CMM Series Micro-connectors

NICOMATIC specializes in the design, development and manufacture of electronic connectors.

The **CMM MICRO CONNECTOR** interconnection system is a 2mm pitch connector (square matrix) with proven **high reliability under the most extreme environmental conditions:**

- Flexible architecture: "Board to Board", "Board toWire" and "Wire toWire" configurations
- Modular and hybrid design: mixed layout full option with Low Frequency – LF (over 5 Amp) – and High Frequency – HF - (over 11 GHz) and High Power - HP - (over 30 Amp)
- High reliability contact design & High performance under harsh use conditions
- Secure: integral jacking mechanism or locking by spring latch

The CMM MICRO CONNECTOR is a complete and standard range of connectors:

- CMM 100 series: 1 row – from 2 to 25 LF contacts
- CMM 200 series: 2 rows – from 4 to 50 LF contacts
- CMM 220 series: 2 rows – from 4 to 60 LF contacts, or up to 15 HF or HP contacts (series 30)
- CMM 320 series: 3 rows – from 6 to 120 LF contacts, or up to 20 HF or HP contacts (series 30)
- CMM 340 series: 3 rows – min. 6 LF contacts and up to 64 HF or HP contacts (series 22)

Direct benefits:

- Space saving: - 40% in surface and over - 60% in volume
- Weight saving: - 20 to - 50% vs. usual solution for same functionalities
- Reduce number of connectors: 2 or 3 connectors in 1 thanks to a modular concept
- Cost effective solution: custom connector assembly from standard components
- Proven success stories in on-board electronic systems
- Full traceability with EN9100:2003
- **Short lead time: 1 week express service**, Premium service, Fast sampling and prototyping
- **Online services** : Free use of My Niomatic service (2D & 3D drawings), automatic part number & mating-half configurators, technical support .

The CMM has been developed for the aerospace, avionics, instrumentation & control, defence and transportation markets, with applications that include IFES, HUDs, flight controls, FADEC units, radars, missiles, electro-optical sighting systems, satellites, mobile radios, power supplies, UAVs and engine controls. It is also used in a growing number of medical, and telecom applications.

Dimension Tables

CMM 100/200 SERIES in male & female styles for LF contacts

CMM SERIES 100 & 200 Male	LF contacts number series 100		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	LF contacts number series 200		4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
	Length in mm	A	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
	Length in mm (Strap)	B	6,7	8,7	10,7	12,7	14,7	16,7	18,7	20,7	22,7	24,7	26,7	28,7	30,7	32,7	34,7	36,7	38,7	40,7	42,7	44,7	46,7	48,7	50,7	52,7
	Length in mm	C	7,4	9,4	11,4	13,4	15,4	17,4	19,4	21,4	23,4	25,4	27,4	29,4	31,4	33,4	35,4	37,4	39,4	41,4	43,4	45,4	47,4	49,4	51,4	53,4
	Length C with Latches fitted		7,8	9,8	11,8	13,8	15,8	17,8	19,8	21,8	23,8	25,8	27,8	29,8	31,8	33,8	35,8	37,8	39,8	41,8	43,8	45,8	47,8	49,8	51,8	53,8

CMM SERIES 100 & 200 Female	LF contacts number series 100		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	LF contacts number series 200		4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
	Length in mm	A	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
	Length in mm	B	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53

LF CONTACTS REFERENCE MARK NUMBER FOR CMM SERIES 200 Male & Female	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	E	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	F	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	G	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50

CMM 220 SERIES in male & female styles for LF contacts

CMM SERIES 220 Male & Female	LF contacts number		4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
	Distance between axis	A	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58
		B	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65
	Length in mm	C	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
	LF contacts reference mark number	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		E	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
		F	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		G	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60

CMM 220 SERIES in male & female styles for HF/HP contacts

CMM 220 Male & Female Special contacts only	Special contacts number		2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Distance between axis	A	4	8	12	16	20	24	28	32	36	40	44	48	52	56
		B	13	17	21	25	29	33	37	41	45	49	53	57	61	65
	Length in mm	C	18	22	26	30	34	38	42	46	50	54	58	62	66	70

CMM 320 SERIES in male & female styles for LF contacts

CMM SERIES 320 Male & Female	LF contacts number		6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120
	Distance between axis	A	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78
		B	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87
	Length in mm	C	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87	89	91	93
	LF contacts reference mark number	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		E	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		F	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
		G	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
		H	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81
		J	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120

CMM 340 SERIES in male & female styles for HF/HP contacts

CMM 340 Male & Female Special contacts only	Special contacts number		4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64
	Distance between axis	A	2,5	5	7,5	10	12,5	15	17,5	20	22,5	25	27,5	30	32,5	35	37,5	40	42,5	45	47,5	50	52,5	55	57,5	60	62,5	65	67,5	70	72,5	75	77,5
		B	12,5	15	17,5	20	22,5	25	27,5	30	32,5	35	37,5	40	42,5	45	47,5	50	52,5	55	57,5	60	62,5	65	67,5	70	72,5	75	77,5	80	82,5	85	87,5
	Length in mm	C	18,5	21	23,5	26	28,5	31	33,5	36	38,5	41	43,5	46	48,5	51	53,5	56	58,5	61	63,5	66	68,5	71	73,5	76	78,5	81	83,5	86	88,5	91	93,5

CMM Specifications (with LF contacts)

MATERIALS

INSULATOR: Special PPS (Polyphenylene Sulfide Fiberglass filled thermoplastic) UL 94-V0

- Radiation resistance
- No humidity absorption
- Oxygen free

Note : PPS characteristics are recognized for space applications

P.C. LF CONTACTS :

Male: Tail : copper alloy / Ni + Au flash 0,1 µ Contact area : copper alloy / Ni + Au > 1 µ	**Female:** Body : copper alloy / Ni + Au 0,2 µ Socket : beryllium copper / Ni + Au > 1,25µ

CRIMP LF CONTACTS :

Male: Body : copper alloy / Ni + Au > 1 µ	**Female:** Body : copper alloy / Ni + Au > 0,2 µ Socket : beryllium copper / Ni + Au > 1,25µ

FIXING HARDWARE:

- Jackscrew: Stainless steel.
- Latch : Beryllium copper/plated nickel (CMM 100/200 series only)

ELECTRICAL

• All contacts	3 A max. @ 25°C 2.2 A max. @ 85°C
• Working voltage (sea level)	Tested at 800 V DC
• Proof voltage	Tested at 1 200 V DC
• Contact resistance (initially)	max. 10 mΩ
• Insulation resistance	1 000 MΩ min.

MECHANICAL

• Mechanical operations	Up to 2500 cycles
• Contact insertion and withdrawal force	2 N max. / 0.2 N min. per contact
• Contact retention in insulator	10 N min.
• Contact replacement in insulator	1-3 cycles (Crimp contacts only)

ENVIRONMENTAL

• Temperature cycling	From - 60°C to + 260°C **Reflow solder process compatible (+260°C)**
• Vibration severity	0.75 mm, 10 g RMS 6 hours long random with superimposed sinusoid. No intermittencies measured when using an H.S.L.I (High Speed Logic Interrupt) detector with a trip threshold of 2 ns. MIL-DTL-55302F Test Condition III [147.1 m/s2 (15 gn) peak]
• Shock severity	100 g for 6 ms
• Solvent resistance	

Note :
The CMM micro-connectors are designed to meet or exceed the relevant electrical and environmental performances described in MIL-DTL-55302F & BS-9525-F0033 standards.

HF / HP contacts specifications

MATERIALS

- **Spring loaded parts** — Be/Cu gold plated
- **Other metal parts** — Copper alloy
- **Insulator** — PTFE (HF)
- **Retaining clip** — Be/Cu Ni plated

MECHANICAL

- Mechanical operations — Up to 500 cycles
- Insertion force — From 0.60 to 5 N per contact
- Withdrawal force — From 0.50 to 2 N per contact
- Secure overlapping — 1.30 mm
- Contact replacement in insulator — 50 cycles for HF / HP 30 series (5 cycles for HF / HP 22 series)

ELECTRICAL

High Power (HP) Contact	Series 30	Series 22
Intensity per contact	35A	20A
Intensity per connector	20A	10A
Dielectric Voltage (seal level)		
Withstanding voltage	1500VRMS	900VRMS
Rated voltage	500 VRMS	300 VRMS
High Altitude 70000ft :		
Withstanding voltage	360 VRMS	300 VRMS
Rated voltage	120 VRMS	100 VRMS
Contact resistance max. 3 mΩ		

High Frequency (HF) Contact

Impedance 50 Ω / 75Ω

Insulation resistance 10^6 MΩ

Insulation between 2 contacts -75 dB (depending on cable)

Withstanding voltage (sea level) 1000 VRMS

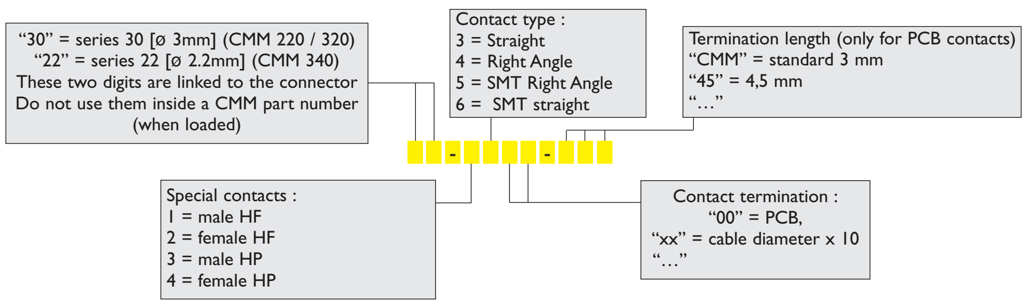
Rated voltage 80 v AC / 500 mA

Contacts HF on cable	**Series 30**	**Serie 22**
Frequency range up to	20 GHz	6 GHz

ENVIRONMENTAL

- Temperature cycling — From -60°C to +260°C
- Salt spray test — 96 hrs *
- Humidity test — 56 days @ 90% humidity

HF / HP CONTACTS PART NUMBERING



Important notice:

According to the routines test other than MIL our technical features for CMM Micro-connectors reach a higher result. For more information, please feel in the contact form on the website.

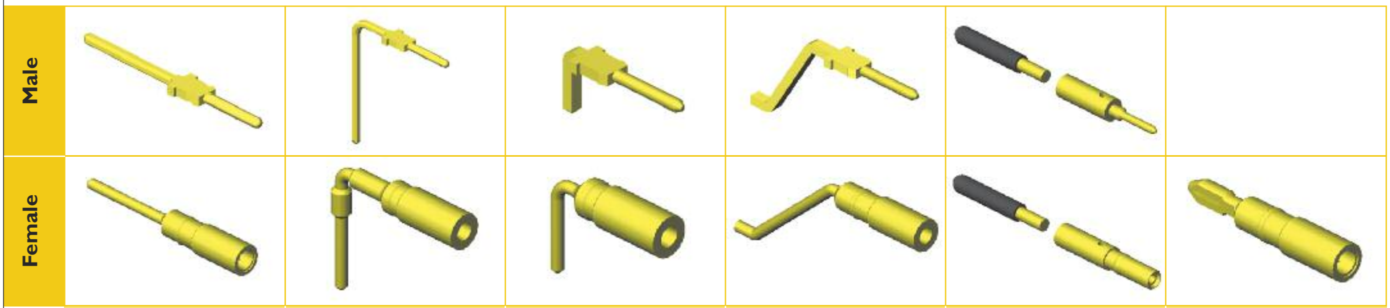
For example:

- Mechanical operations: up to 5 000 cycles
- High temperature test: 1 000H at 250°C
- Application with LVDS signal @ 400 MHz, impedance 100 Ohm
- High speed: USB, 1Gb/s Ethernet…

* without fixings

LF : low frequency contacts

PRESENTATION



Straight PCB Type Y	90° PCB Type V	Straight SMT Type T	90° SMT Type R	Crimp Type S - C	Straight PCB Type PF Press fit

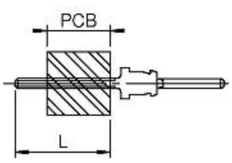
INFORMATION TABLE

CMM Range		Use												
		Straight on PCB						90° on PCB		Straight SMT		90° SMT	Crimp	
100/200	Male	Y L=3,0	YL L=4,5	YM L=5,1	YX L=9,1			V L=3,0	VL L=4,5	T L=2,25	TL L=3,35	R L=0,9	C Gauge 22	S Gauge 24-28
	Female	Y L=3,0	YL L=4,5			YC L=1,2	PF Press fit	V L=3,0	VL L=4,5	T L=2,25	TL L=3,35	R L=0,9	C Gauge 22	S Gauge 24-28
220	Male	Y L=3,0	YL L=4,5	YM L=5,1	YX L=9,1			V L=3,0	VL L=4,5	T L=2,25	TL L=3,35	R L=0,9	C Gauge 22	S Gauge 24-28
	Female	Y L=3,0	YL L=4,5			YC L=1,2	PF Press fit	V L=3,0	VL L=4,5	T L=2,25	TL L=3,35	R L=0,9	C Gauge 22	S Gauge 24-28
320	Male	Y L=3,0	YL L=4,5	YM L=5,1	YX L=9,1			V L=3,0	VL L=4,5			R L=0,9	C Gauge 22	S Gauge 24-28
	Female	Y L=3,0	YL L=4,5				PF Press fit	V L=3,0	VL L=4,5				C Gauge 22	S Gauge 24-28
340	Male	Y L=3,0	YL L=4,5	YM L=5,1	YX L=9,1			V L=3,0	VL L=4,5				C Gauge 22	S Gauge 24-28
	Female	Y L=3,0	YL L=4,5				PF Press fit	V L=3,0	VL L=4,5				C Gauge 22	S Gauge 24-28

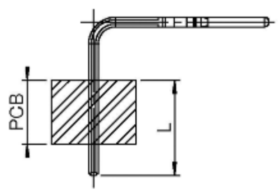
L=6,50 / 8,00 / 10,50 / 12,00 / 14,50 / 16,00 mm upon request (only for straight on PCB male contacts)

Standard contact
Any other type of contact upon request only

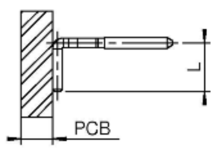
Straight on PCB



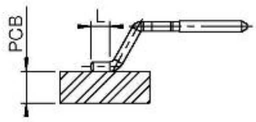
90° on PCB



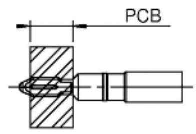
SMT straight on PCB



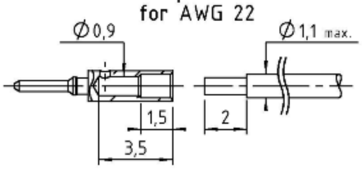
SMT 90° on PCB



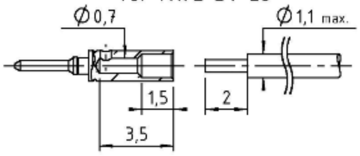
Pressfit
Straight on PCB



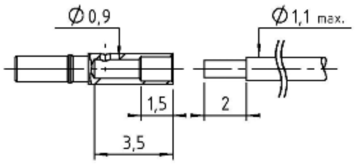
Ref : 12960
Male crimp contact "C"
for AWG 22



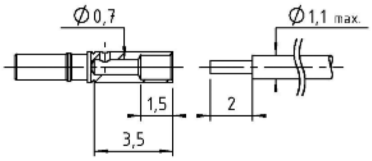
Ref : 12969
Male crimp contact "S"
for AWG 24-28



Ref : C13064-P
Female crimp contact "C"
for AWG 22 cable

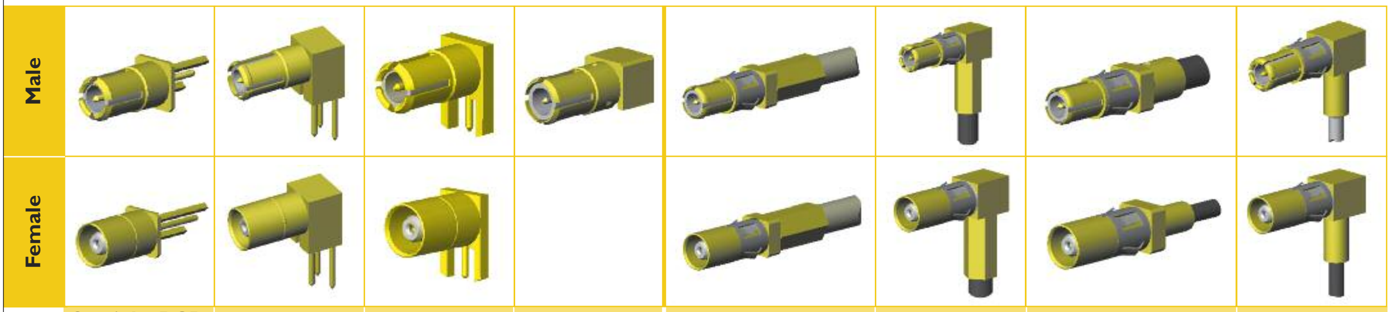


Ref : C12468
Female crimp contact "S"
for AWG 24-28



HF : high frequency contacts (series 30)

PRESENTATION



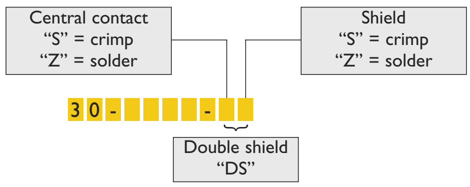
Straight PCB	90° PCB	Straight SMT	90° SMT Card edge	Straight Crimp	90° Crimp	Straight solder	90° solder
Type D				Type E			

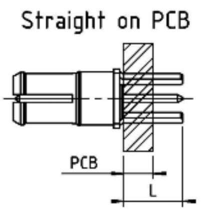
INFORMATION TABLE

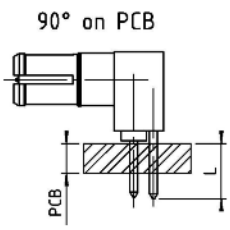
CMM Range		Typical use										
		Type of contacts to be used in the CMM connector with cavities for HF/HP contacts only										
		Type D for special contacts on PCB (Eg.221D00F22-00 nbr of special contact-1300CMM)							Type E for special contacts on cable			
		Straight on PCB		90° on PCB		Straight SMT	90° SMT Card edge		Straight Crimp	90° Crimp	Straight solder	90° solder
100/200	Male											
	Female											
220	Male	30-1300-CMM L=3,0	30-1300-45 L=4,5	30-1400-CMM L=3,0	30-1400-45 L=4,5	30-1600	30-1500-CMM no LF contact	30-1500-12	30-13XX-SS 30-13XX-DS xx=cable type	30-14XX-ZS 30-14XX-DS xx=cable type	30-13XX-ZZ xx=cable type	30-14XX-ZZ xx=cable type
	Female	30-2300-CMM L=3,0	30-2300-45 L=4,5	30-2400-CMM L=3,0	30-2400-45 L=4,5	30-2600			30-23XX-SS 30-23XX-DS xx=cable type	30-24XX-ZS 30-24XX-DS xx=cable type	30-23XX-ZZ xx=cable type	30-24XX-ZZ xx=cable type
320	Male	30-1300-CMM L=3,0	30-1300-45 L=4,5	30-1400-CMM L=3,0	30-1400-45 L=4,5			30-1500-12	30-13XX-SS 30-13XX-DS xx=cable type	30-14XX-ZS 30-14XX-DS xx=cable type	30-13XX-ZZ xx=cable type	30-14XX-ZZ xx=cable type
	Female	30-2300-12 L=3,0	30-2300-14 L=4,5	30-2400-CMM L=3,0	30-2400-45 L=4,5				30-23XX-SS 30-23XX-DS xx=cable type	30-24XX-ZS 30-24XX-DS xx=cable type	30-23XX-ZZ xx=cable type	30-24XX-ZZ xx=cable type
340	Male											
	Female											

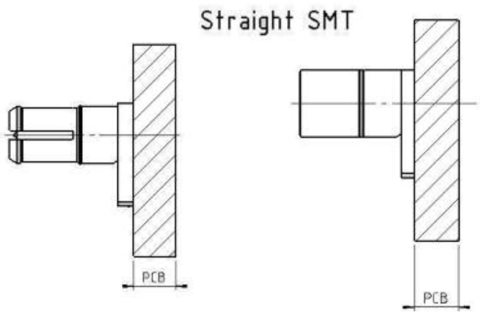
Standard contact
Any other type of contact upon request only

XX = 12, 20, 24, 26 Eg. 24 = cable Ø 2,4 XX = 20 or 26 for DS cable	XX = 47, 85 Eg. 47 for UT47 cable



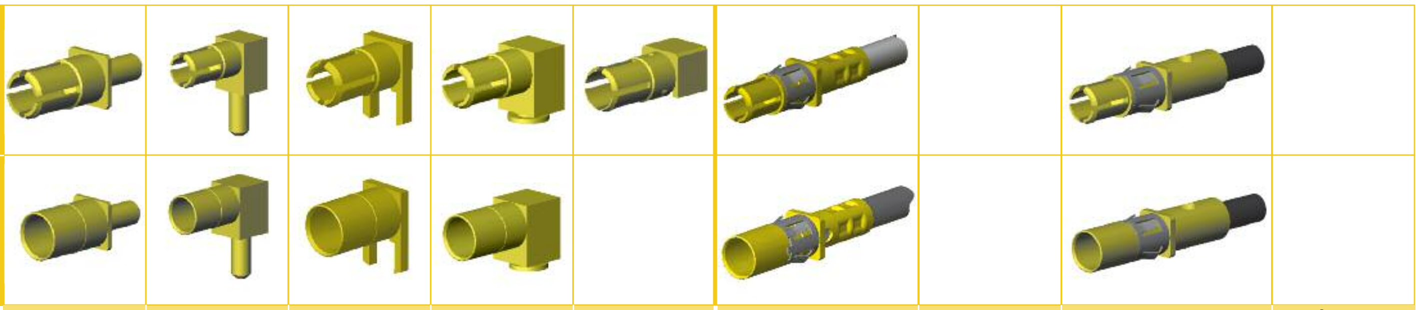






HP : high power contacts (series 30)

PRESENTATION



	Straight PCB	90° PCB	Straight SMT	90° SMT	90° SMT Card edge	Straight Crimp	90° Crimp	Straight solder	90° solder
Male									
Female									
	Type D					Type E			

INFORMATION TABLE

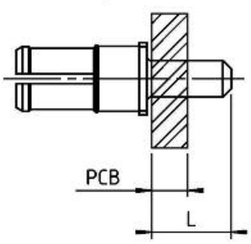
CMM Range		Typical use											
		Type of contacts to be used in the CMM connector with cavities for HF/HP contacts only											
		Type D for special contacts on PCB								Type E for special contacts on cable			
		Straight on PCB		90° on PCB		Straight SMT	90° SMT	90° SMT Card edge		Straight Crimp	90° Crimp	Straight solder	90° solder
100/200	Male												
	Female												
220	Male	30-3300-CMM L=3,0	30-3300-45 L=4,5	30-3400-CMM L=3,0	30-3400-45 L=4,5	30-3600	30-3500	30-3500-CMM no LF contact	30-3500-12	30-33XX		30-33XX	
	Female	30-4300-CMM L=3,0	30-4300-45 L=4,5	30-4400-CMM L=3,0	30-4400-45 L=4,5	30-4600	30-4500			30-43XX		30-43XX	
320	Male	30-3300-CMM L=3,0	30-3300-45 L=4,5	30-3400-CMM L=3,0	30-3400-45 L=4,5				30-3500-12	30-33XX		30-33XX	
	Female	30-4300-12 L=3,0	30-4300-14 L=4,5	30-4400-CMM L=3,0	30-4400-45 L=4,5					30-43XX		30-43XX	
340	Male												
	Female												

Standard contact
Any other type of contact upon request only

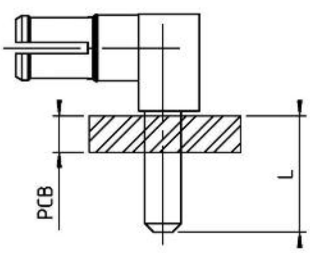
XX = 05, 08…
Eg. 08 for 8A

Please refer to page 94

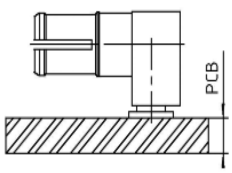
Straight on PCB



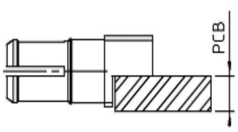
90° on PCB



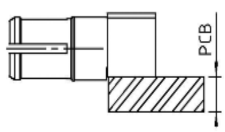
90° SMT



90° SMT Card edge (without LF contacts)

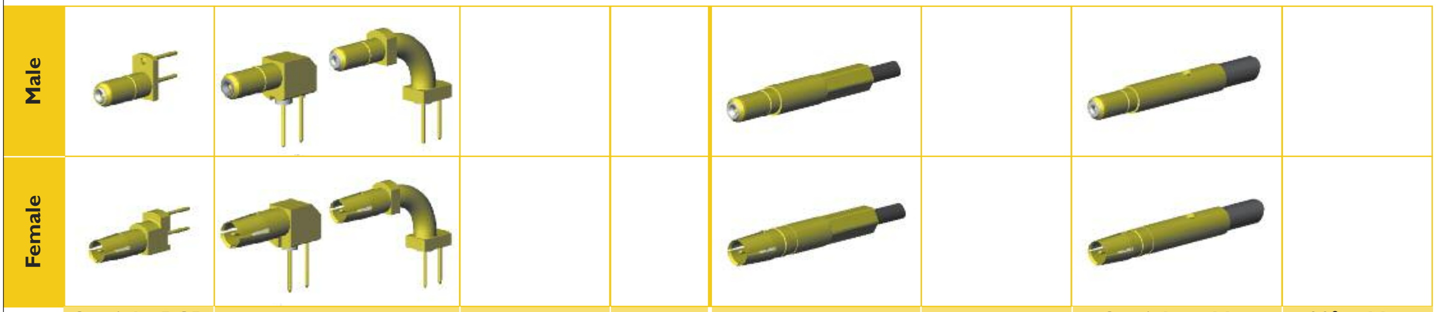


90° SMT Card edge (with LF contacts)



HF : high frequency contacts (series 22)

PRESENTATION



Straight PCB	90° PCB	Straight SMT	90° SMT	Straight Crimp	90° Crimp	Straight solder	90° solder
Type D				Type E			

INFORMATION TABLE

CMM Range		Typical use										
		Type of contacts to be used in the CMM connector with cavities for HF/HP contacts only										
		Type D for special contacts on PCB							Type E for special contacts on cable			
		Straight on PCB		90° on PCB		Straight SMT	90° SMT		Straight Crimp	90° Crimp	Straight solder	90° solder
100/200	Male											
	Female											
220	Male											
	Female											
320	Male											
	Female											
340	Male	22-1300-12 L=3,0	22-1300-14 L=4,5	22-1400-12* 22-1400-22** L=3,0	22-1400-14* 22-1400-24** L=4,5				22-1312-ZS		22-1320-ZZ	
	Female	22-2300-12 L=3,0	22-2300-14 L=4,5	22-2400-12* 22-2400-22** L=3,0	22-2400-14* 22-2400-24** L=4,5				22-2312-ZS		22-2320-ZZ	

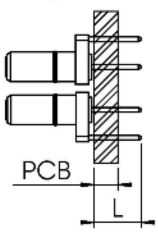
Standard contact
Any other type of contact upon request only

12 = cable Ø 1,2

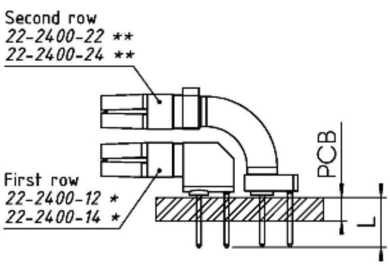
20 = cable Ø 2,0

* First row : 22-1400-12 / 22-1400-14 / 22-2400-12 / 22-2400-14
** Second row : 22-1400-22 / 22-1400-24 / 22-2400-22 / 22-2400-24

Straight on PCB



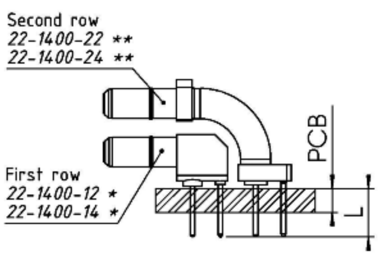
90° on PCB



When a two-row connector mixes a 22-2400-12 and a 22-2400-22 contact, the P/N of the HF contact changes to 2400-02.

When a two-row connector mixes a 22-2400-14 and a 22-2400-24 contact, the P/N of the HF contact changes to 2400-04.

90° on PCB

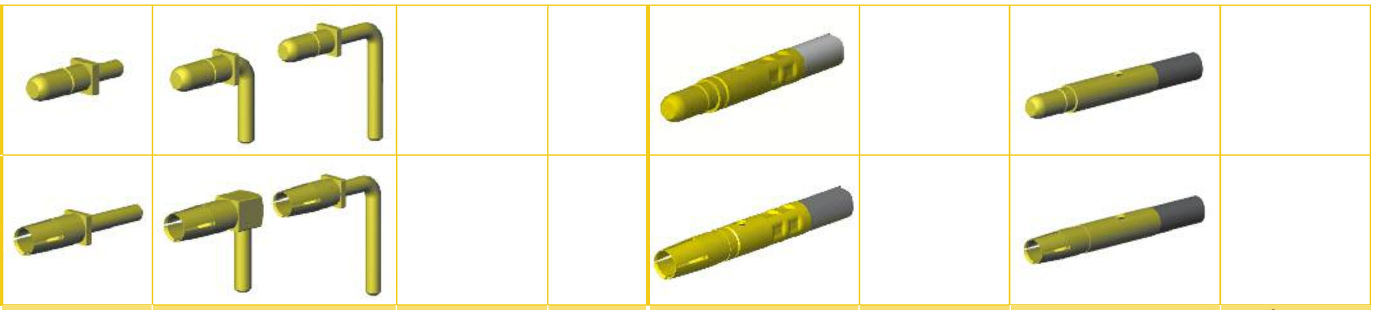


When a two-row connector mixes a 22-1400-12 and a 22-1400-22 contact, the P/N of the HF contact changes to 1400-02.

When a two-row connector mixes a 22-1400-14 and a 22-1400-24 contact, the P/N of the HF contact changes to 1400-04.

HP : high power contacts (series 22)

PRESENTATION



	Straight PCB	90° PCB	Straight SMT	90° SMT	Straight Crimp	90° Crimp	Straight solder	90° solder
Male								
Female								
	Type D				Type E			

INFORMATION TABLE

CMM Range		Typical use										
		Type of contacts to be used in the CMM connector with cavities for HF/HP contacts only										
		Type D for special contacts on PCB							Type E for special contacts on cable			
		Straight on PCB		90° on PCB		Straight SMT	90° SMT		Straight Crimp	90° Crimp	Straight solder	90° solder
100/200	Male											
	Female											
220	Male											
	Female											
320	Male											
	Female											
340	Male	22-3300-12 L=3,0	22-3300-14 L=4,5	22-3400-12* 22-3400-22** L=3,0	22-3400-14* 22-3400-24** L=4,5				22-33XX		22-33XX	
	Female	22-4300-12 L=3,0	22-4300-14 L=4,5	22-4400-12* 22-4400-22** L=3,0	22-4400-14* 22-4400-24** L=4,5				22-43XX		22-43XX	

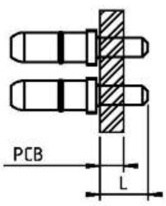
Standard contact
Any other type of contact upon request only

XX = 05, 08, 10
10 = 10A

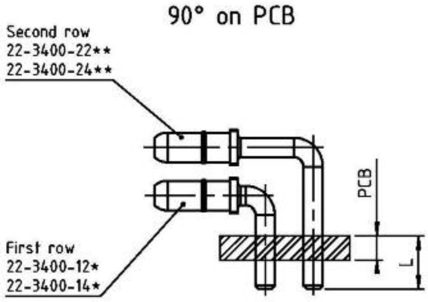
Please refer to page 102

* First row : 22-3400-12 / 22-3400-14 / 22-4400-12 / 22-4400-14
** Second row : 22-3400-22 / 22-3400-24 / 22-4400-22 / 22-4400-24

Straight on PCB



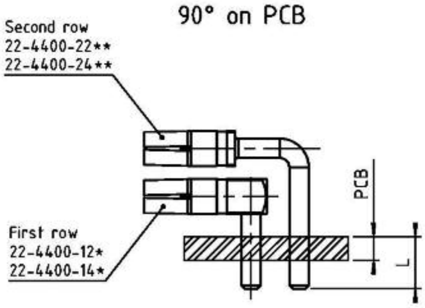
90° on PCB



When a two-row connector mixes a 22-3400-12 and a 22-3400-22 contact, the P/N of the HF contact changes to 3400-02.

When a two-row connector mixes a 22-3400-14 and a 22-3400-24 contact, the P/N of the HF contact changes to 3400-04.

90° on PCB

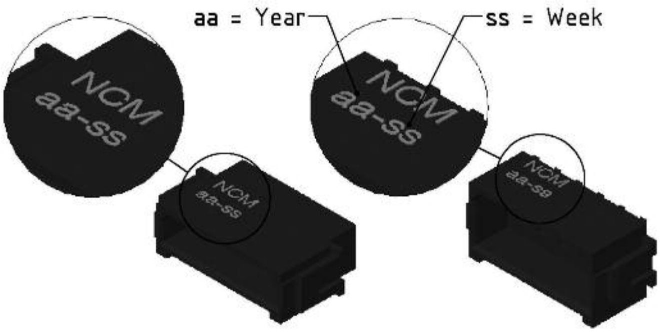


When a two-row connector mixes a 22-4400-12 and a 22-4400-22 contact, the P/N of the HF contact changes to 4400-02.

When a two-row connector mixes a 22-4400-14 and a 22-4400-24 contact, the P/N of the HF contact changes to 4400-04.

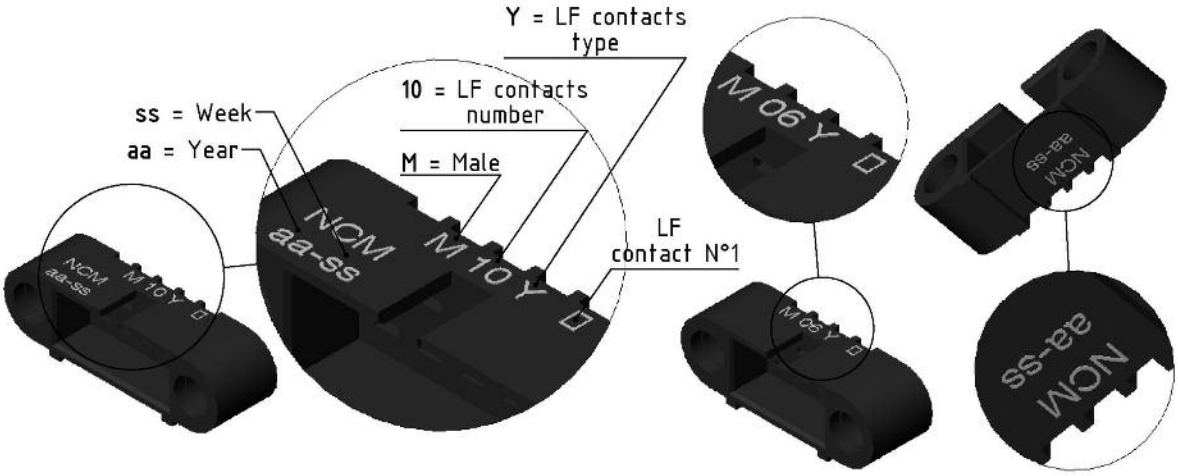
Male housing marking

CMM 100/200



Marking : NCM (Nicomatic) + date code (Lot number)

CMM 220



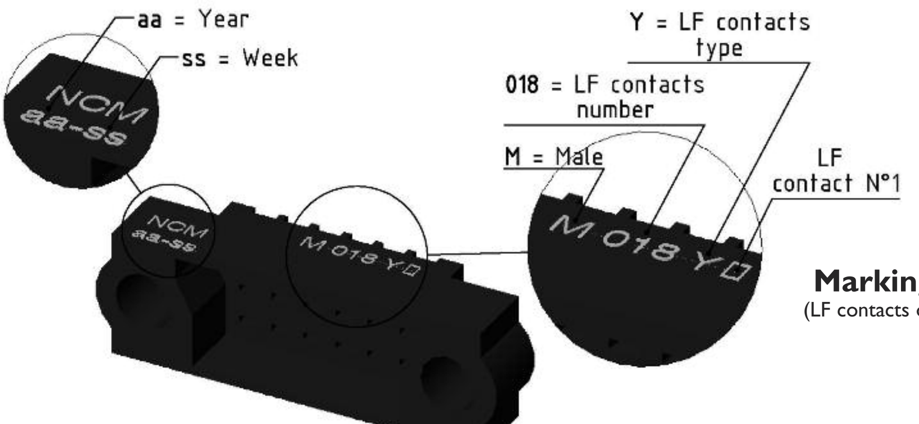
Marking 1 : NCM (Nicomatic) + date code (Lot number)
(LF contacts only) Connector P/N
LF contact number 1

Marking on two faces if the number of LF contacts is < to 10.

Marking 2 : NCM (Nicomatic) + date code (Lot number) : CMM 220 mixed layout (LF + HF/HP)
(as for CMM 100/200)
CMM 220 with HF/HP contacts
CMM 220 with 04 LF contacts

Marking LF contacts type : Y-YL-V-VL-R-T-S-C

CMM 320/340



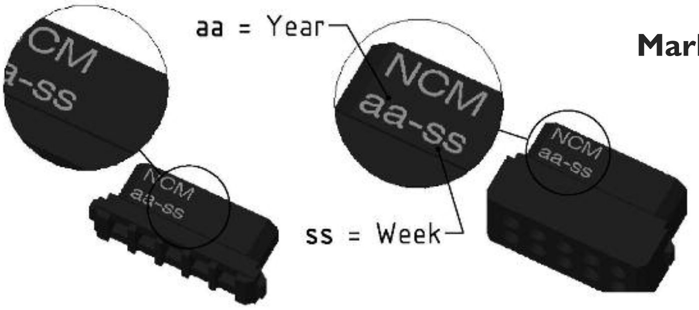
Marking 1 : NCM (Nicomatic)
(LF contacts only)
/ date code (Lot number)
Connector P/N
LF contact number 1

Marking 2 : NCM (Nicomatic) / date code (Lot number) : CMM 320 mixed layout
(as for CMM 100/200)
CMM 320 with HF/HP contacts
CMM 340

Marking LF contacts type : Y-YL-V-VL-S-C

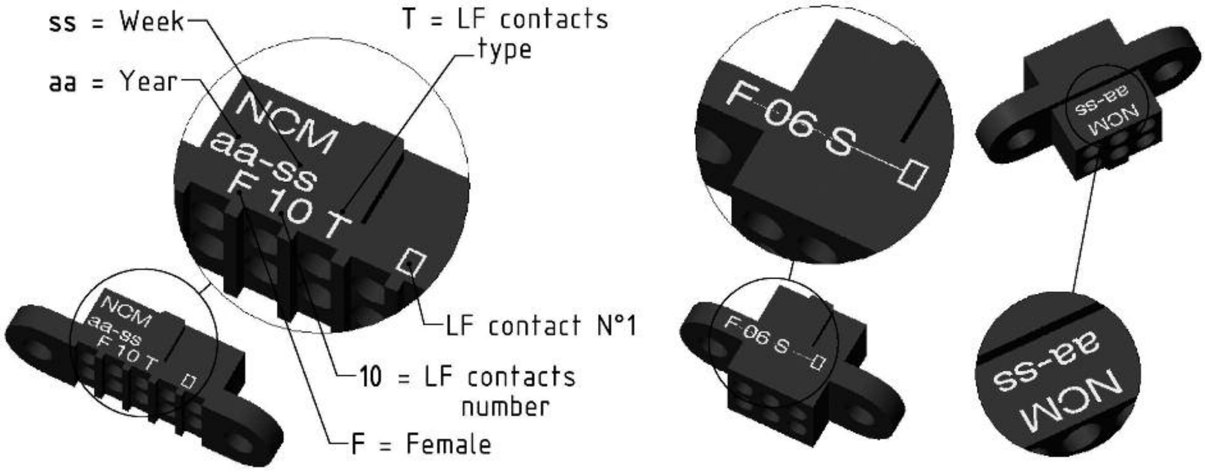
Female housing marking

CMM 100/200



Marking : NCM (Nicomatic) + date code (Lot number)

CMM 220



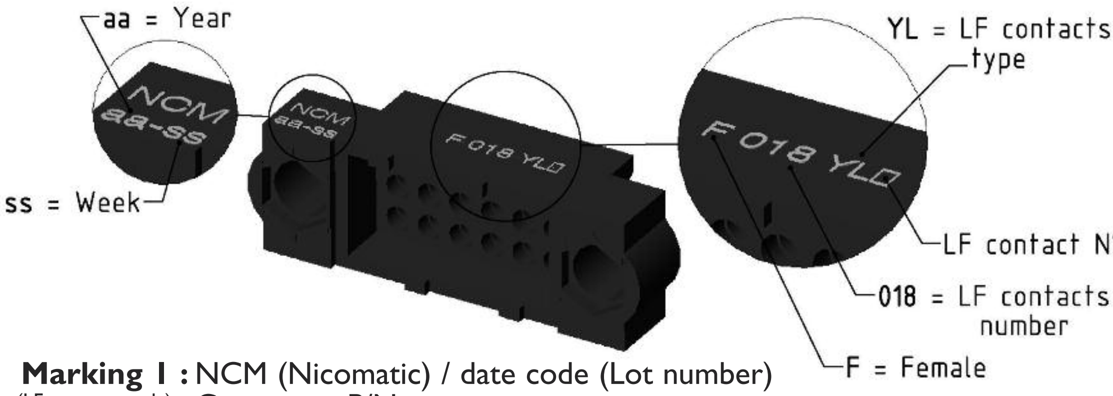
Marking 1 : NCM (Nicomatic) + date code (Lot number)
(LF contacts only) Connector P/N
LF contact number 1

Marking on two faces if the number of LF contacts is < to 10.

Marking 2 : NCM (Nicomatic) + date code (Lot number) : CMM 220 mixed layout (LF + HF/HP)
(as for CMM 100/200) CMM 220 with HF/HP contacts
CMM 220 with 04 LF contacts

Marking LF contacts type : Y-YL-V-VL-R-T-S-C-PF

CMM 320/340



Marking 1 : NCM (Nicomatic) / date code (Lot number)
(LF contacts only) Connector P/N
LF contact number 1

Marking 2 : NCM (Nicomatic) / date code (Lot number) : CMM 320 mixed layout HF/HP contacts
(as for CMM 100/200) CMM 320 with HF/HP contacts
CMM 340

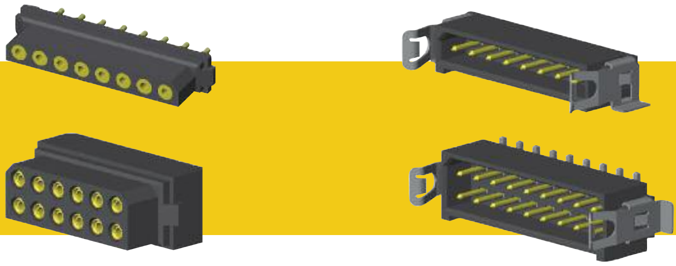
Marking LF contacts type : Y-YL-V-VL-S-C-PF

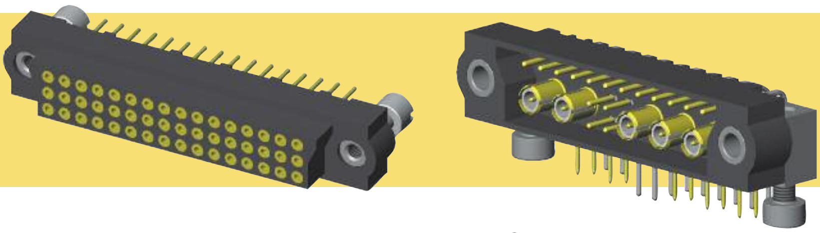
Nicomatic CMM part

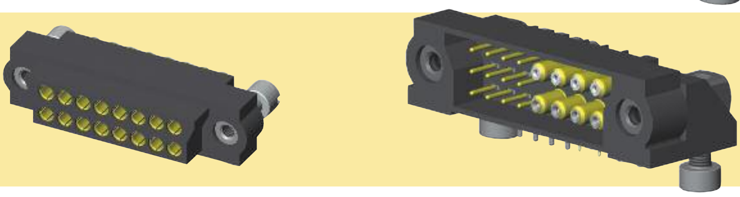
	Code with Low Frequency contacts only					Additional code for mixed-layout connector (HF/HP)		
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware	Number of HF/HP contacts pin 1 side (LF contact number 1)	Number of HF/HP contacts opposite to LF contact number 1	HF/HP Contact Type
	■ ■	■	■	n n n	■	– y y	z z	– ■■■■■■■
1 row	10	1 male 2 female	Refer to table on page 7	02 to 25 (nn)	With Latch page 22 Without Latch	No HF / HP contacts		
2 rows	20	1 male 2 female	Refer to table on page 7	04 to 50 (nn)	With Latch page 22 Without Latch	No HF / HP contacts		
2 rows	22	1 male 2 female	Refer to table on page 7	04 to 60 (nn)	Refer to pages 43 to 46	Depends upon the number of LF contacts If use with shifted central key, please refer to page 38 HF / HP : 15 contacts max. Type of HF/HP contact : please refer to pages 8-9		Coaxmatic™ 30
3 rows	32	1 male 2 female	Refer to table on page 7	006 to 120 (nnn)	Refer to pages 69 to 74	Depends upon the number of LF contacts HF / HP : 20 contacts max. Type of HF/HP contact : please refer to pages 8-9		Coaxmatic™ 30
3 rows	34	1 male 2 female	Refer to table on page 7	Refer to the series 320 (nnn)	Refer to pages 69 to 74	Depends upon the number of LF contacts HF / HP : 64 contacts max. Type of HF/HP contact : please refer to pages 10-11		Coaxmatic™ 22

Note :
For any configuration outside of this part numbering system, please contact us.

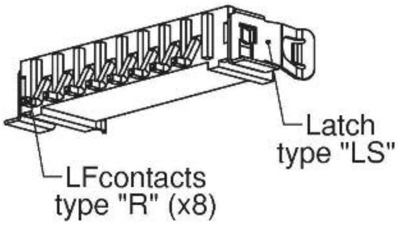
numbering system



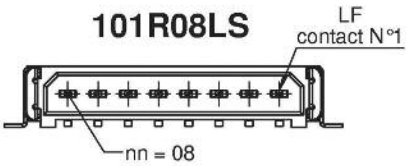


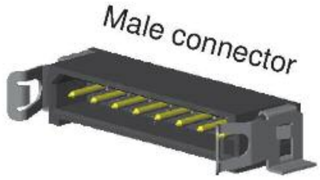


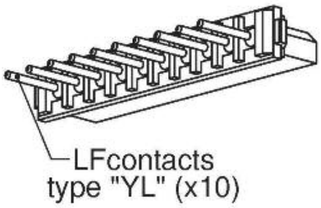
CMM 100 / 200



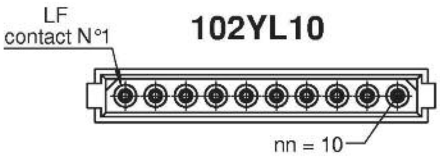
101R08LS

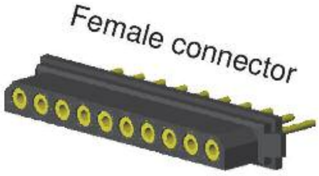


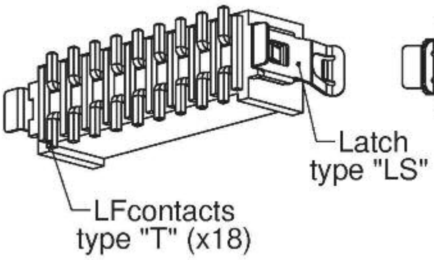




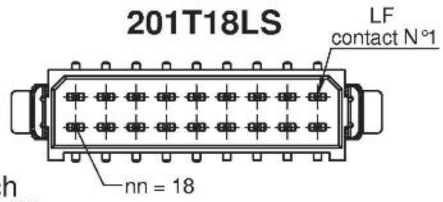
102YL10

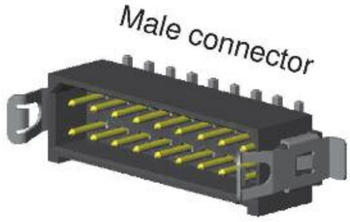


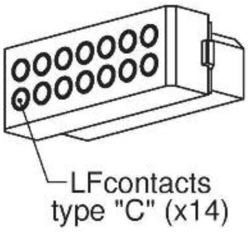




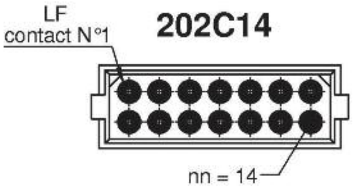
201T18LS

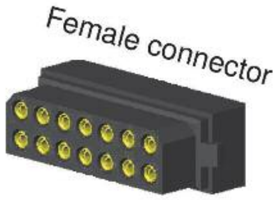






202C14



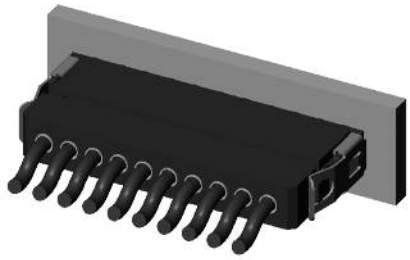


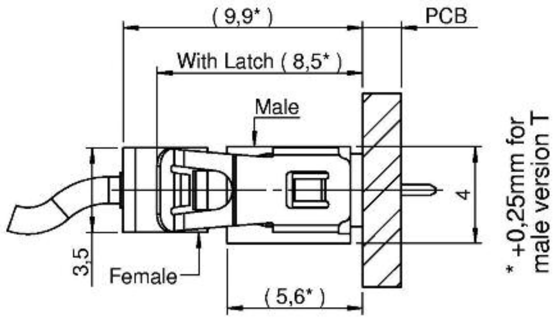
PART NUMBERING REMINDER

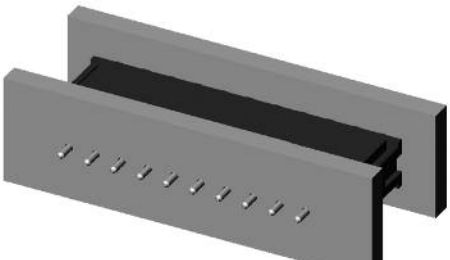
	Code with Low Frequency contacts only				
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware
				n n	
1 row	10	1 male 2 female	Refer to table on page 7	02 to 25	With Latch "L", "FL", "LS" page 22 Without Latch " "
2 rows	20	1 male 2 female	Refer to table on page 7	04 to 50	With Latch "L", "FL", "LS" page 22 Without Latch " "

Configuration
CMM 100

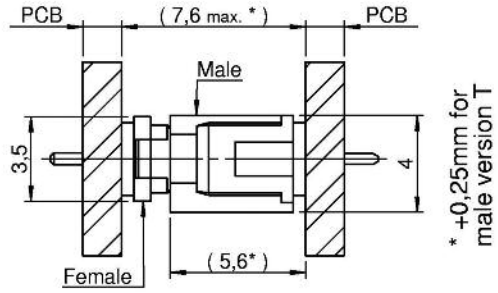
CONNECTOR SPACING

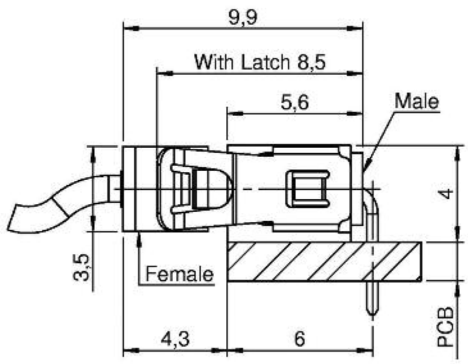


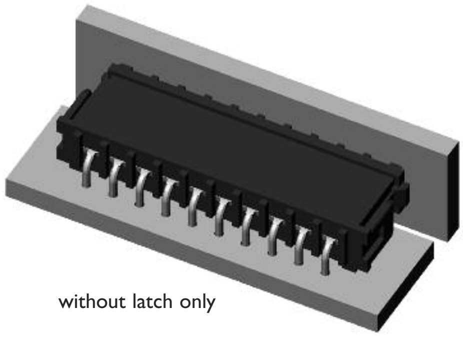




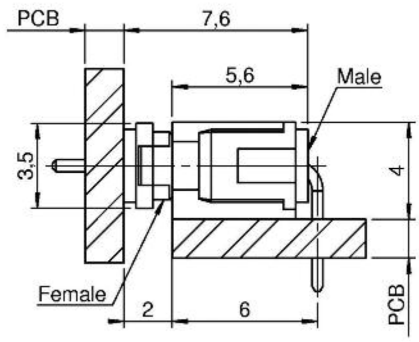
without latch only





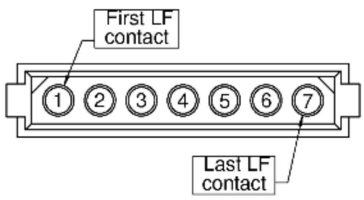


without latch only



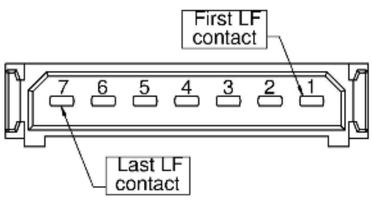
CONTACTS POSITIONS

Female connectors
(shown looking onto mating face)



LF contacts min. 02 / max. 25

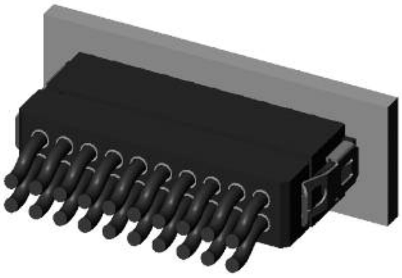
Male connectors
(shown looking onto mating face)

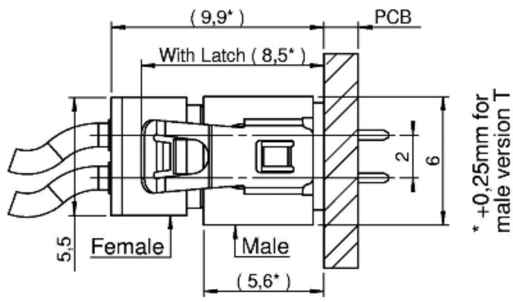


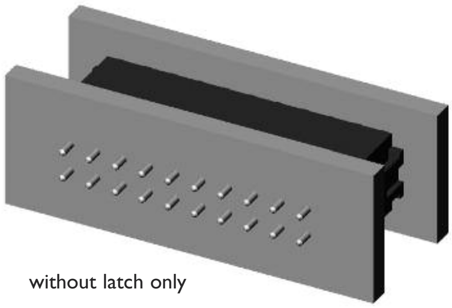
LF contacts min. 02 / max. 25

Configuration
CMM 200

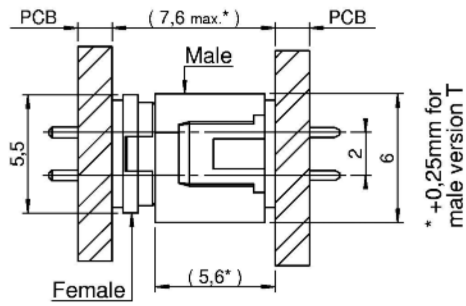
CONNECTOR SPACING

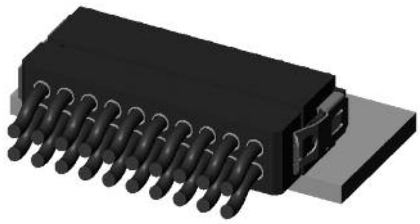


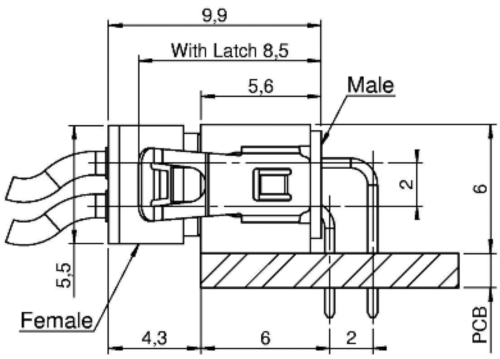


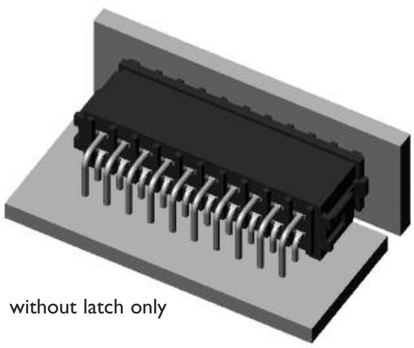


without latch only

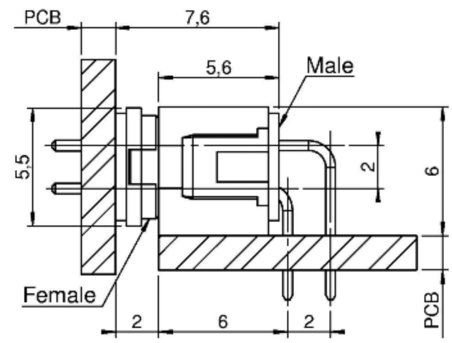






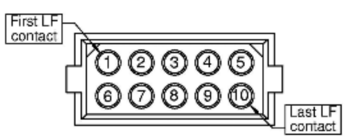


without latch only



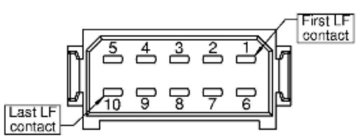
CONTACTS POSITIONS

Female connectors
(shown looking onto mating face)



LF contacts min. 04 / max. 50

Male connectors
(shown looking onto mating face)



LF contacts min. 04 / max. 50

CMM 100 / 200 male

STRAIGHT PCB

Part numbering :

"1" = Series 100
"2" = Series 200

Type :Y-YL

0 1 n n

"L", "FL" = with latch page 22
" " = without latch

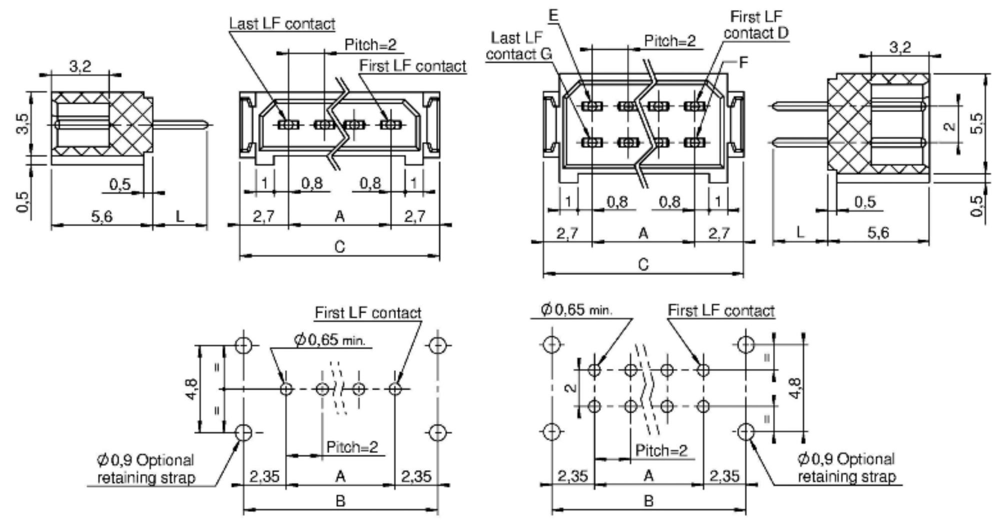
nn = number of LF contacts

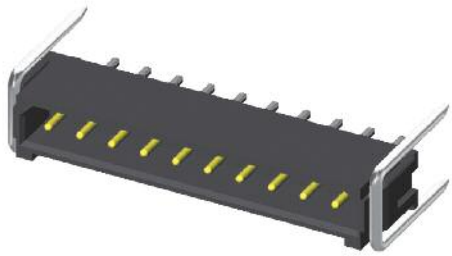
Type	L
Y	3
YL	4,5

Calculation :

CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 4,7	**B** = A + 4,7
C = A + 5,4	**C** = A + 5,4

Refer to dimension table on cover page





nn min = 02 nn max = 25

nn min = 04 nn max = 50

90° PCB

Part numbering :

"1" = Series 100
"2" = Series 200

Type :V-VL

0 1 n n

"L", "FL" = with latch page 22
" " = without latch

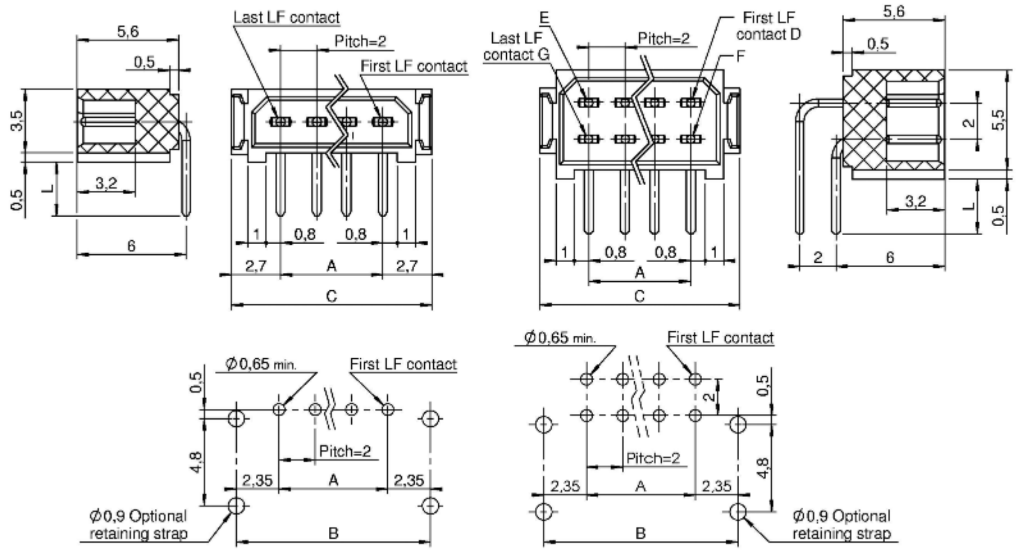
nn = number of LF contacts

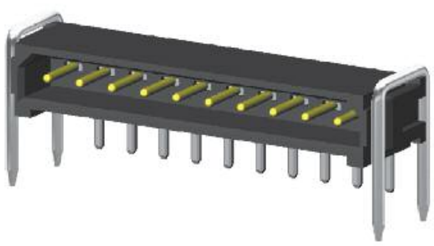
Type	L
V	3
VL	4,5

Calculation :

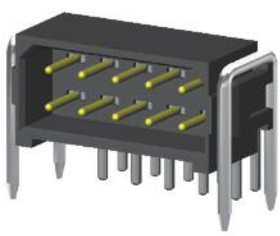
CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 4,7	**B** = A + 4,7
C = A + 5,4	**C** = A + 5,4

Refer to dimension table on cover page





nn min = 02 nn max = 25



nn min = 04 nn max = 50

CMM 100 / 200 male

STRAIGHT SMT

Part numbering :

"1" = Series 100
"2" = Series 200

Type :T-TL

0 1 _ _ n n _

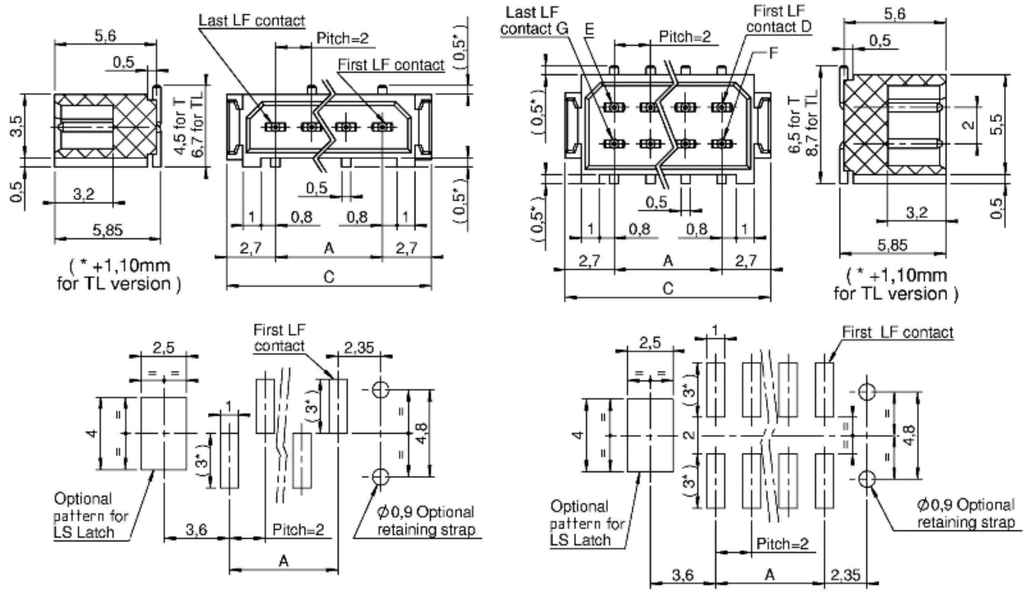
"LS", "L", "FL" = with latch page 22
" " = without latch

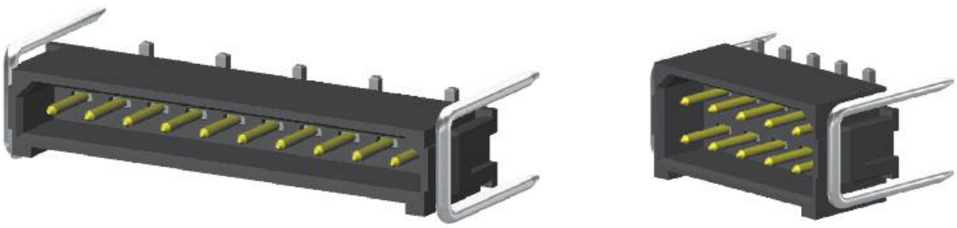
nn = number of LF contacts

Calculation :

CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
C = A + 5,4	**C** = A + 5,4

Refer to dimension table on cover page





nn min = 02 nn max = 25

nn min = 04 nn max = 50

90° SMT

Part numbering :

"1" = Series 100
"2" = Series 200

0 1 R n n _

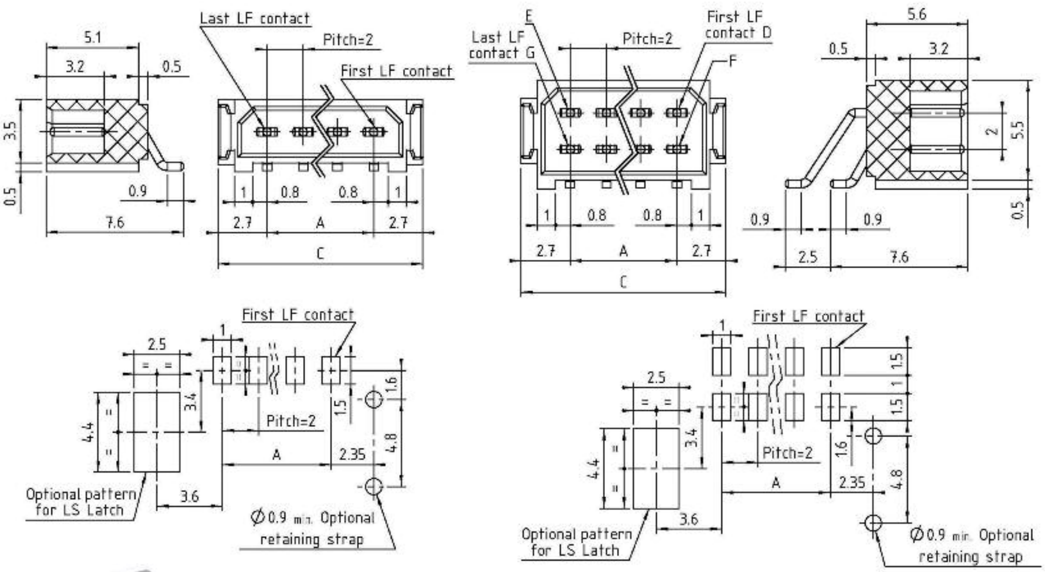
"LS", "L", "FL" = with latch page 22
" " = without latch

nn = number of LF contacts

Calculation :

CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
C = A + 5,4	**C** = A + 5,4

Refer to dimension table on cover page



nn min = 02 nn max = 25

nn min = 04 nn max = 50

CMM 100 / 200 male

CRIMP

Part numbering :

"1" = Series 100
"2" = Series 200

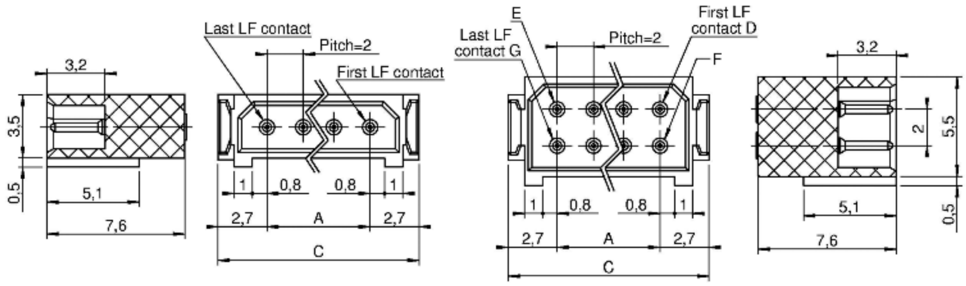
Type : S-C

0 1 _ _ n n _

"L", "FL" = with latch page 22
" " = without latch

Type	Gauge
S	24-28
C	22

nn = number of LF contacts

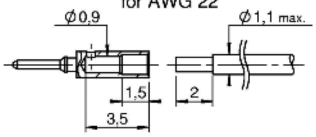


Calculation :

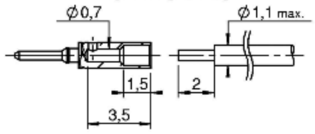
CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
C = A + 5,4	**C** = A + 5,4

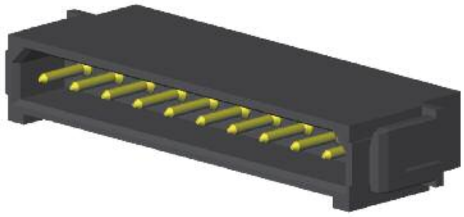
Refer to dimension table on cover page

Ref : 12960
Male crimp contact "C"
for AWG 22

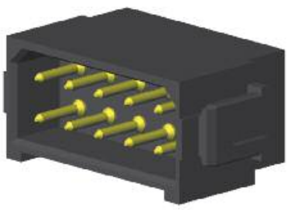


Ref : 12969
Male crimp contact "S"
for AWG 24-28





nn min = 02 nn max = 25



nn min = 04 nn max = 50

RETENTION LATCHES FOR CMM 100 / 200 MALE

Straight latch with locking "L"

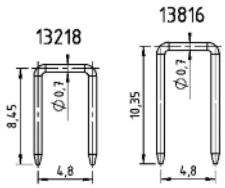
Straight latch without locking "FL"

Latch for CMM connector with T termination style "LS"

Latch for CMM connector with R termination style "LS"

The strain relief straps are supplied with all male CMM 100 / 200 connectors mounted with latches L or FL type except for Y & YL terminations

PCB Thickness	P/N	Termination style			
< 2,5 mm	13218	V	Y	T/TL	R
> 2,5 mm	13816	VL	YL	T/TL	R



If no strain relief straps with your connector, please order under P/Ns on the left

CMM 100 / 200 female

STRAIGHT PCB

Part numbering :

“1” = Series 100
“2” = Series 200

0 2 _ n n

Type :Y-YL

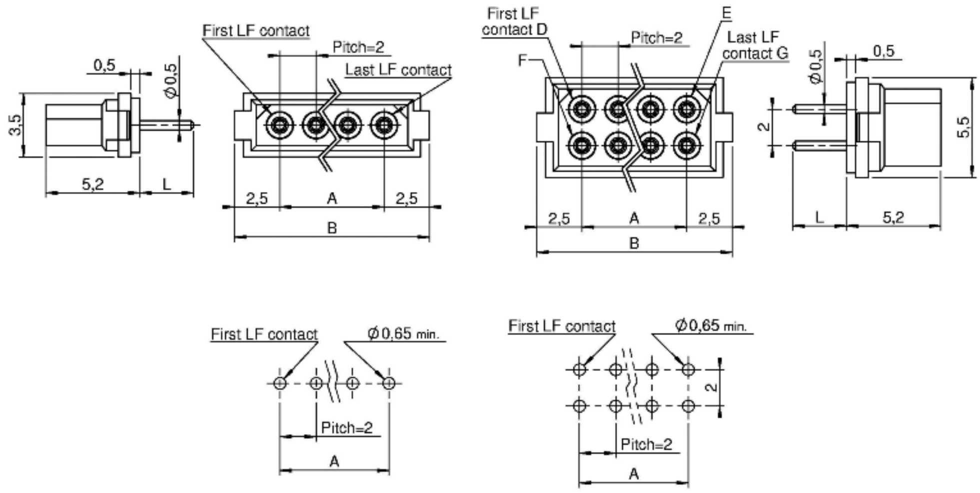
Type	L
Y	3
YL	4,5

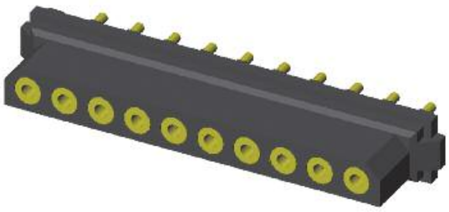
nn = number of LF contacts

Calculation :

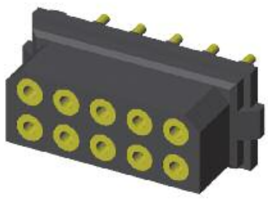
CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 5	**B** = A + 5

Refer to dimension table on cover page





nn min = 02 nn max = 25



nn min = 04 nn max = 50

90° PCB

Part numbering :

“1” = Series 100
“2” = Series 200

0 2 _ n n

Type :V-VL

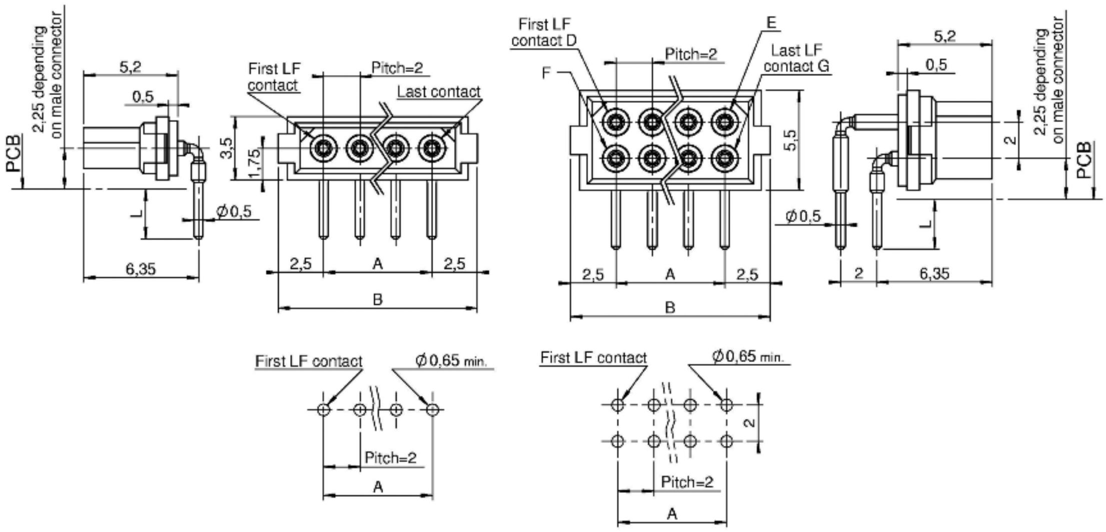
Type	L
V	3
VL	4,5

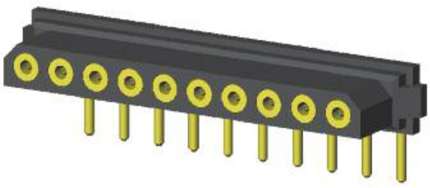
nn = number of LF contacts

Calculation :

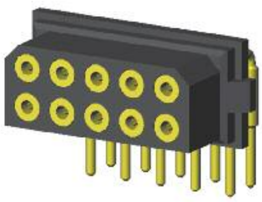
CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 5	**B** = A + 5

Refer to dimension table on cover page





nn min = 02 nn max = 25



nn min = 04 nn max = 50

CMM 100 / 200 female

STRAIGHT SMT

Part numbering :

"1" = Series 100
"2" = Series 200

0 2 _ n n

Type : T-TL

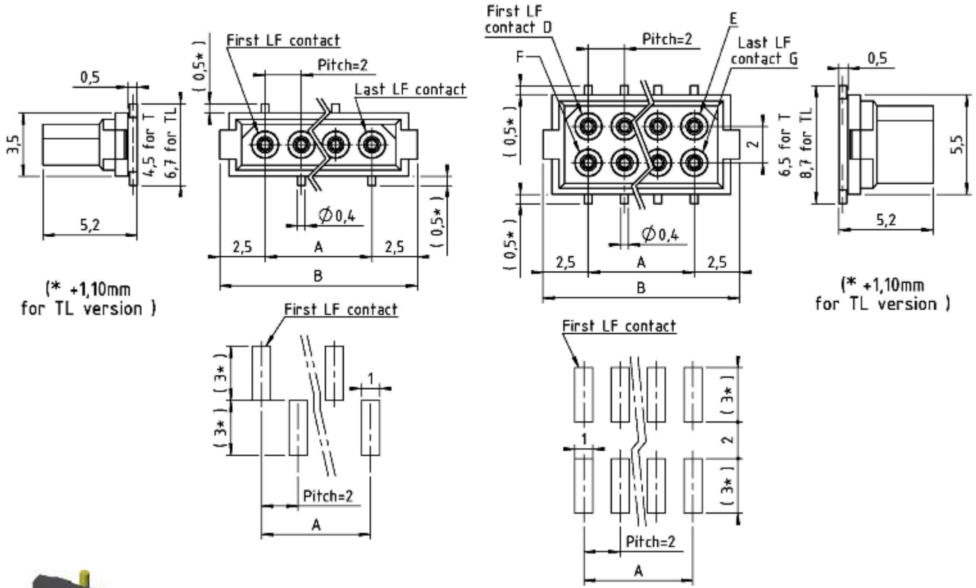
nn = number of LF contacts

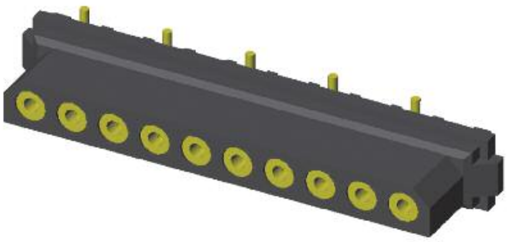
Calculation :

CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 5	**B** = A + 5

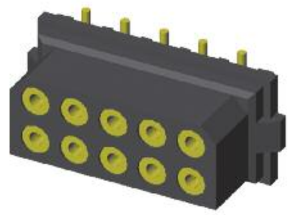
Refer to dimension table on cover page

Optional: Packaging in reel available upon request





nn min = 02 nn max = 25



nn min = 04 nn max = 50

CRIMP

Part numbering :

"1" = Series100
"2" = Series 200

0 2 _ n n

Type : S-C

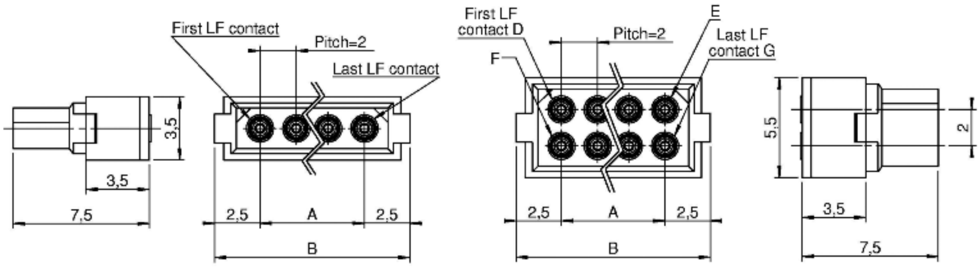
nn = number of LF contacts

Type	Gauge
S	24-28
C	22

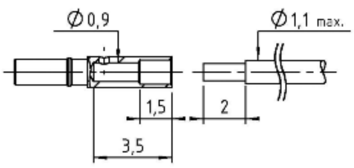
Calculation :

CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 5	**B** = A + 5

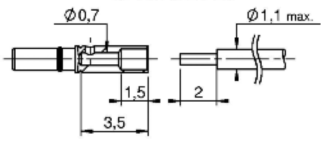
Refer to dimension table on cover page

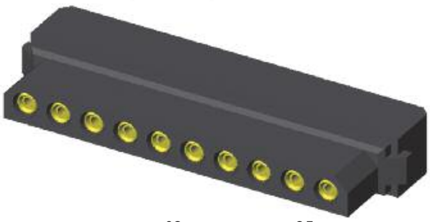


Ref : C13064-P
Female crimp contact "C"
for AWG 22 cable



Ref : C12468
Female crimp contact "S"
for AWG 24-28





nn min = 02 nn max = 25

nn min = 04 nn max = 50

CMM 100 / 200 female

STRAIGHT PRESS FIT

Part numbering :

"1" = Series 100
"2" = Series 200

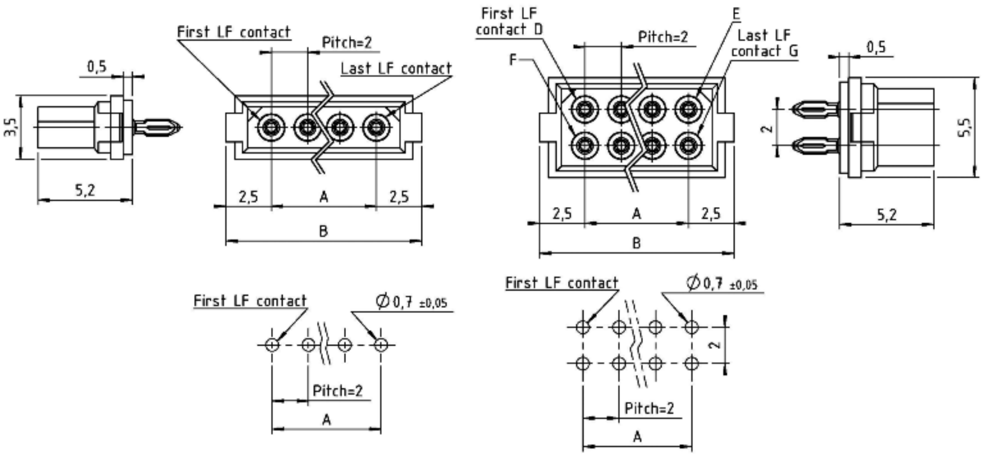
0 2 PF n n

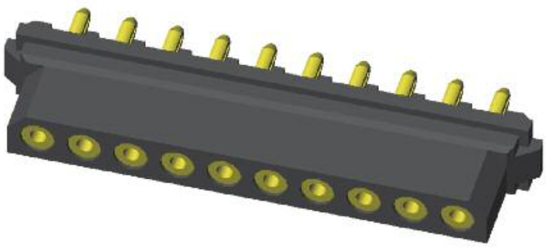
nn = number of LF contacts

Calculation :

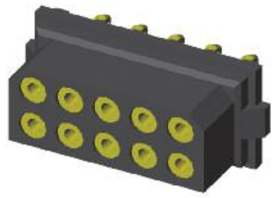
CMM 100	CMM 200
A = (nn x 2) - 2	**A** = nn - 2
B = A + 5	**B** = A + 5

Refer to dimension table on cover page





nn min = 02 nn max = 25



nn min = 04 nn max = 50

90° SMT

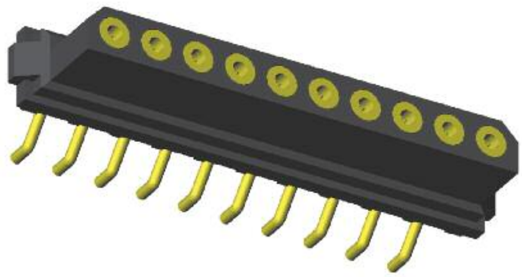
Part numbering :

"1" = Series 100
"2" = Series 200

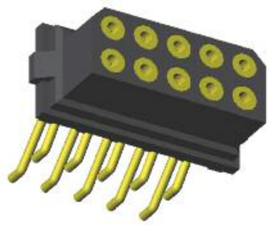
0 2 R n n

nn = number of LF contacts

Optional: Packaging in reel available upon request



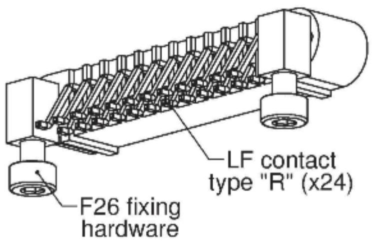
nn min = 02 nn max = 25

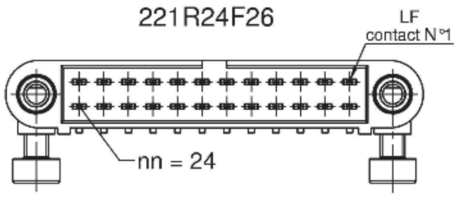


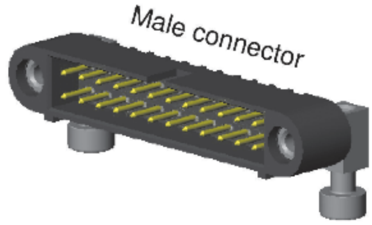
nn min = 04 nn max = 50

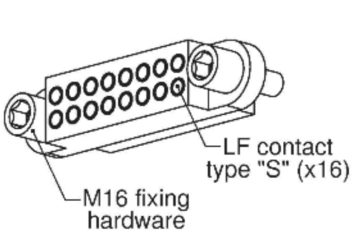
Upon request only

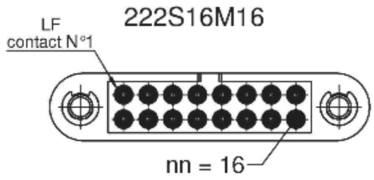
CMM 220 with LF contacts

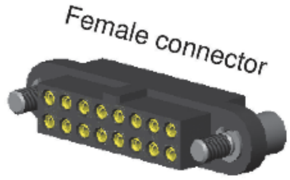










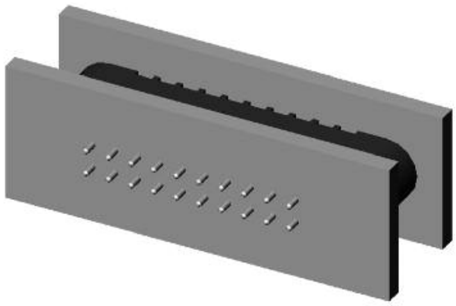


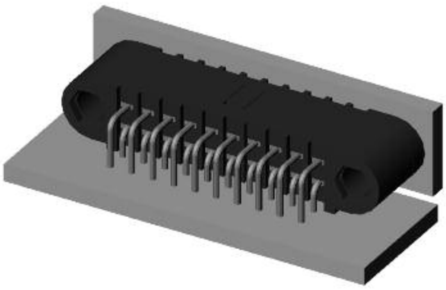
PART NUMBERING REMINDER

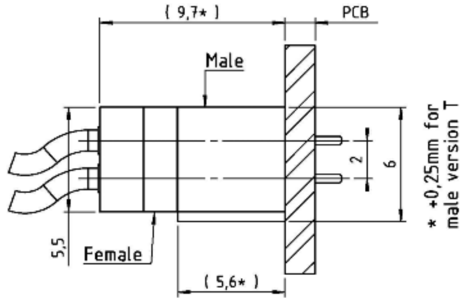
	Code with Low Frequency contacts only				
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware
				n n	
2 rows	22	**1** male **2** female	Refer to table on page 7	04 to 60	Refer to pages 43 to 46

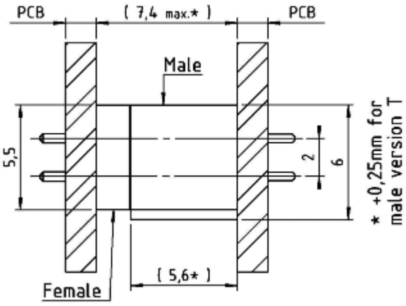
CMM 220
Configuration

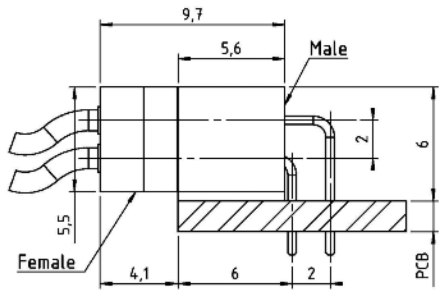
CONNECTOR SPACING

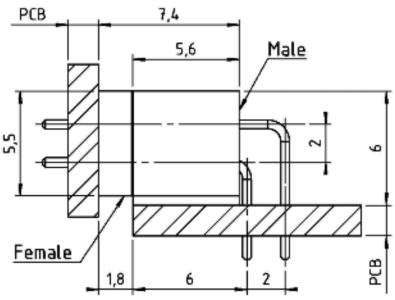








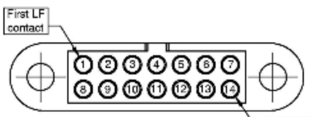




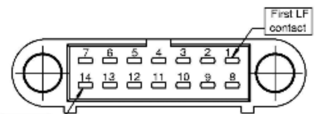
CONTACTS POSITIONS

Female connectors
(shown looking onto mating face)

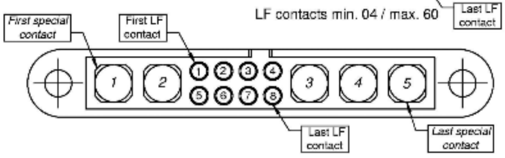
Male connectors
(shown looking onto mating face)



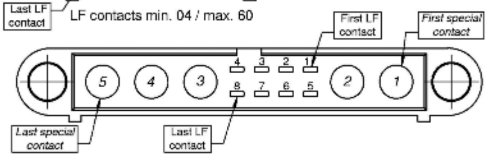
LF contacts min. 04 / max. 60



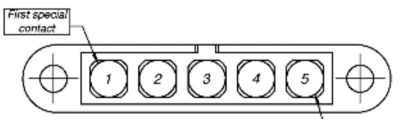
LF contacts min. 04 / max. 60



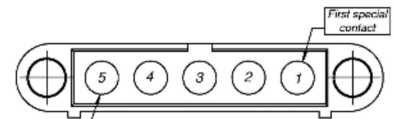
Mixed layout max. configuration depends on the total LF contacts number



Mixed layout max. configuration depends on the total LF contacts number



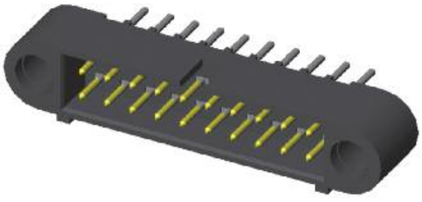
Special contacts min. 02 / max. 15



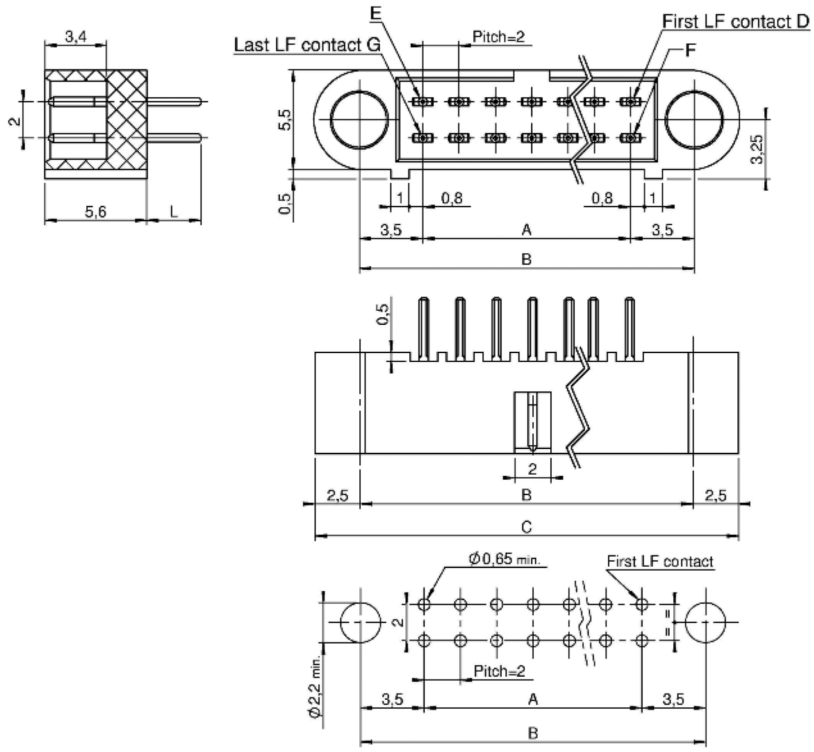
Special contacts min. 02 / max. 15

CMM 220 male

STRAIGHT PCB



nn min = 04   nn max = 60



Part numbering :

Type :Y-YL

2 2 1 _ n n _

See Fixing on page 43, 44
"Fxx" without fixing

nn = number of LF contacts

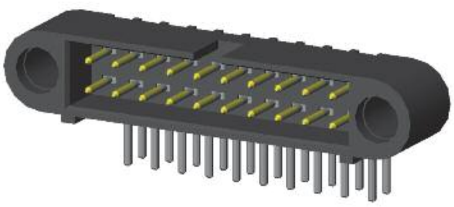
Type	L
Y	3
YL	4,5

Calculation :

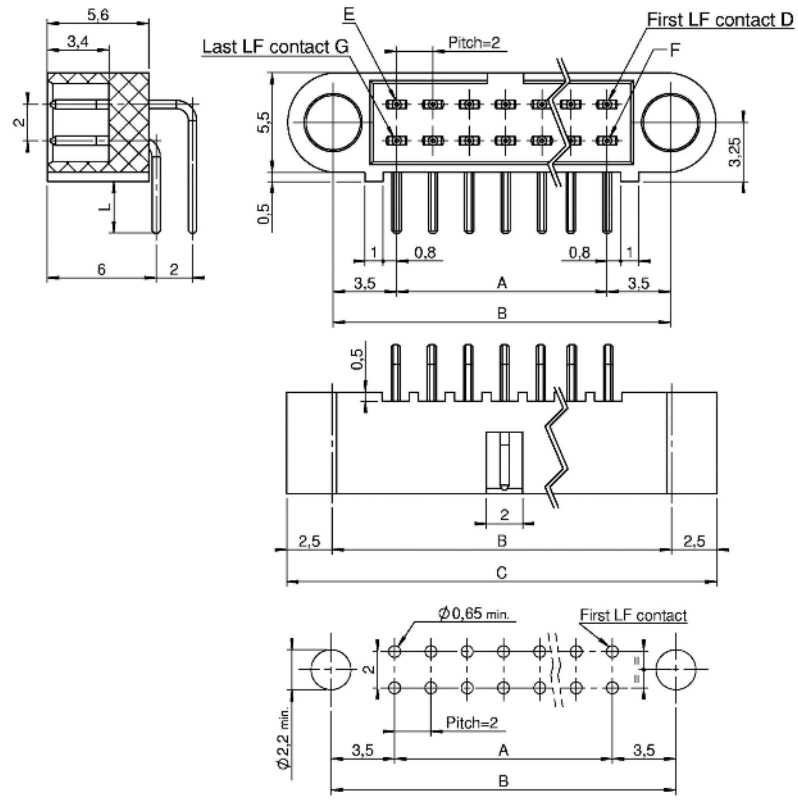
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

90° PCB



nn min = 04   nn max = 60



Part numbering :

Type :V-VL

2 2 1 _ n n _

See Fixing on page 43, 44
"Fxx" without fixing

nn = number of LF contacts

Type	L
V	3
VL	4,5

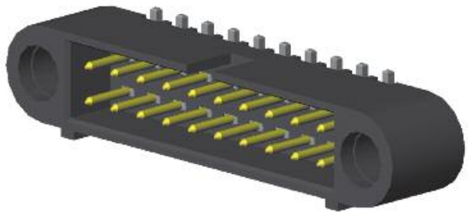
Calculation :

A = nn - 2
B = A + 7
C = A + 12

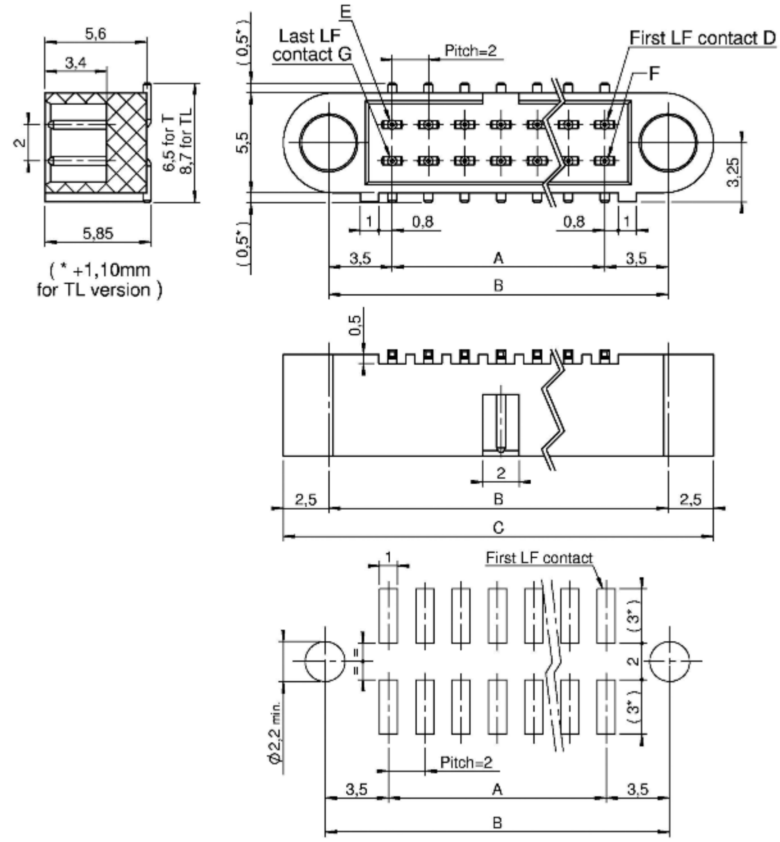
Refer to dimension table on cover page

CMM 220 male

STRAIGHT SMT



nn min = 04   nn max = 60



Part numbering :

Type : T-TL

2 2 1 _ n n _

See Fixing on page 43, 44
"Fxx" without fixing

nn = number of LF contacts

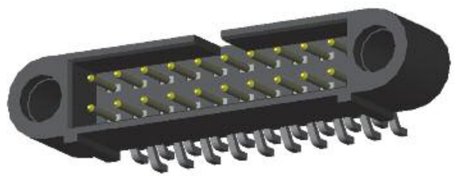
Optional: Packaging in reel available upon request

Calculation :

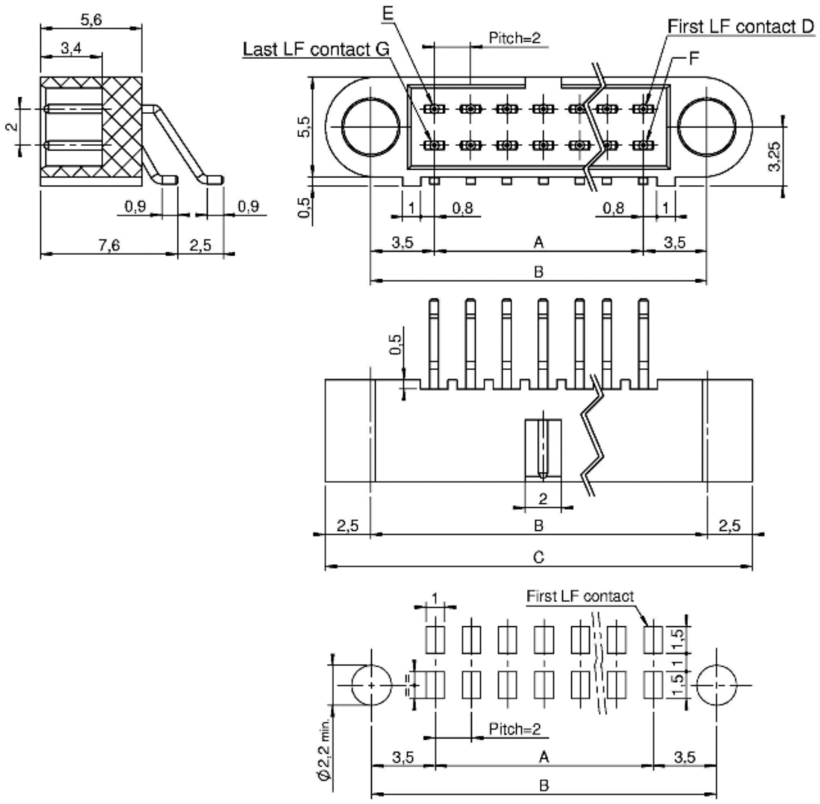
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

90° SMT



nn min = 04   nn max = 60



Part numbering :

2 2 1 R n n _

See Fixing on page 43, 44
"Fxx" without fixing

nn = number of LF contacts

Optional: Packaging in reel available upon request

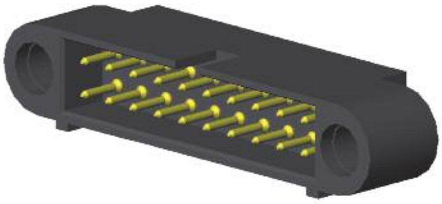
Calculation :

A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

CMM 220 male

CRIMP



nn min = 04   nn max = 60

Part numbering :

2	2	1		n	n	

Type : S-C

See Fixing on page 43, 44
"Fxx" without fixing

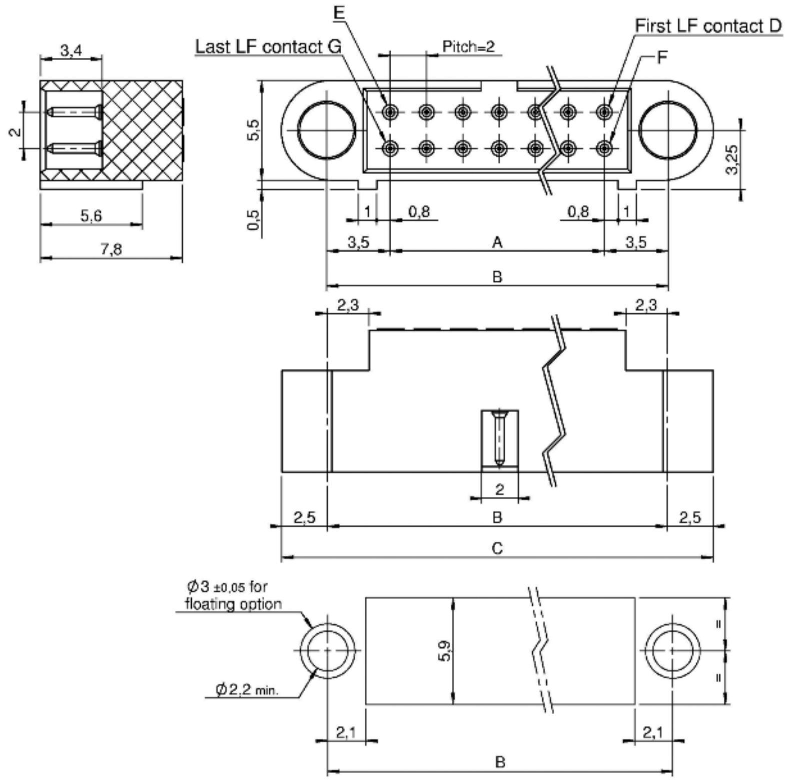
nn = number of LF contacts

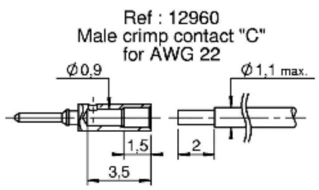
Type	Gauge
S	24-28
C	22

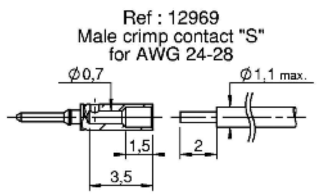
Calculation :

A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

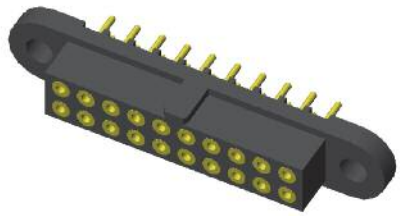




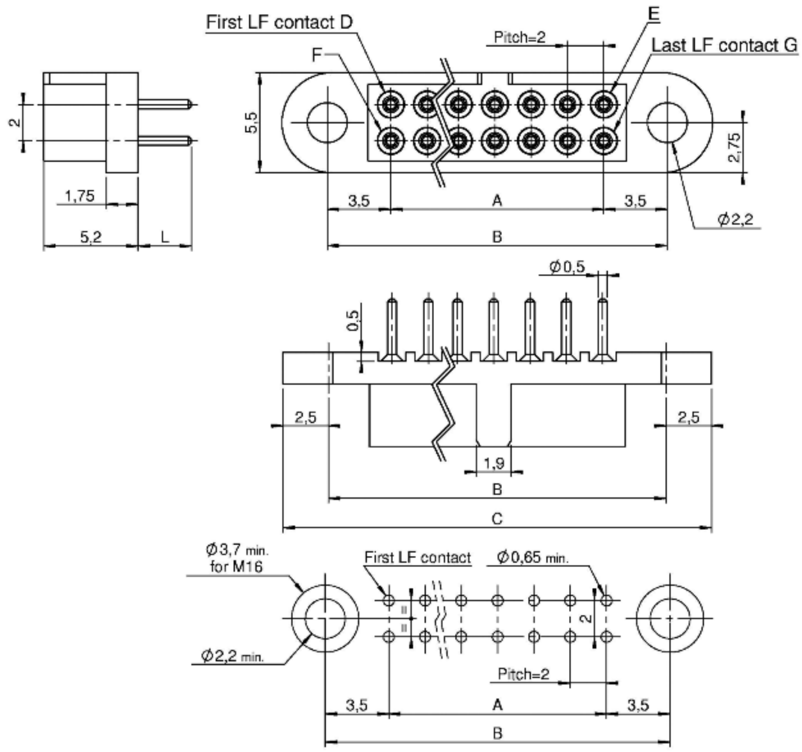


CMM 220 female

STRAIGHT PCB



nn min = 04 nn max = 60



Part numbering :

Type :Y-YL

2 2 2 [ ] n n [ ]

See Fixing on page 45-46
"Mxx" without fixing

nn = number of LF contacts

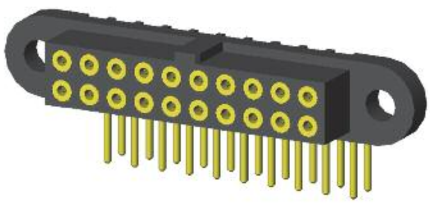
Type	L
Y	3
YL	4,5

Calculation :

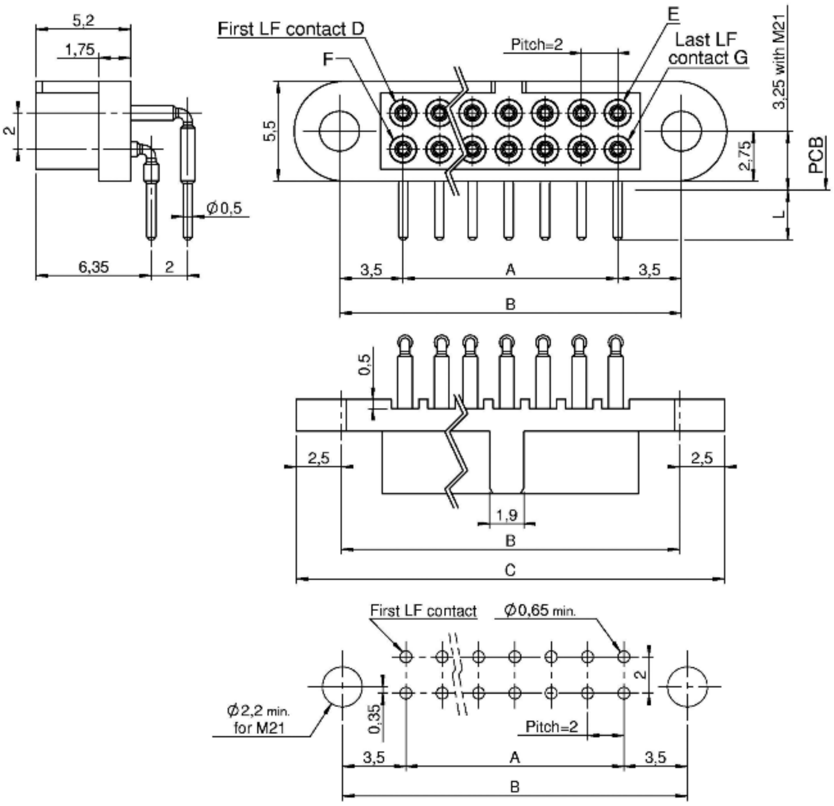
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

90° PCB



nn min = 04 nn max = 60



Part numbering :

Type :V-VL

2 2 2 [ ] n n [ ]

See Fixing on page 45
"Mxx" without fixing

nn = number of LF contacts

Type	L
V	3
VL	4,5

Calculation :

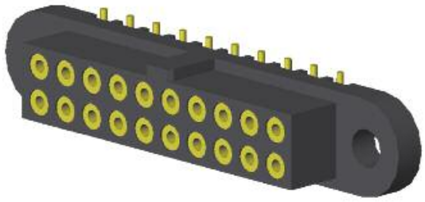
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

四 006-0ZZ-002

CMM 220 female

STRAIGHT SMT



nn min = 04 nn max = 60

Part numbering :

Type : T-TL

2 2 2 _ n n _

See Fixing on page 45-46
"Mxx" without fixing

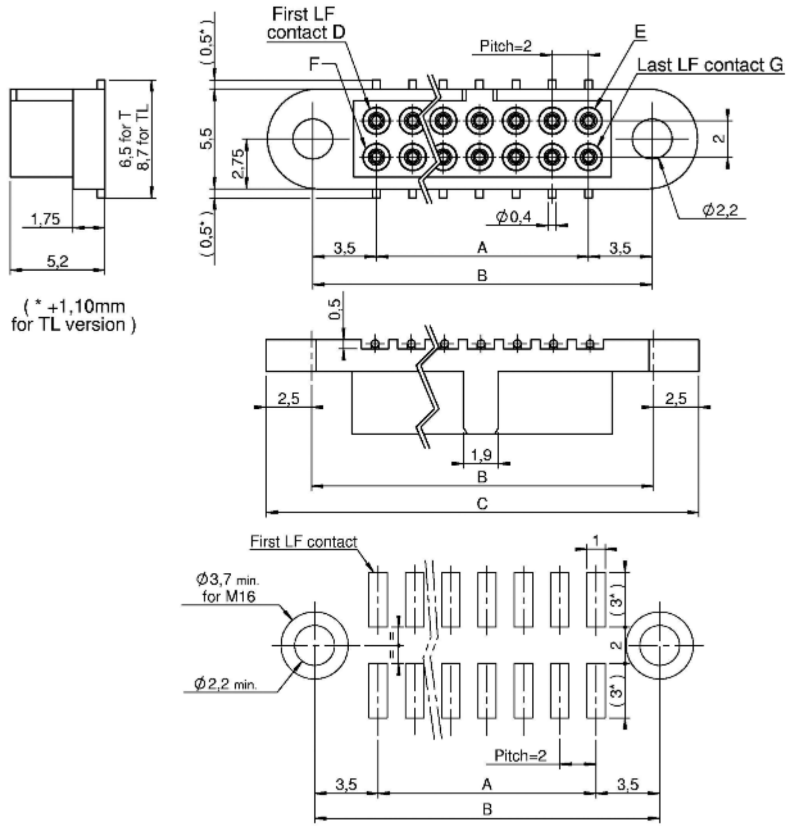
nn = number of LF contacts

Optional: Packaging in reel available upon request

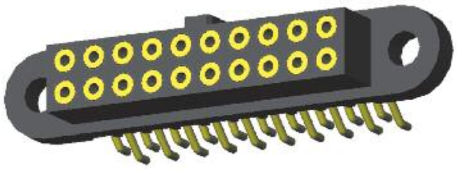
Calculation :

A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page



90° SMT



nn min = 04 nn max = 60

Part numbering :

2 2 2 R n n _

See Fixing on page 45
"Mxx" without fixing

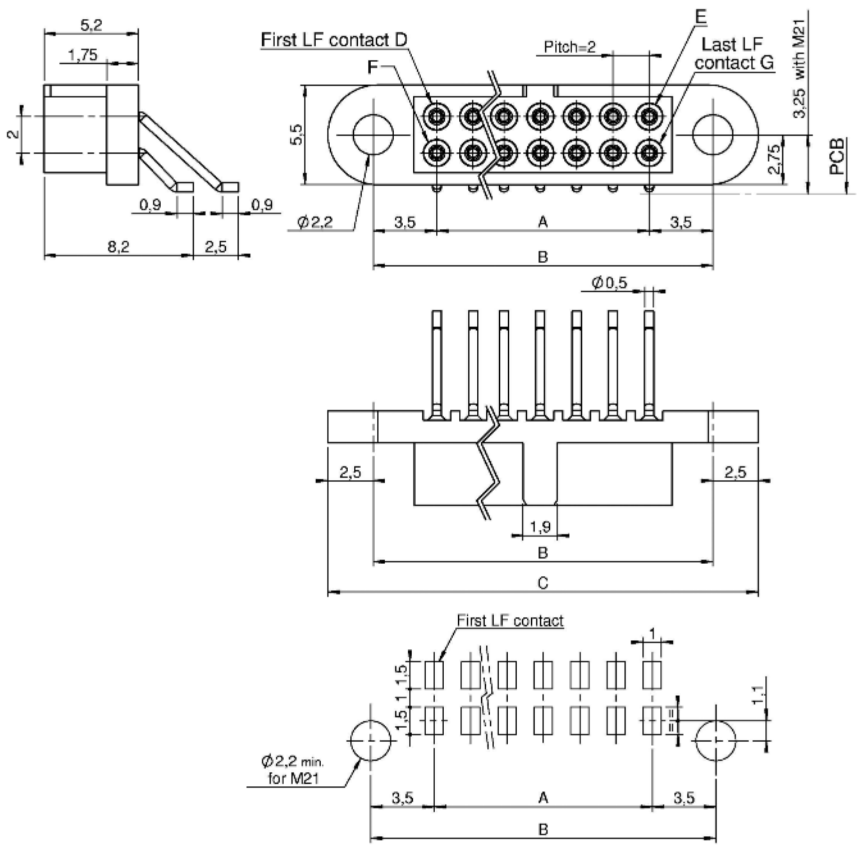
nn = number of LF contacts

Optional: Packaging in reel available upon request

Calculation :

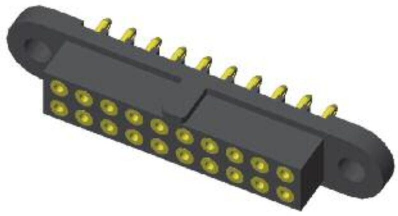
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

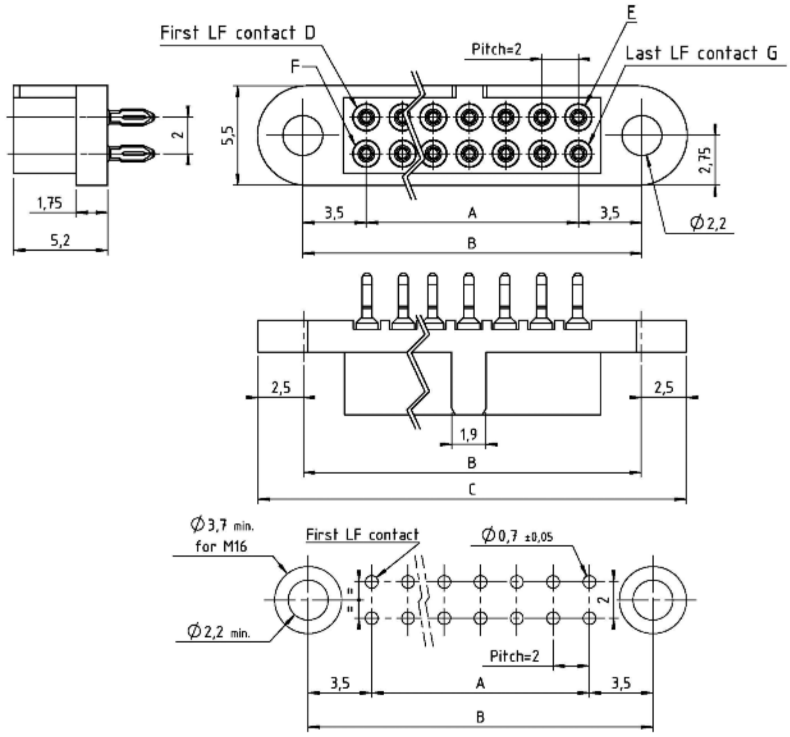


CMM 220 female

STRAIGHT PRESS FIT



nn min = 04 nn max = 60



Part numbering :

2 2 2 PF n n [ ]

See Fixing on page 45-46
"Mxx" without fixing

nn = number of LF contacts

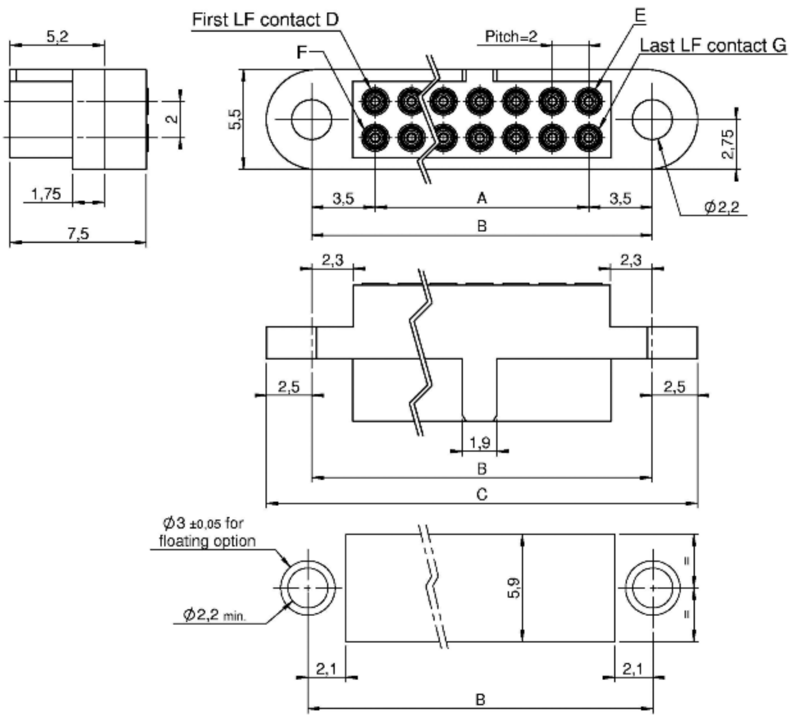
Calculation :

A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

CRIMP

nn min = 04 nn max = 60



Part numbering :

Type : S-C

2 2 2 [ ] n n [ ]

See Fixing on page 45-46
"Mxx" without fixing

nn = number of LF contacts

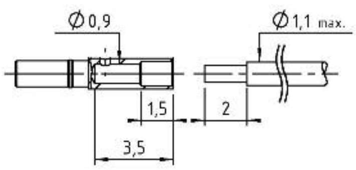
Type	Gauge
S	24-28
C	22

Calculation :

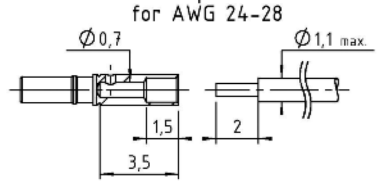
A = nn - 2
B = A + 7
C = A + 12

Refer to dimension table on cover page

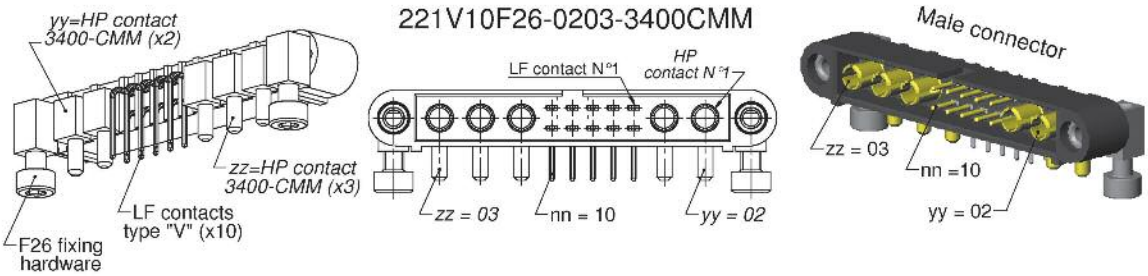
Ref : C13064-P
Female crimp contact "C"
for AWG 22 cable

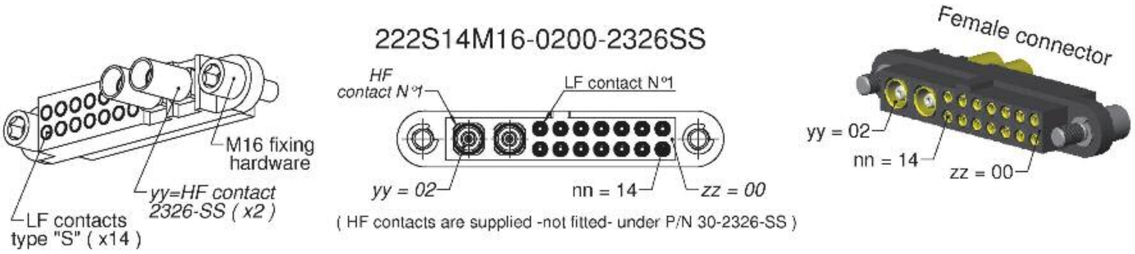


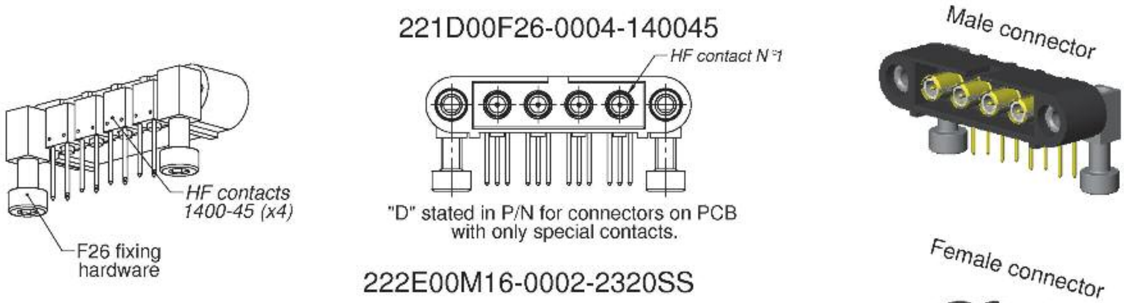
Ref : C12468
Female crimp contact "S"
for AWG 24-28

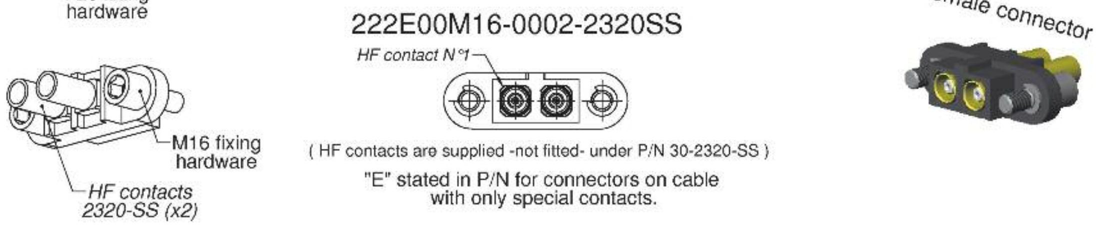


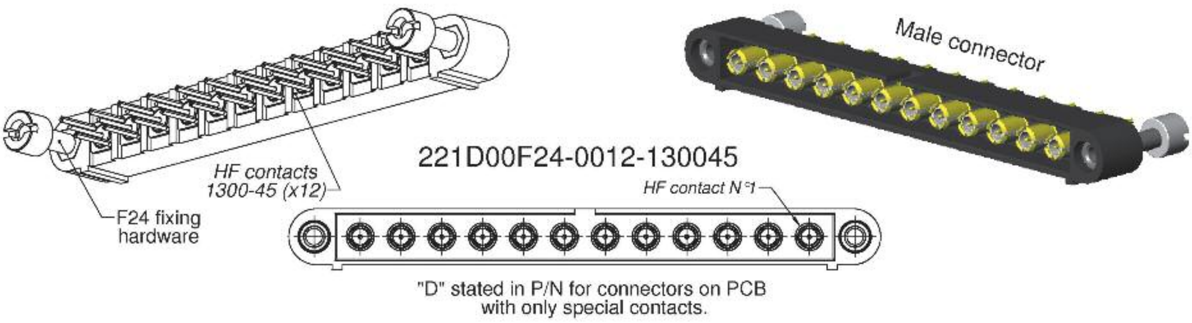
CMM 220 mixed-layout









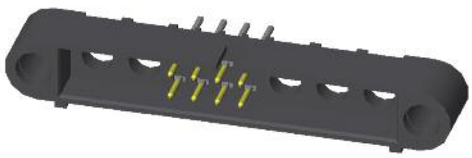


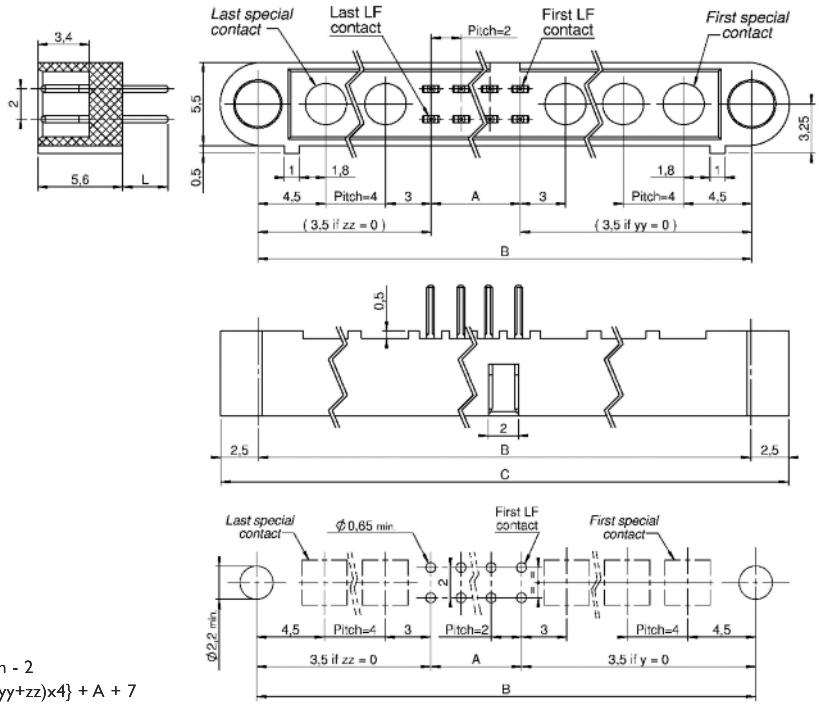
PART NUMBERING REMINDER

	Code with Low Frequency contacts only					Additional code for mixed-layout connector (HF/HP)		
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware	Number of HF/HP contacts pin 1 side (LF contact number 1)	Number of HF/HP contacts opposite to LF contact number 1	HF/HP Contact Type
	■ ■	■	■	n n	■ –	y y	z z –	■■■■ ■■■
2 rows	22	1 male 2 female	Refer to table on page 7	04 to 60	Refer to pages 43 to 46	Depends upon the number of LF contacts If use with shifted central key, please refer to page 42 HF / HP : 15 contacts max. Type of HF/HP contact : please refer to pages 8-9		HP/HF 30 please refer to pages 75 to 94

CMM 220
Male mixed-layout

STRAIGHT PCB





Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

2 2 1 _ n n _ _ - y y z z - _ _ _ _ _ _ _ _

Type :Y-YL

See Fixing on page 43, 44 "Fxx" without fixing

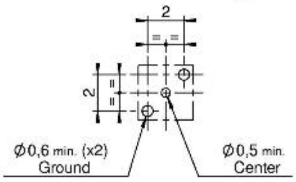
HF or HP P/N refer to page 75

nn = number of LF contacts

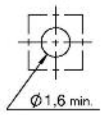
Type	L
Y	3
YL	4,5

Pattern for special contact :

HF 30-1300-xx PCB lay-out

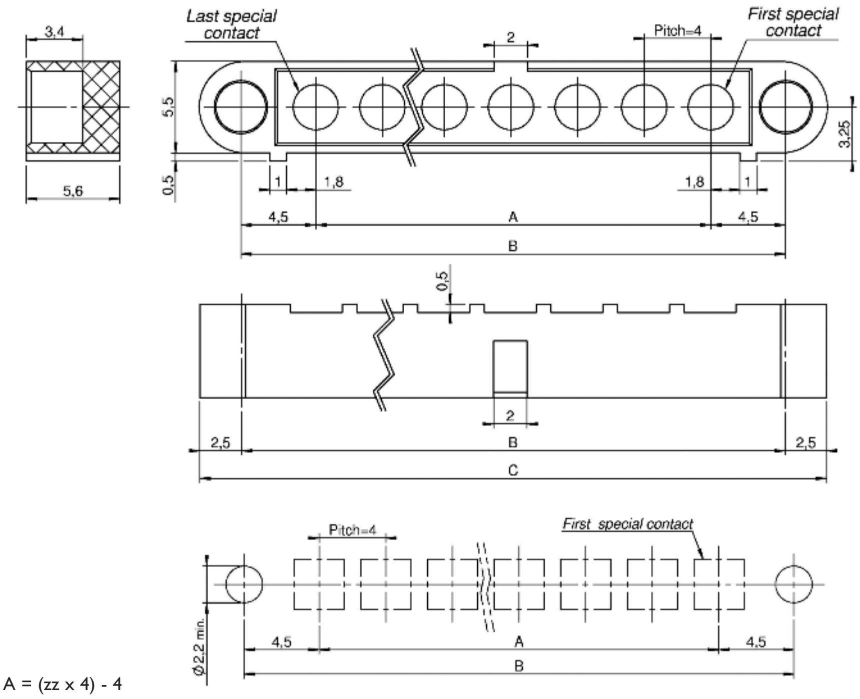


HP 30-3300-xx PCB lay-out



A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

STRAIGHT PCB FOR HP/HF CONTACTS ONLY



Part numbering :

Number of HF or HP contacts

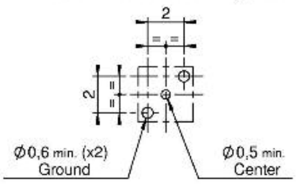
2 2 1 D 0 0 _ _ - 0 0 z z - _ _ _ _ _ _ _ _

See Fixing on page 43, 44 "Fxx" without fixing

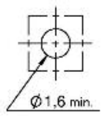
HF or HP P/N refer to page 75

Pattern for special contact :

HF 30-1300-xx PCB lay-out



HP 30-3300-xx PCB lay-out



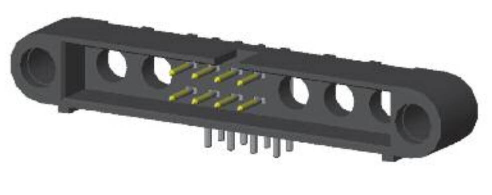
A = (zz x 4) - 4
B = A + 9
C = B + 5

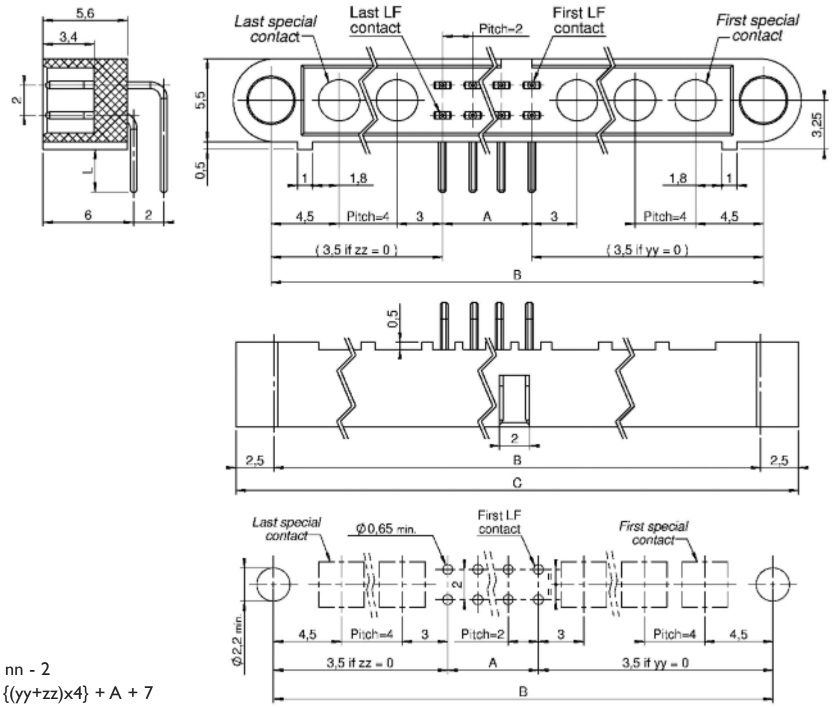
Special contacts min. : 02
max. : 15

Refer to dimension table on cover page

CMM 220
Male mixed-layout

90° PCB





Part numbering :

221 nn ___ - yy zz - ______

- Number of contacts LF pin 1 side
- Number of contacts opposite side LF pin 1
- Type : V-VL
- See Fixing on page 43, 44 "Fxx" without fixing
- HF or HP P/N refer to page 75

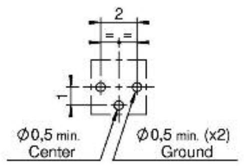
nn = number of LF contacts

Type	L
V	3
VL	4,5

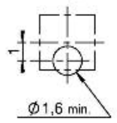
A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

Pattern for special contact :

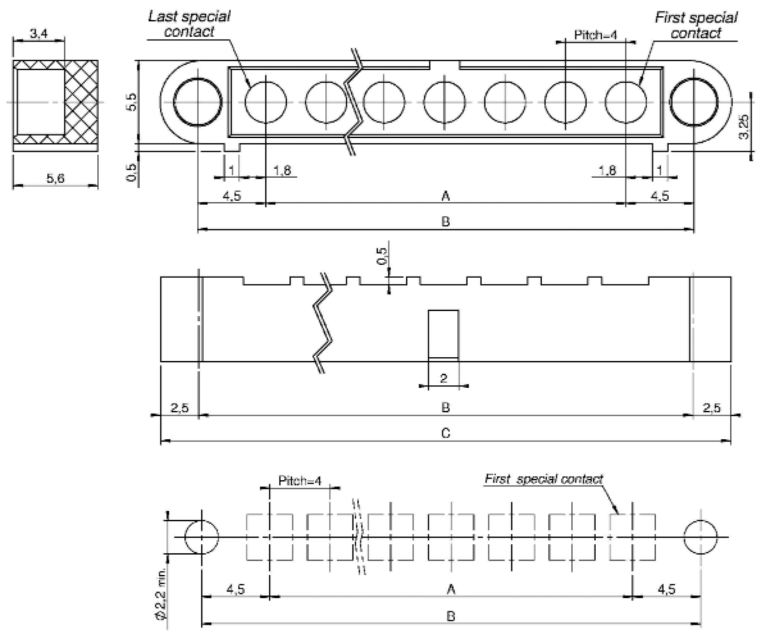
HF 30-1400-xx PCB lay-out



HP 30-3400-xx PCB lay-out



90° PCB FOR HP/HF CONTACTS ONLY



Part numbering :

221D00 ___ - 00 zz - ______

- Number of HF or HP contacts
- See Fixing on page 43, 44 "Fxx" without fixing
- HF or HP P/N refer to page 75

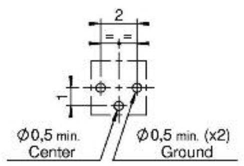
A = (zz x 4) - 4
B = A + 9
C = B + 5

Special contacts min. : 02
max. : 15

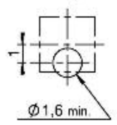
Refer to sizes information table on cover page

Pattern for special contact :

HF 30-1400-xx PCB lay-out

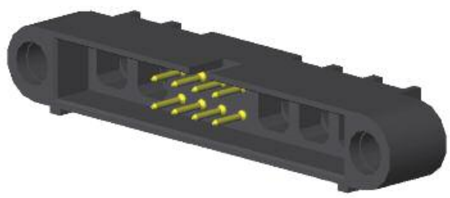


HP 30-3400-xx PCB lay-out



CMM 220
Male mixed-layout

CRIMP



Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

2 2 1 n n - y y z z -

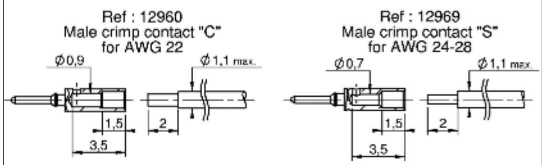
Type : S-C

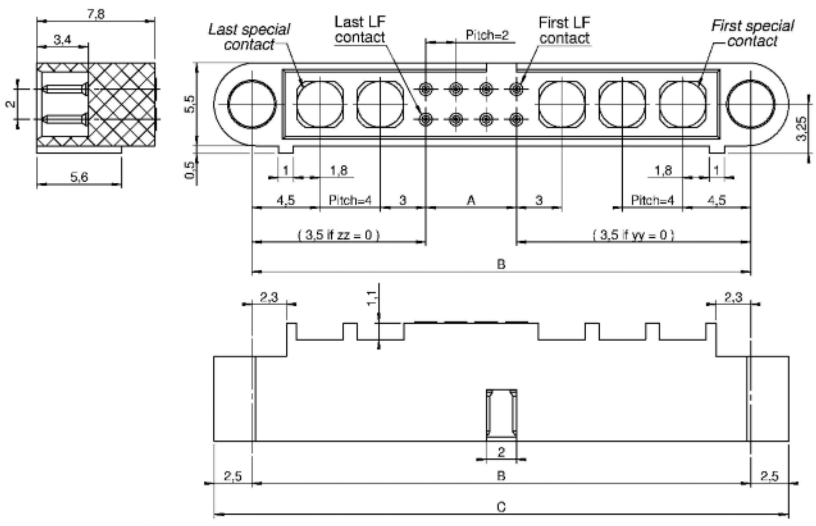
See Fixing on page 43, 44 "Fxx" without fixing

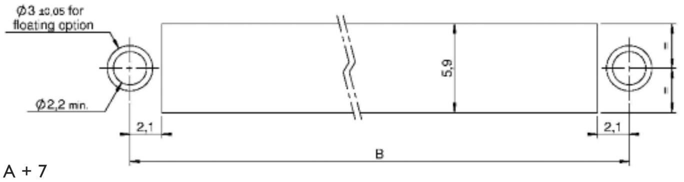
HF or HP P/N refer to page 75

nn = number of LF contacts

Type	Gauge
S	24-28
C	22

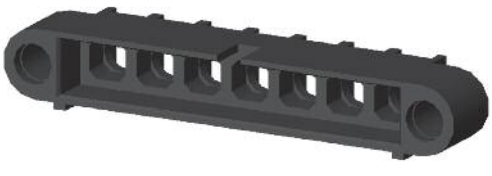






A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

CRIMP FOR HP/HF CONTACTS ONLY



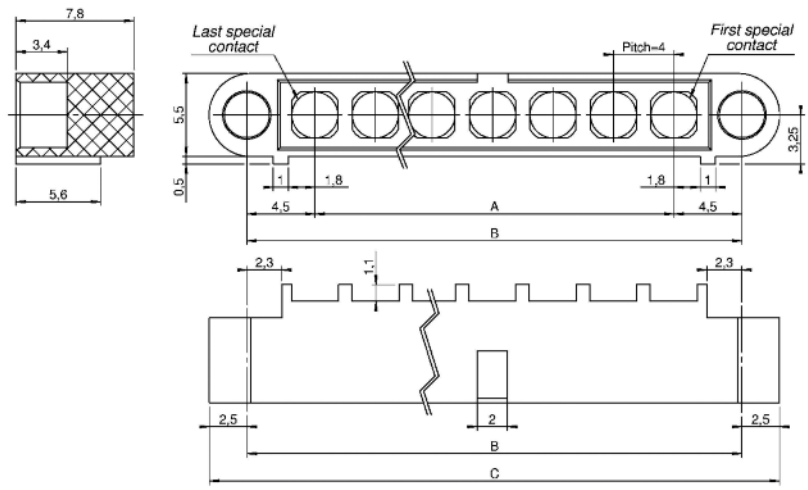
Part numbering :

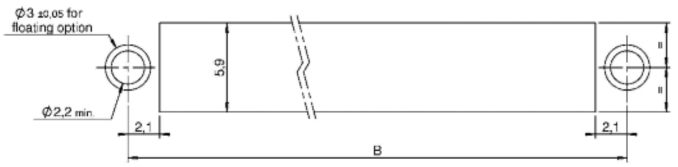
Number of HF or HP contacts

2 2 1 E 0 0 - 0 0 z z -

See Fixing on page 43, 44 "Fxx" without fixing

HF or HP P/N refer to page 75





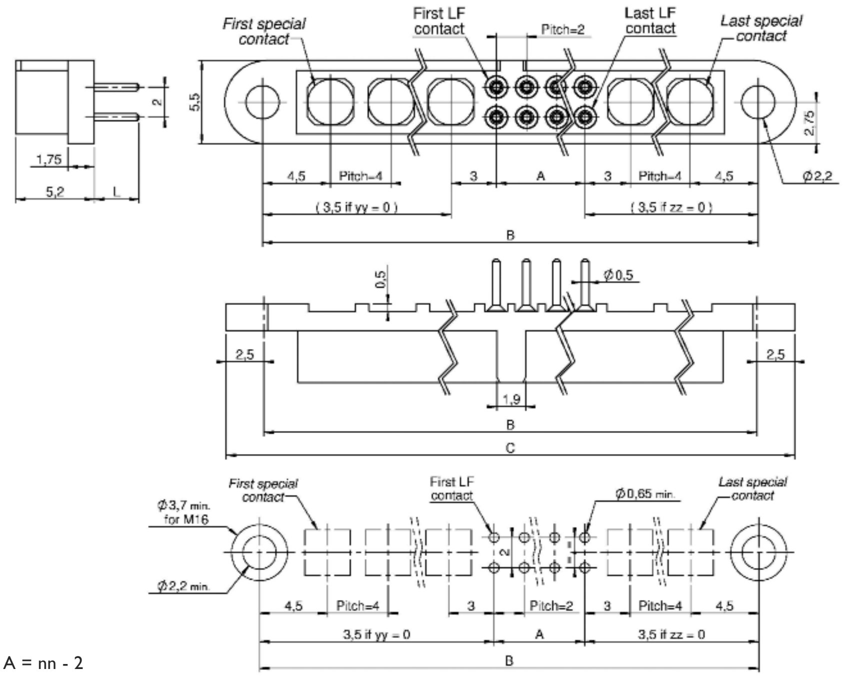
A = (zz x 4) - 4
B = A + 9
C = B + 5

Special contacts min. : 02
max. : 15

Refer to dimension table on cover page

CMM 220
Female mixed-layout

STRAIGHT PCB



Part numbering :

Number of contacts LF pin 1 side | Number of contacts opposite side LF pin 1

2 2 2 n n ▭ - y y z z - ▭ ▭ ▭ ▭ ▭ ▭ ▭

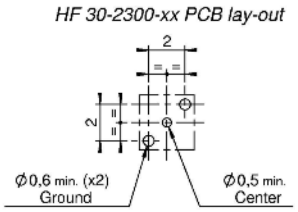
Type : Y-YL | See Fixing on page 45 "Mxx" without fixing | HF or HP P/N refer to page 75

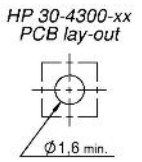
nn = number of LF contacts

Type	L
Y	3
YL	4,5

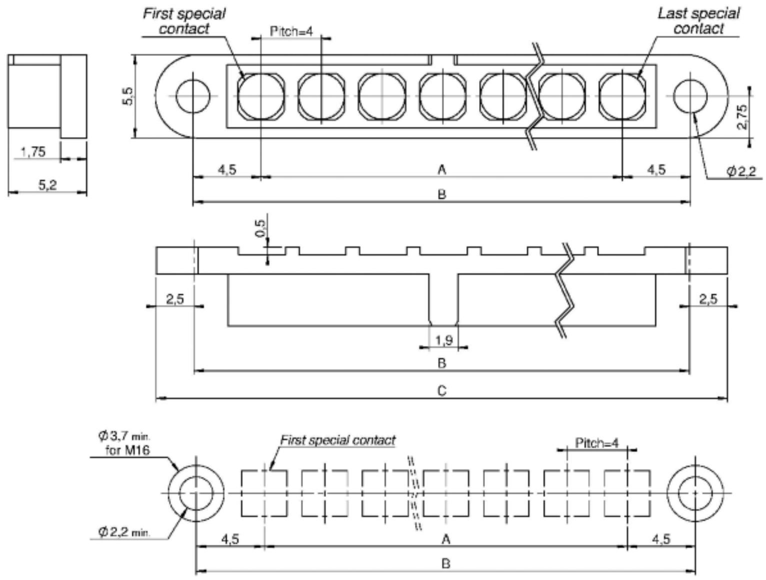
A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

Pattern for special contact :





STRAIGHT PCB FOR HP/HF CONTACTS ONLY



Part numbering :

Number of HF or HP contacts

2 2 2 D 0 0 ▭ - 0 0 z z - ▭ ▭ ▭ ▭ ▭ ▭ ▭

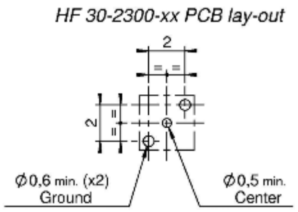
See Fixing on page 45 "Mxx" without fixing | HF or HP P/N refer to page 75

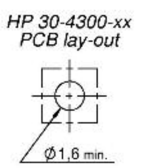
Special contacts min. : 02
max. : 15

A = (zz x 4) - 4
B = A + 9
C = B + 5

Refer to dimension table on cover page

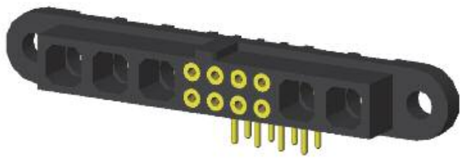
Pattern for special contact :

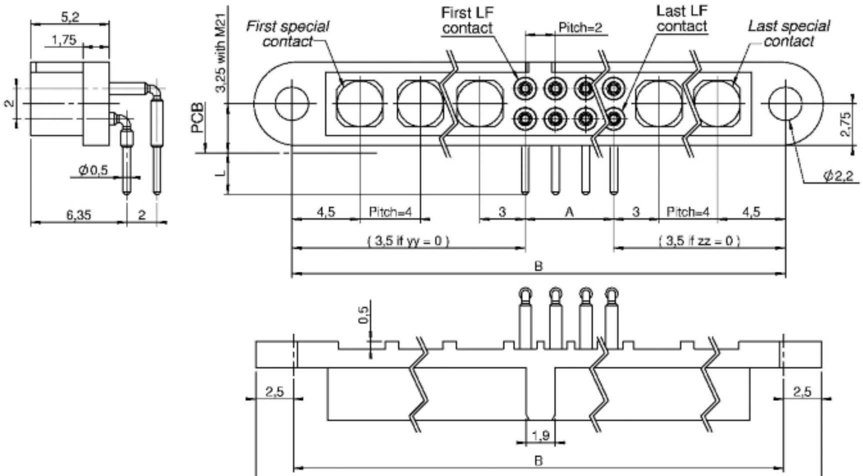




CMM 220
Female mixed-layout

90° PCB





Part numbering :

Number of contacts LF pin I side

Number of contacts opposite side LF pin I

2 2 2 _ n n _ - y y z z - _ _ _ _ _ _ _

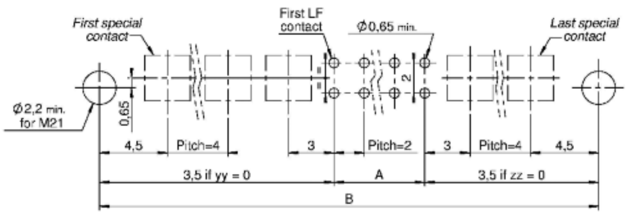
Type : V-VL

See Fixing on page 45 "Mxx" without fixing

HF or HP P/N refer to page 75

nn = number of LF contacts

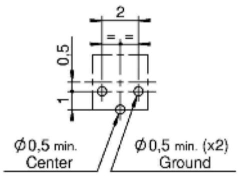
Type	L
V	3
VL	4,5



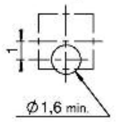
A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

Pattern for special contact :

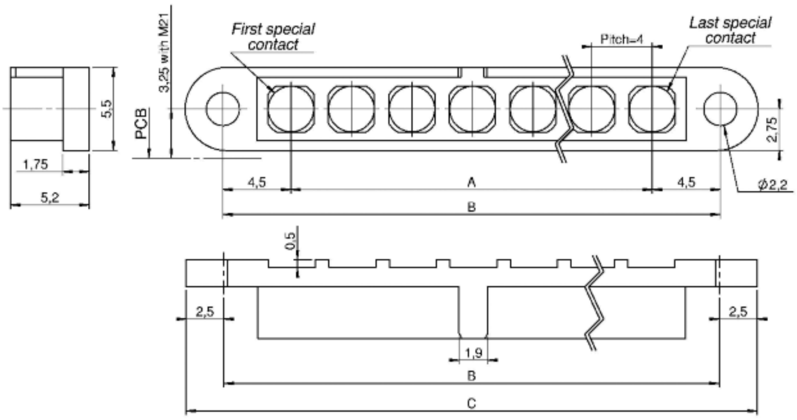
HF 30-2400-xx PCB lay-out



HP 30-4400-xx PCB lay-out



90° PCB FOR HP/HF CONTACTS ONLY



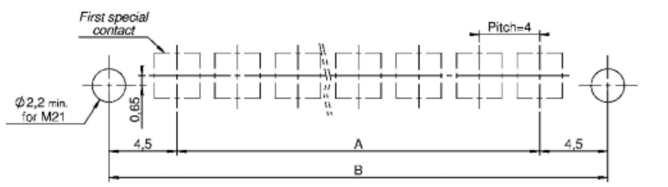
Part numbering :

Number of HF or HP contacts

2 2 2 D 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on page 45 "Mxx" without fixing

HF or HP P/N refer to page 75



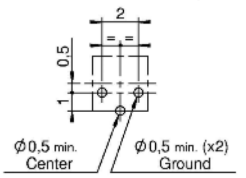
Special contacts min. : 02
max. : 15

A = (zz x 4) - 4
B = A + 9
C = B + 5

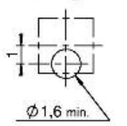
Refer to dimension table on cover page

Pattern for special contact :

HF 30-2400-xx PCB lay-out

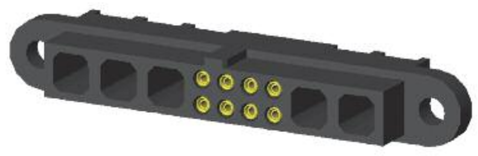


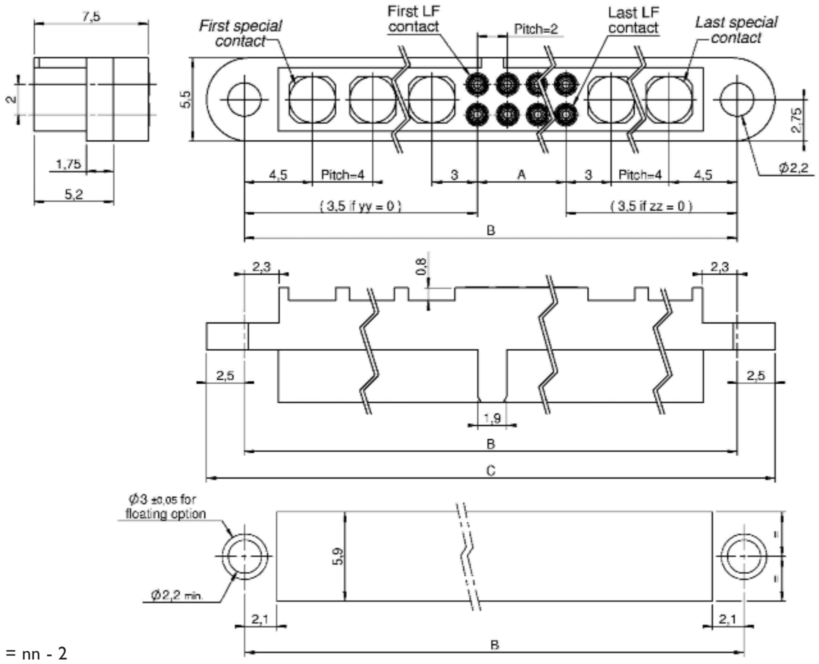
HP 30-4400-xx PCB lay-out



CMM 220
Female mixed-layout

CRIMP





Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

2 2 2 _ n n _ _ _ - y y z z - _ _ _ _ _ _ _

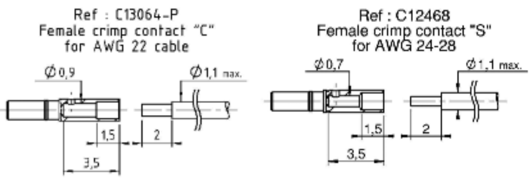
Type : S-C

See Fixing on page 45 "Mxx" without fixing

HF or HP P/N refer to page 75

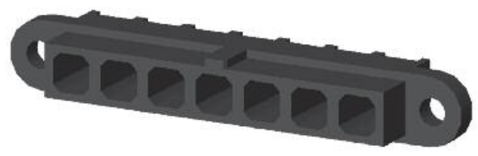
nn = number of LF contacts

Type	Gauge
S	24-28
C	22



A = nn - 2
B = {(yy+zz)x4} + A + 7
Bmax. = 65 mm
C = B + 5

CRIMP FOR HP/HF CONTACTS ONLY



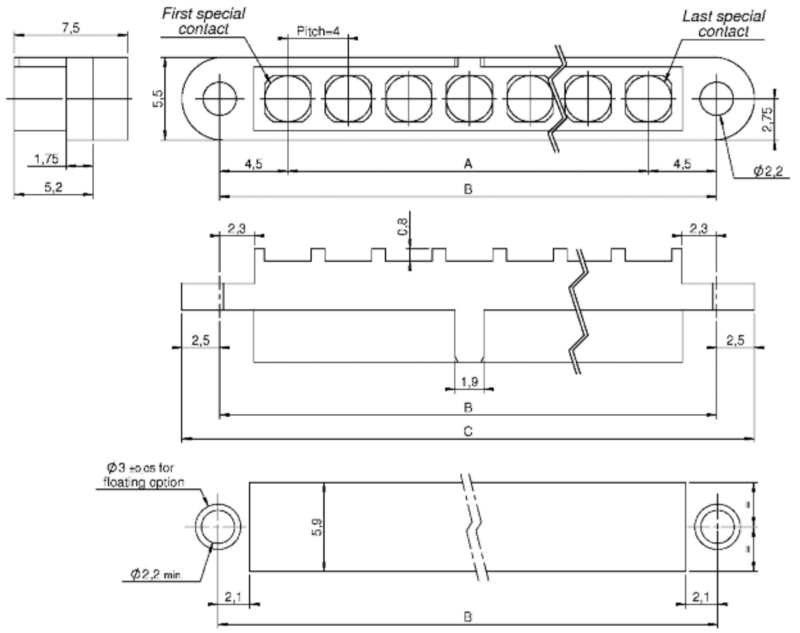
Part numbering :

Number of HF or HP contacts

2 2 2 E 0 0 _ _ _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on page 45 "Mxx" without fixing

HF or HP P/N refer to page 75



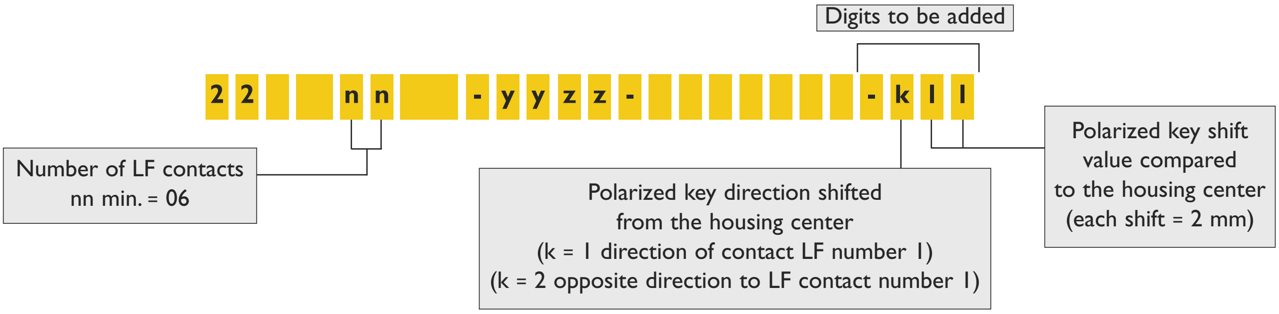
A = (zz x 4) - 4
B = A + 9
C = B + 5

Special contacts min. : 02
max. : 15

Refer to dimension table on cover page

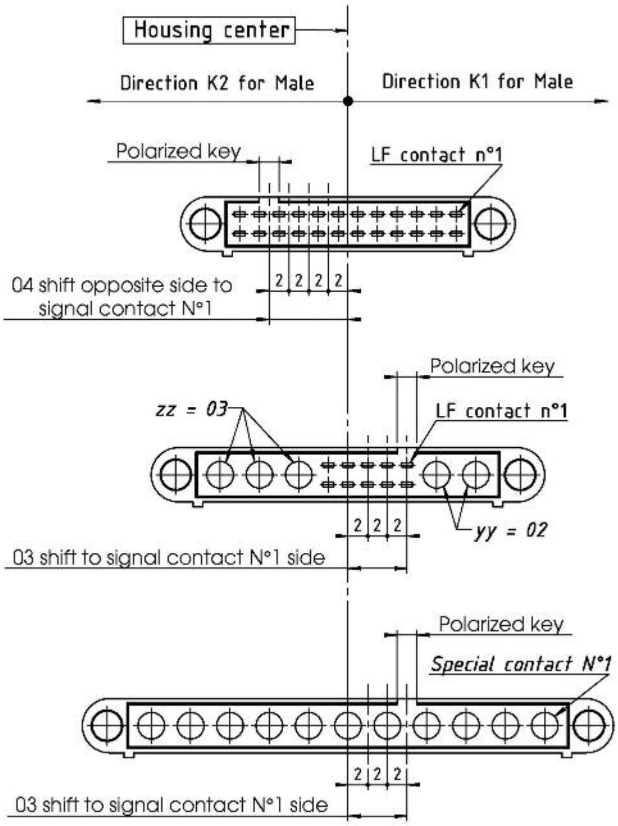
Part numbering with shifted polarization key position

PART NUMBERING



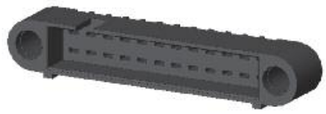
EXPLANATION

Shown looking onto mating face (Example with Male housing)



CMM220 with LF contacts only with shifted polarized key.

Example : 2 2 1   2 4 Fxx - 2 0 4



CMM220 with LF contacts and Special contacts with shifted polarized key.

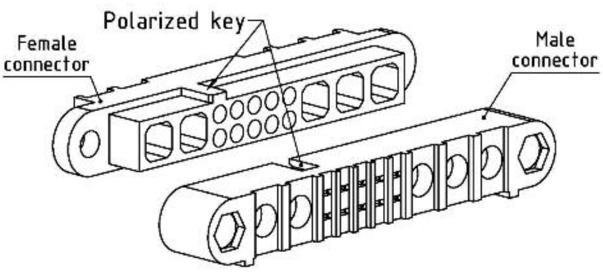
Example : 2 2 1   1 0 Fxx - 0 2 0 3 - - 1 0 3

CMM220 with Special contacts only with shifted polarized key.

Example : 2 2 1   0 0 Fxx - 0 0 1 1 - - 1 0 3

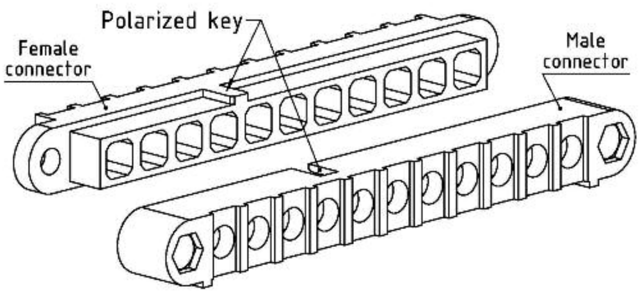
EXAMPLES

Connectors Male & Female CMM series 220
LF and special contacts mixed



Male : 2 2 1   1 0 Fxx - 0 2 0 3 - - 1 0 3
Female : 2 2 2   1 0 Mxx - 0 2 0 3 - - 1 0 3

Connectors Male & Female CMM series 220
special contacts only



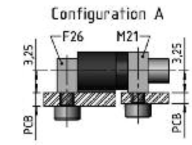
Male : 2 2 1   0 0 Fxx - 0 0 1 1 - - 1 0 3
Female : 2 2 2   0 0 Mxx - 0 0 1 1 - - 1 0 3

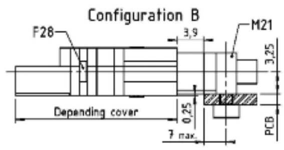
Fixing hardware interconnection table for CMM 220

Male Connectors CMM series 220

Female Connectors CMM Series 220	Housing assembly	Type of PCB mount	PCB thickness (mm)	Fixing	PCB Contacts															Contacts on cable														
Type of contact in connector		Type of PCB mount			Straight			90°						Card edge only HF	Card edge HF & LF	No fixing on PCB			Racking	Straight			90°						Floating	No fixing on PCB			Racking	With cover
			PCB thickness (mm)		0,8 min. 2 max.	1,5 min. 4 max.	6 max.	4 max.		2,5 max.	4,5 max.	1,6 max.	3,2 max.							0,8 min 2 max	1,5 min 4 max	6 max	4 max		2,5 max	4,5 max	1,6 max	3,2 max						
				Fixing	F22 F22H	F24 F24H	F24L	F25	F26 F23	F30 F30H	F31 F31H	F63	F63L	F27	F34	F21	F60	F61	F62 F62H	F22	F24	F24L	F25	F26 F23	F30 F30H	F31 F31H	F63	F63L	F2xx	F21	F60	F61	F62	F28
PCB Contacts	Smooth	Straight	0,8 min. 2 max.	M12	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
PCB Contacts	Smooth	Straight	0,8 min. 2 max.	M12H	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
PCB Contacts	Smooth	Straight	1,5 min. 4 max.	M12L	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
PCB Contacts	Smooth	Straight	1,5 min. 4 max.	M12LH	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
PCB Contacts	Smooth	Straight	1,5 min. 4 max.	M49															OK														OK	
PCB Contacts	Smooth	Straight	1,5 min. 4 max.	M49H															OK														OK	
PCB Contacts	Locked	Straight	1,5 min. 2,5 max.	M46								OK	OK				OK										OK	OK			OK			
PCB Contacts	Locked	Straight	1,5 min. 2,5 max.	M46H								OK	OK				OK										OK	OK			OK			
PCB Contacts	Locked	Straight	1,5 min. 4 max.	M47								OK	OK				OK										OK	OK			OK			
PCB Contacts	Locked	Straight	1,5 min. 4 max.	M47H								OK	OK				OK										OK	OK			OK			
PCB Contacts	Locked	90°	1,6	M21	OK	OK	OK		A	A	A									OK	OK	OK		A	A	A			OK	OK				B
PCB Contacts	Locked	90°	3,2	M21L	OK	OK	OK		A	A	A									OK	OK	OK		A	A	A			OK	OK				B
PCB Contacts	Locked	90°	1,6	M48														OK														OK		
PCB Contacts	Locked	90°	2	M48M														OK														OK		
PCB Contacts	Locked	90°	3,2	M48L														OK														OK		
PCB Contacts	Locked	Without		M16 / M11	OK	OK	OK		OK	OK	OK			OK	OK	OK				OK	OK	OK		OK	OK	OK			OK	OK				OK
Contacts on cable	Smooth	Straight	0,8 min. 2 max.	M12	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
Contacts on cable	Smooth	Straight	1,5 min. 4 max.	M12L	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
Contacts on cable	Smooth	Straight	1,5 min. 4 max.	M49															OK														OK	
Contacts on cable	Smooth	Floating		M1xx	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK			OK	OK	OK	OK	OK	OK	OK	OK			OK	OK			OK	OK
Contacts on cable	Locked	Straight	1,5 min. 2,5 max.	M46								OK	OK				OK										OK	OK			OK			
Contacts on cable	Locked	Straight	1,5 min. 4 max.	M47								OK	OK				OK										OK	OK			OK			
Contacts on cable	Locked	90°	1,6	M21	OK	OK	OK		A	A	A									OK	OK	OK		A	A	A			OK	OK				B
Contacts on cable	Locked	90°	3,2	M21L	OK	OK	OK		A	A	A									OK	OK	OK		A	A	A			OK	OK				B
Contacts on cable	Locked	90°	1,6	M48														OK														OK		
Contacts on cable	Locked	90°	2	M48M														OK														OK		
Contacts on cable	Locked	90°	3,2	M48L														OK														OK		
Contacts on cable	Locked	Without		M16 / M11	OK	OK	OK		OK	OK	OK			OK	OK	OK				OK	OK	OK		OK	OK	OK			OK	OK				OK
Contacts on cable	Locked	With cover		M18	OK	OK	OK		B	B	B			OK	OK	OK				OK	OK	OK		B	B	B			OK	OK				OK

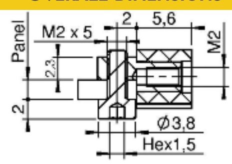
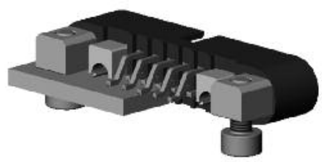
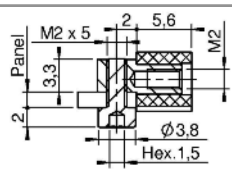
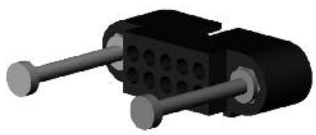
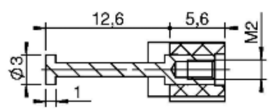
Make it a habit! Use easy & automatic configurators for CMM micro-connectors single part and mating-half construction





Recommended Torque : 0,2 N/m
Except 0,4 N/m for M46/M47

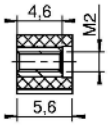
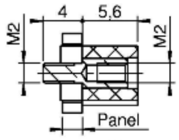
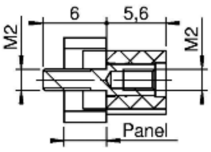
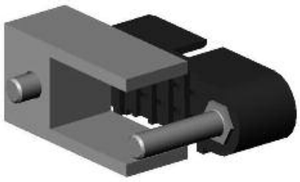
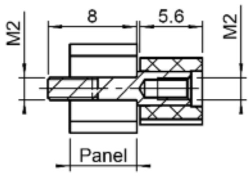
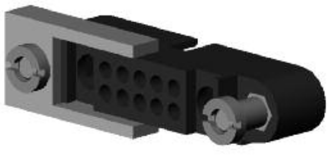
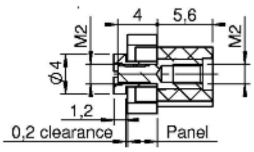
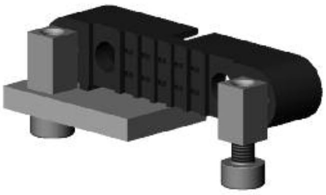
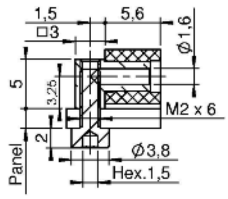
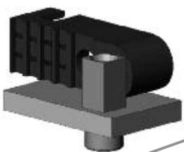
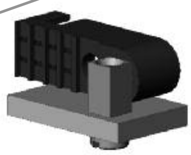
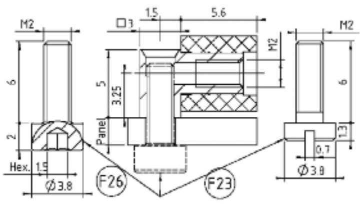
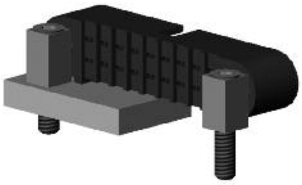
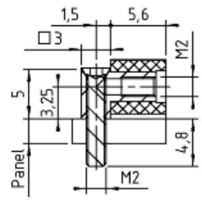
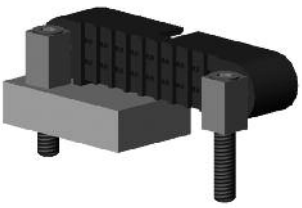
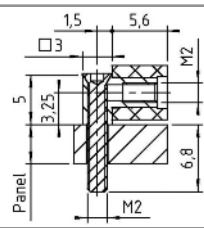
FIXING HARDWARE FOR CMM 220 MALE

Reference	Assembly on PCB	Overall dimensions	Recommendation
F27			**F27 :** CMM male : **Card edge** for HF contact **30-1500-CMM**
F34			**F34 :** CMM male : **Card edge** LF contact or mixed
F28			**F28 :** CMM male : **S-C** (E : straight) 

Please refer to the CMM Catalogue Guidelines for any other fixing not listed here.

Fixing for CMM 220 male

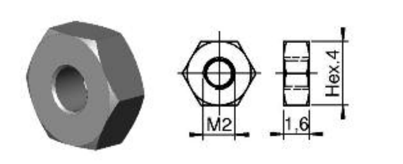
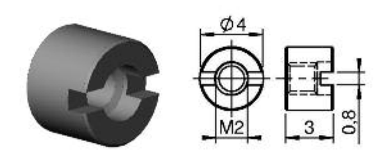
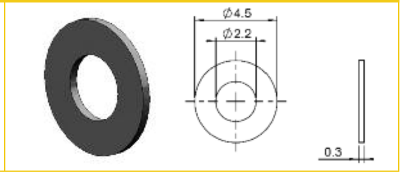
FIXING HARDWARE FOR CMM 220 MALE

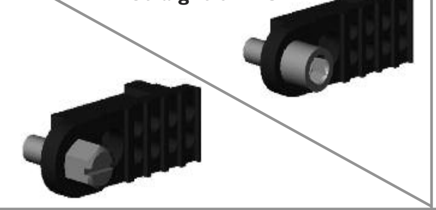
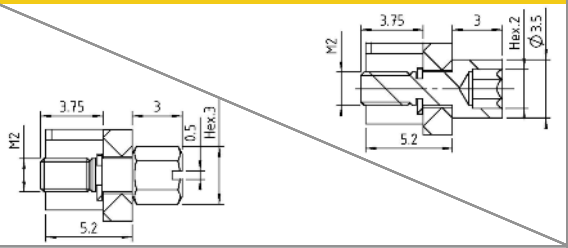
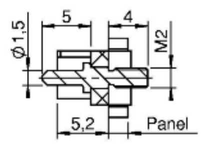
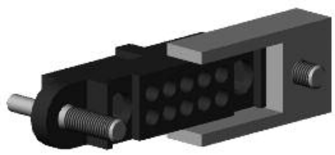
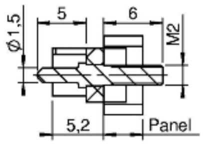
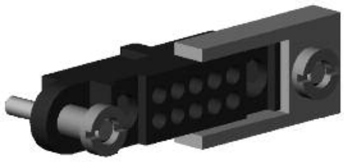
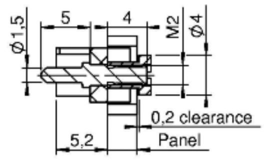
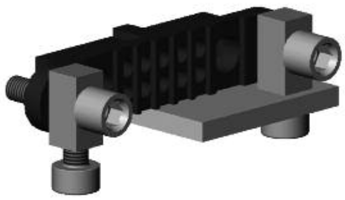
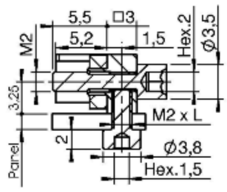
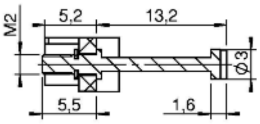
Reference	Assembly on PCB	Overall dimensions	Recommendation
F21	**Straight on PCB** 		**F21 :** CMM male : **Y-YL-T-S-C** (D-E : straight)
F22 	**Straight on PCB** **0,8 min / 2 max** 		**F22 :** CMM male : **Y-T-S-C** (D-E : straight)
F22H 			**F22H :** CMM male : **Y-T** (D : straight)
F24 	**Straight on PCB** **1,5 min / 4 max** 		**F24 :** CMM male : **YL-T-S-C** (D-E : straight)
F24H 			**F24H :** CMM male : **YL-T** (D : straight)
F24L	**Straight on PCB 6 max** 		**F24L :** CMM male : **T-TL** (D-E : straight)
F2xx **xx =** (PCB thickness + 0,2 mm) x 10 Example : for 3 mm PCB, the reference is **F232** (3 + 0,2) x 10 = 32 **xx =** 32	**Straight on PCB** **with floating option** 		**F2xx :** CMM male : **S-C** (E : straight)
F25	**90° on PCB** 		**F25 :** CMM male : **V-VL-R-S-C-E** (D : 90°)
F26 / **F23**	 **90° on PCB** 		**F26/F23 :** CMM male : **V-VL-R-S-C-E** (D : 90°)
F30 	**90° on PCB 2,5 max.** 		**F30 & F30H:** **CMM male :** **V-R-C-S-E** **(D : 90°)**
F30H 			
F31 	**90° on PCB 4,5 max.** 		**F31 & F31H:** CMM male : **VL-R-C-S-E** (D : 90°)
F31H 			

Please refer to the CMM Catalogue Guidelines for any other fixing not listed here.

Fixing for CMM 220 female

FIXING HARDWARE FOR CMM 220 FEMALE

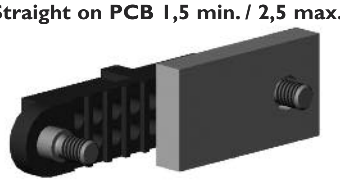
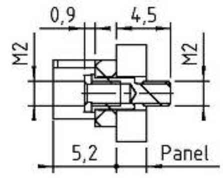
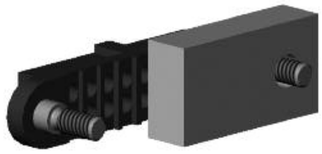
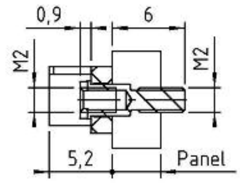
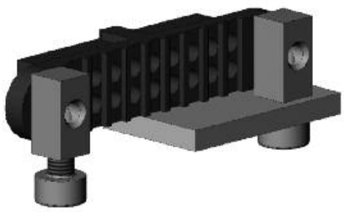
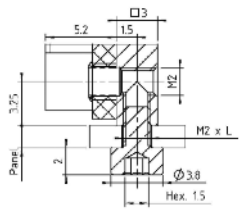
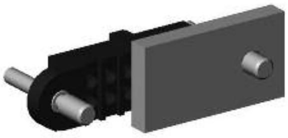
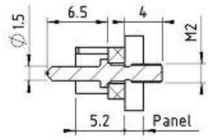
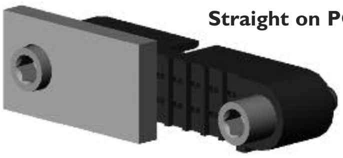
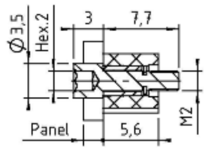
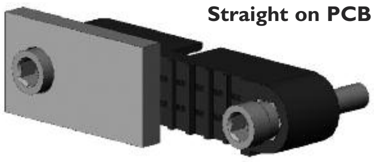
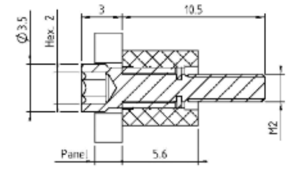
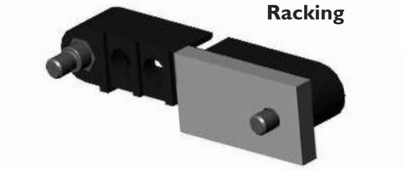
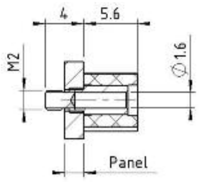
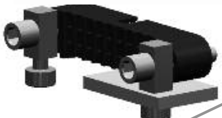
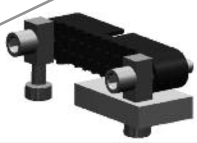
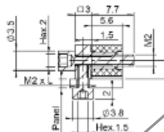
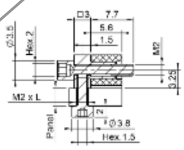
Hexagonal nut	Standard nut	"W" code for additional washer
		

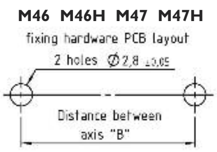
Reference	Assembly on PCB	Overall dimensions	Recommendation
M16 / **M11**	**Straight on PCB** 		**M16/M11 :** CMM Female : **Y-YL-T-S-C-E** (D : straight)
M12  / **M12H** 	**Straight on PCB 0,8 min / 2 max** 		**M12 :** CMM female : **Y-T-S-C** (D-E : straight) **M12H :** CMM female : **Y-T** (D : straight)
M12L  / **M12LH** 	**Straight on PCB 1,5 min / 4 max** 		**M12L :** CMM female : **Y-T-S-C** (D-E : straight) **M12LH :** CMM female : **YL-T** (D : straight)
M1xx **xx =** (PCB thickness + 0,2 mm) x 10 Example : for 3 mm PCB, the reference is **M132** (3 + 0,2) x 10 = 32 **xx =** 32	**Straight on PCB with floating option** 		**M1xx :** CMM female : **S-C** (E : straight)
M21 for PCB 1,6 mm (L = 4 mm) / **M21L** for PCB 3,2 mm (L = 5 mm)	**90° on PCB** 		**M21 :** CMM Female : **V-R-S-C-E** (D : 90°) **M21L :** CMM Female : **VL-R-S-C-E** (D : 90°)
M18	**Cover option** 		**M18 :** CMM female : **S-C** (E : straight) 

Please refer to the CMM Catalogue Guidelines for any other fixing not listed here.

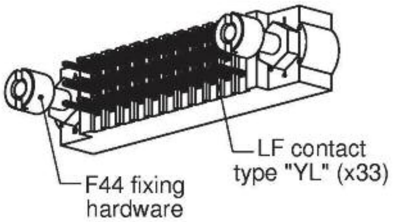
Other fixing hardware for CMM 220

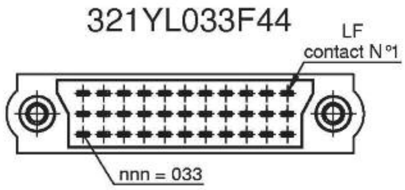
FIXING HARDWARE FOR CMM 220 FEMALE/MALE

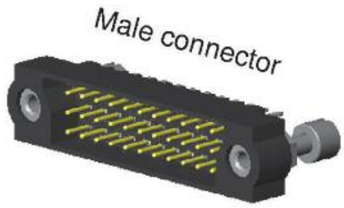
Reference	Assembly on PCB	Overall dimensions	Recommendation
M46  **M46H** 	**Straight on PCB 1,5 min. / 2,5 max.** 		**M46 :** CMM female : **Y-T-S-C** (D-E : straight) **M46H :** CMM female : **Y-T** (D : straight)
M47  **M47H** 	**Straight on PCB 1,5 min. / 4 max.** 		**M47 :** CMM female : **YL-T-S-C** (D-E : straight) **M47H :** CMM female : **YL-T** (D : straight)
M48 for PCB 1,6 mm (L = 3 mm) **M48M for PCB 2 mm (L = 4 mm)** **M48L for PCB 3,2 mm (L = 5 mm)**	**90° on PCB** 		**M48 / M48M / M48L :** CMM female : **V-VL-R-S-C-E** (D : 90°)
M49 **M49H**	**Straight on PCB** 		**M49 : CMM** female **:** **Y-T-S-C** (D-E : straight) **M49H : CMM** female **:** **Y-T** (D : straight)
F60	**Straight on PCB** 		**F60 : CMM** male **:** **Y-YL-T-S-C-E** (D : straight)
F61	**Straight on PCB** 		**F61 :** CMM male : **Y-YL-T-S-C-E** (D : straight)
F62 **F62H**	**Racking** 		**F62 : CMM** male **:** **Y-T-S-C** (D-E : straight) **F62H : CMM** male **:** **Y-T** (D : straight)
F63 for PCB 1,6 mm **F63L for PCB 3,2 mm**	**90° on PCB**  	 	**F63 : CMM** male **:** **V-R-S-C-E** (D : 90°) **F63L : CMM** male **:** **VL-R-S-C-E** (D : 90°)

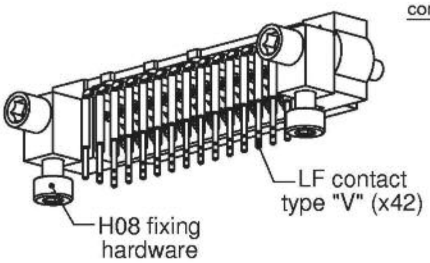


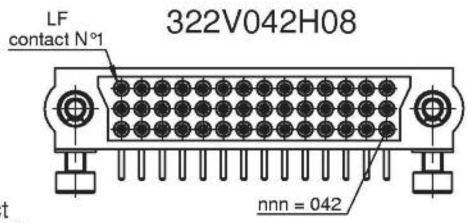
CMM 320 with LF contacts

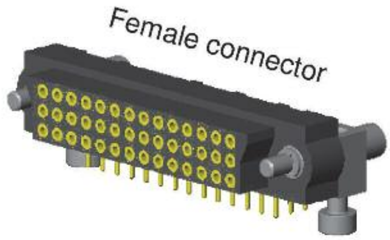










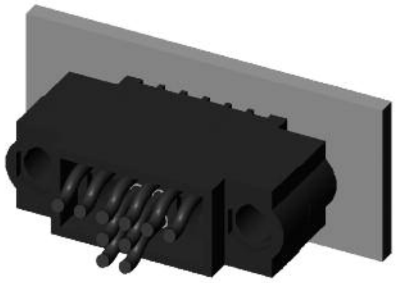


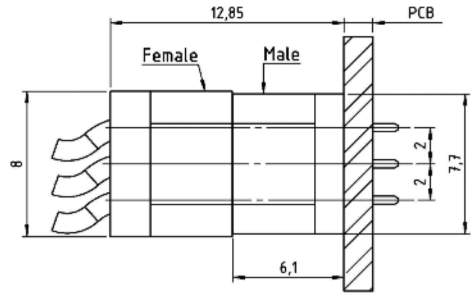
PART NUMBERING REMINDER

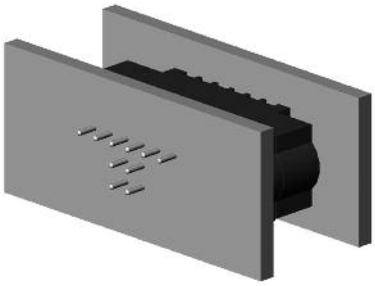
	Code with Low Frequency contacts only				
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware
				n n n	
3 rows	32	1 male 2 female	Refer to table on page 7	006 to 120	Refer to pages 69 to 74

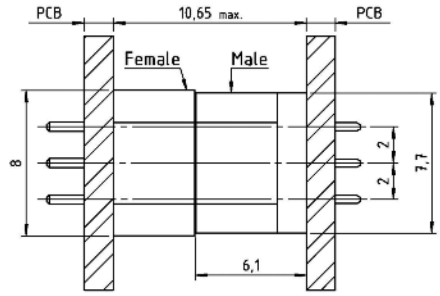
CMM 320
Configuration

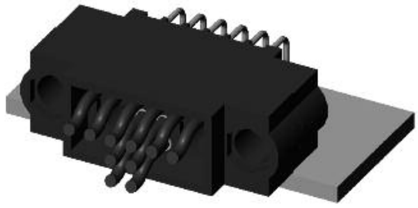
CONNECTOR SPACING

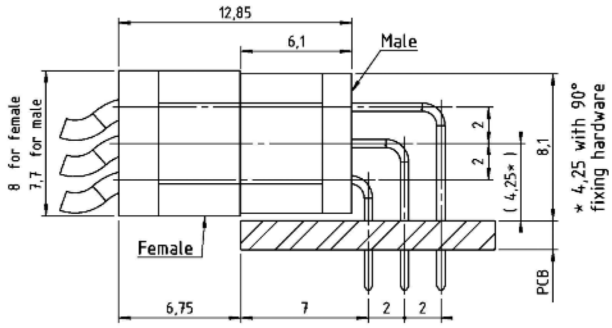


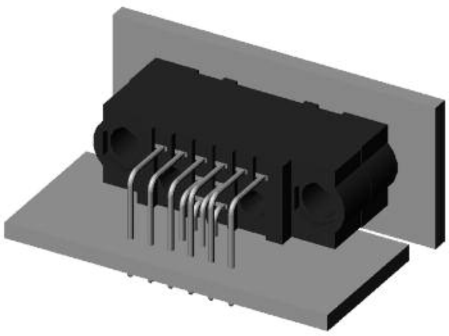


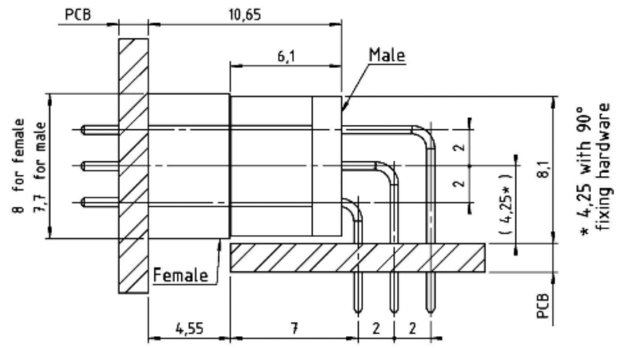




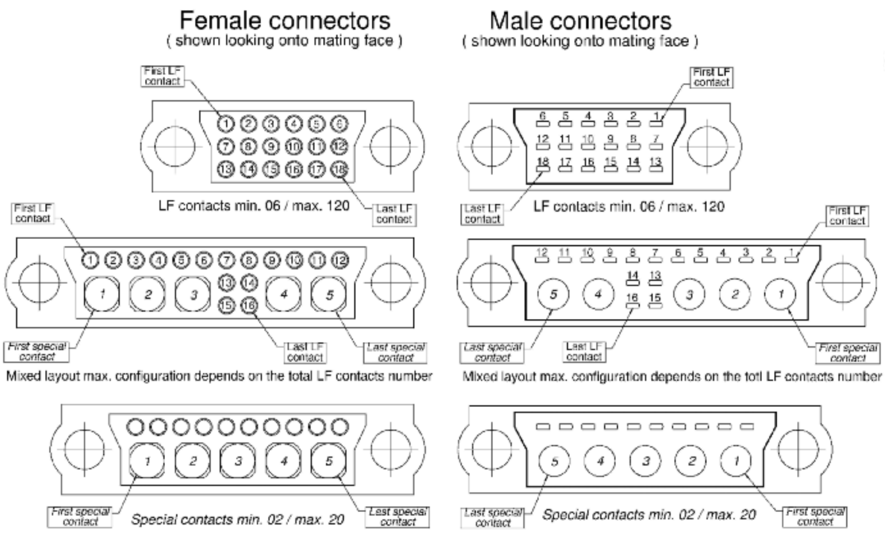








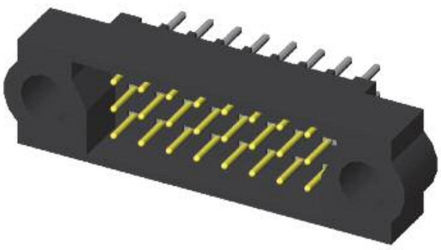
CONTACTS POSITIONS

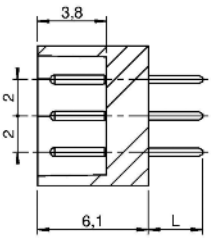


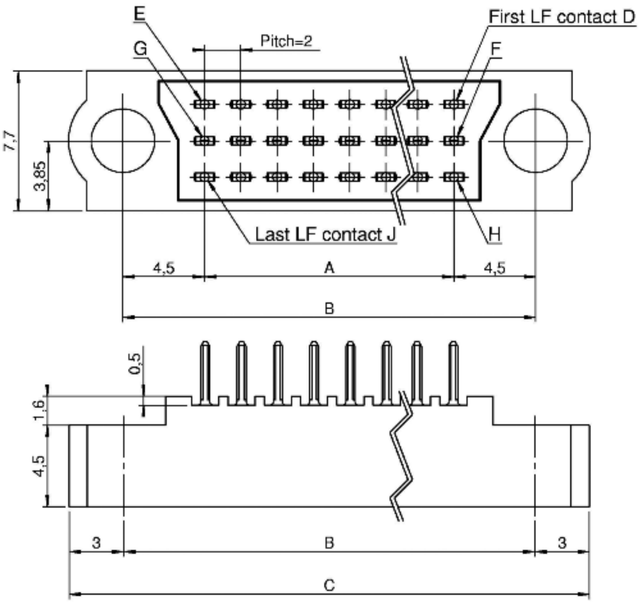
NICOMATIC

CMM 320 Male

STRAIGHT PCB FOR LF CONTACTS ONLY







Part numbering :

Type : Y-YL

3 2 1 _ n n n _

See Fixing on pages 69 to 74
"Fxx" without fixing

nnn = number of LF contacts

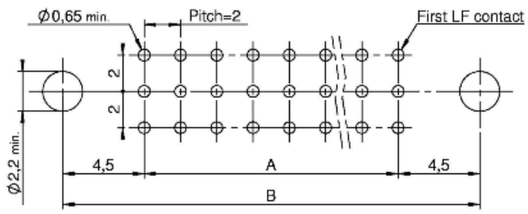
Type	L
Y	3
YL	4,5

nnn min = 006
nnn max = 120

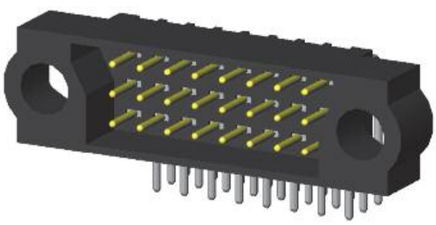
$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

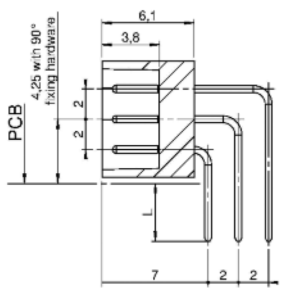
B = A + 9
C = A + 15

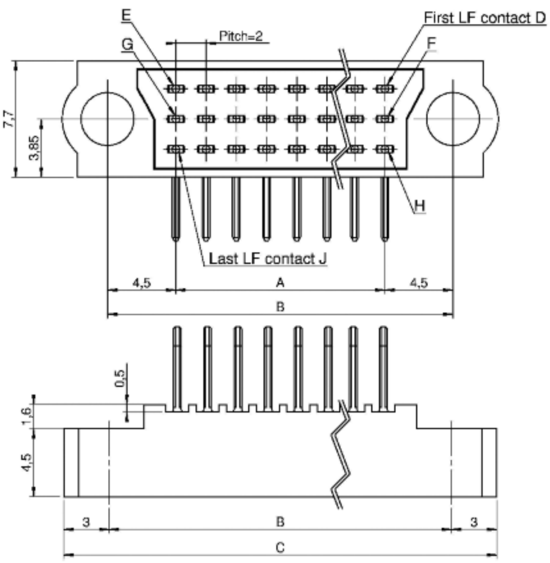
Refer to dimension table on cover page



90° PCB FOR LF CONTACTS ONLY







Part numbering :

Type : V-VL

3 2 1 _ n n n _

See Fixing on pages 69 to 74
"Fxx" without fixing

nnn = number of LF contacts

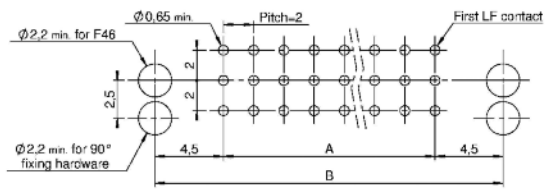
Type	L
V	3
VL	4,5

nnn min = 006
nnn max = 120

$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

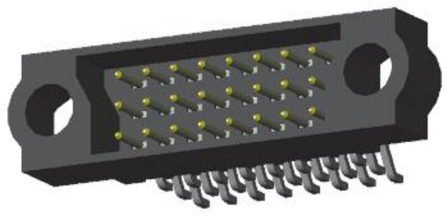
B = A + 9
C = A + 15

Refer to dimension table on cover page



CMM 320 Male

90° SMT FOR LF CONTACTS ONLY



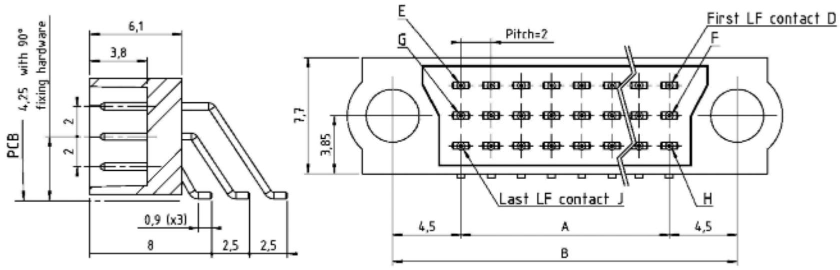
Part numbering :

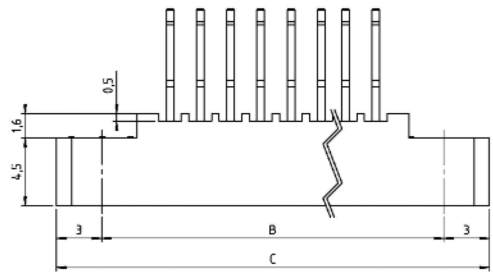
3 2 1 R n n n

See Fixing on pages 69 to 74
"Fxx" without fixing

nnn = number of LF contacts

Optional: Packaging in reel available upon request



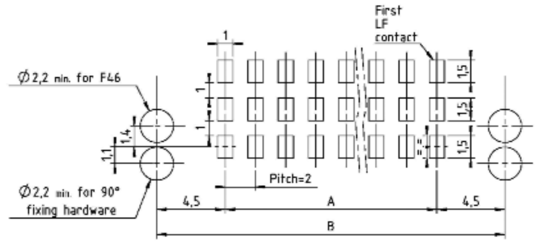


nnn min = 006
nnn max = 120

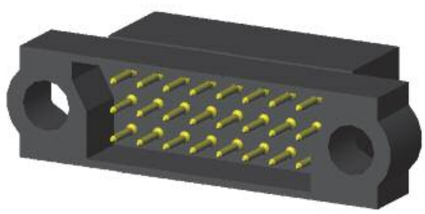
$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

B = A + 9
C = A + 15

Refer to dimension table on cover page



CRIMP FOR LF CONTACTS ONLY



Part numbering :

Type : S-C

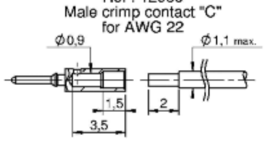
3 2 1 n n n

See Fixing on pages 69 to 74
"Fxx" without fixing

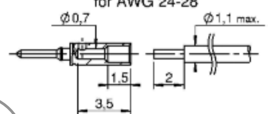
nnn = number of LF contacts

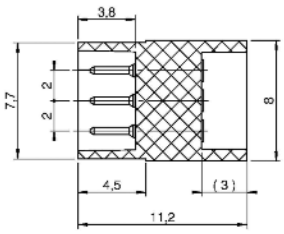
Type	Gauge
S	24-28
C	22

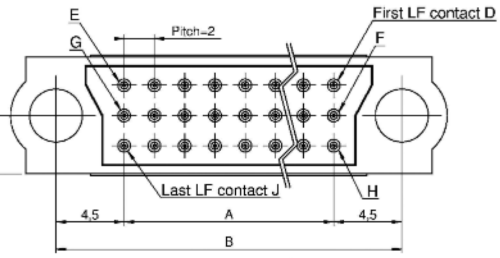
Ref : 12960
Male crimp contact "C"
for AWG 22

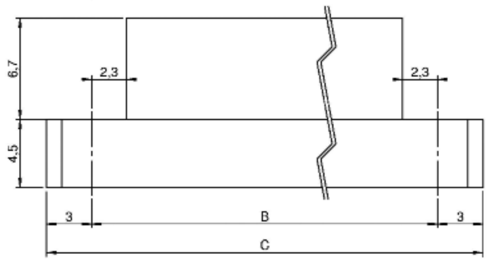


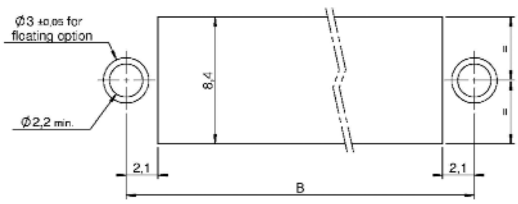
Ref : 12969
Male crimp contact "S"
for AWG 24-28











nnn min = 006
nnn max = 120

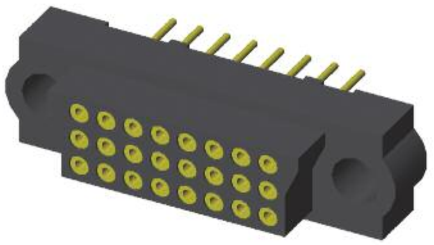
$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

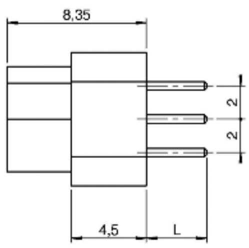
B = A + 9
C = A + 15

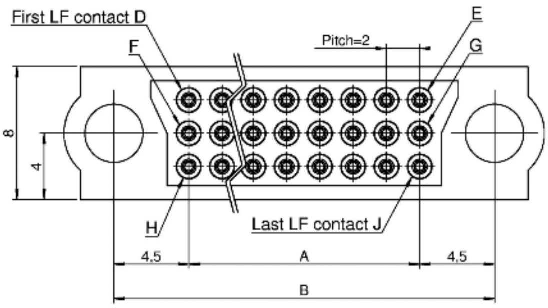
Refer to dimension table on cover page

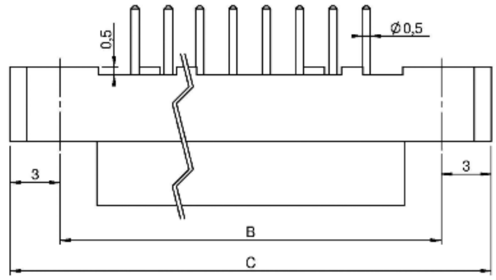
CMM 320 Female

STRAIGHT PCB FOR LF CONTACTS ONLY









Part numbering :

Type : Y-YL

3 2 2 ▢ n n n ▢

See Fixing on pages 69 to 74
"Mxx" without fixing

nnn = number of LF contacts

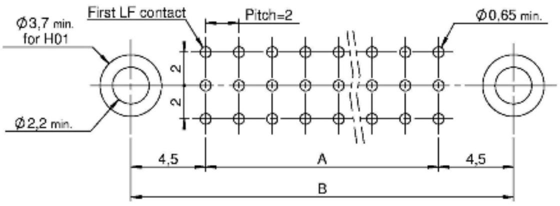
Type	L
Y	3
YL	4,5

nnn min = 006
nnn max = 120

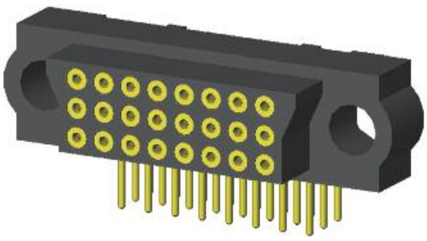
$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

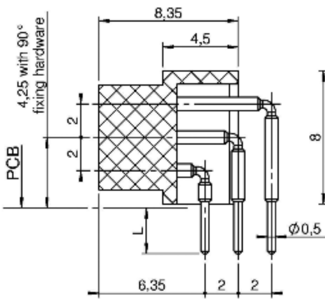
B = A + 9
C = A + 15

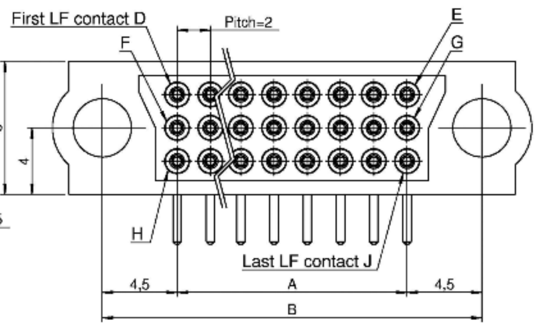
Refer to dimension table on cover page

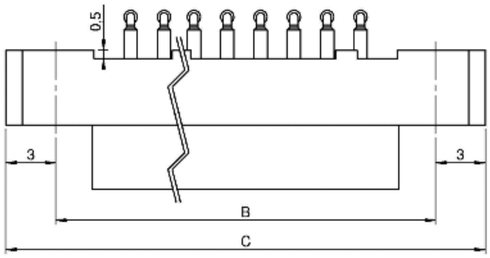


90° PCB FOR LF CONTACTS ONLY









Part numbering :

Type : V-VL

3 2 2 ▢ n n n ▢

See Fixing on pages 69 to 74
"Mxx" without fixing

nnn = number of LF contacts

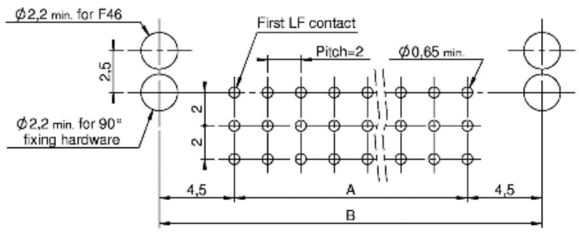
Type	L
V	3
VL	4,5

nnn min = 006
nnn max = 120

$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

B = A + 9
C = A + 15

Refer to dimension table on cover page



CMM 320 Female

CRIMP FOR LF CONTACTS ONLY

Part numbering :

Type : S-C

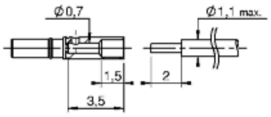
3 2 2 _ n n n _

See Fixing on pages 69 to 74
"Mxx" without fixing

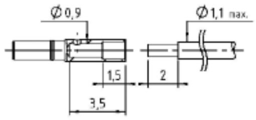
nnn = number of LF contacts

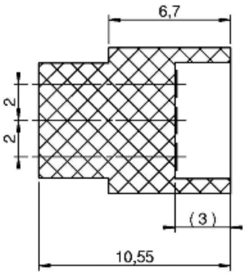
Type	Gauge
S	24-28
C	22

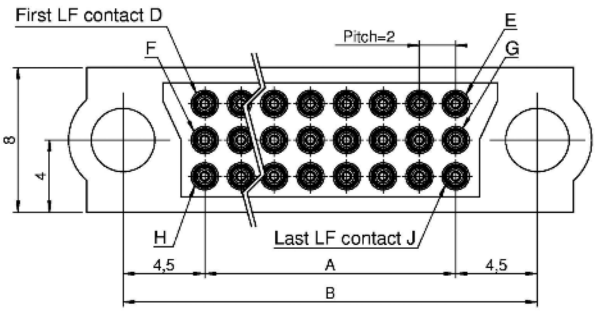
Ref : C12468
Female crimp contact "S"
for AWG 24-28

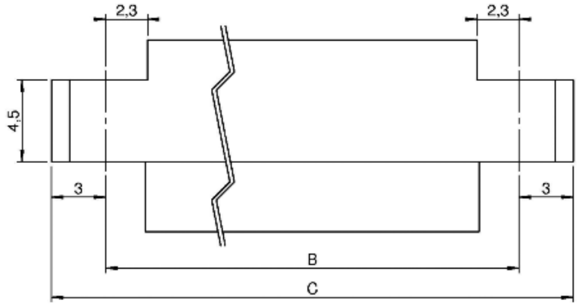


Ref : C13064-P
Female crimp contact "C"
for AWG 22 cable









nnn min = 006

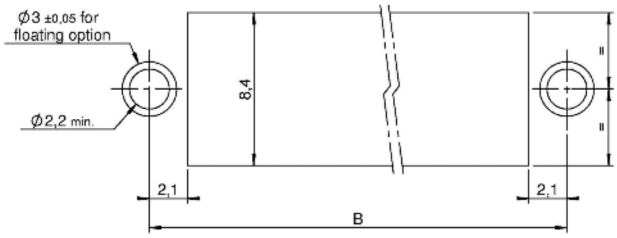
nnn max = 120

$$A = \left[\frac{nnn \times 2}{3}\right] - 2$$

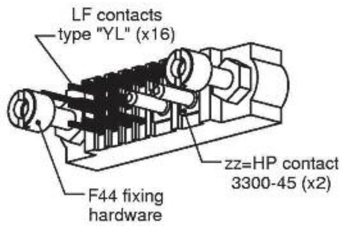
B = A + 9

C = A + 15

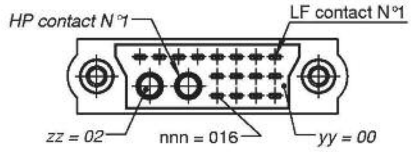
Refer to dimension table on cover page

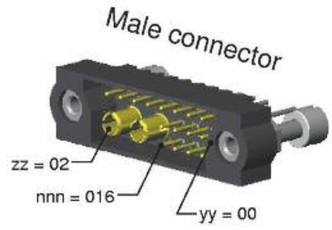


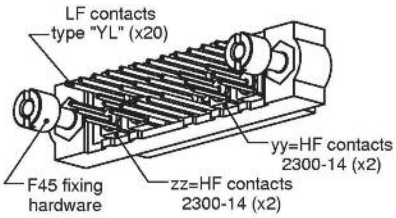
CMM 320 with mixed-layout



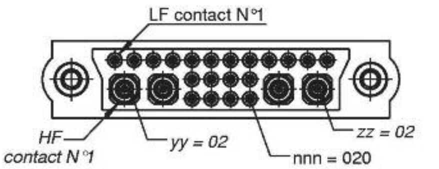
321YL016F44-0002-330045

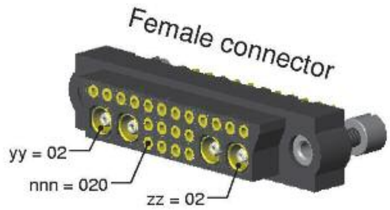


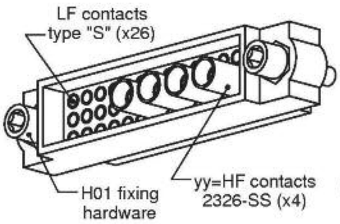




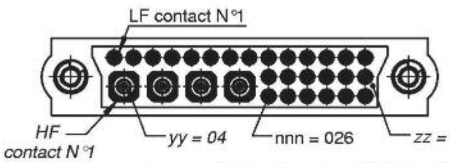
322YL020F45-0202-230014



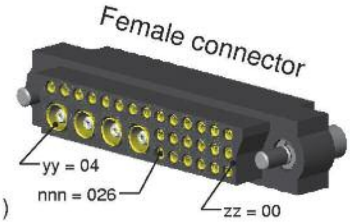


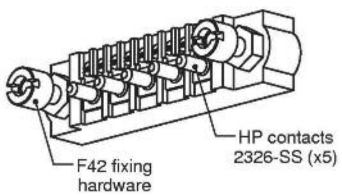


322S026H01-0400-2326SS

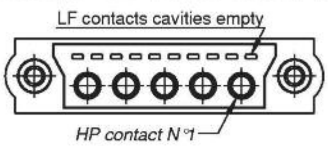


(HF contact are supplied -not fitted- under P/N 30-2326-SS)

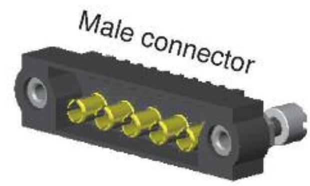


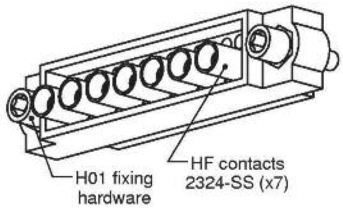


321D000F42-0005-3300CMM

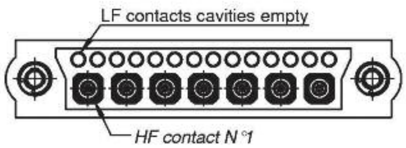


"D" stated in P/N for connectors on PCB
with only special contacts.



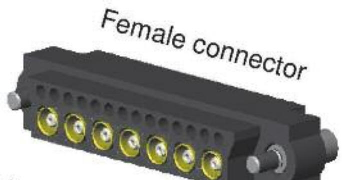


322E000H01-0007-2324SS



(HF contact are supplied -not fitted- under P/N 30-2324-SS)

"E" stated in P/N for connectors on cable
with only special contacts.

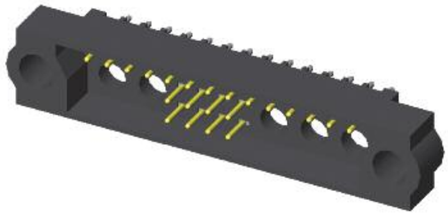


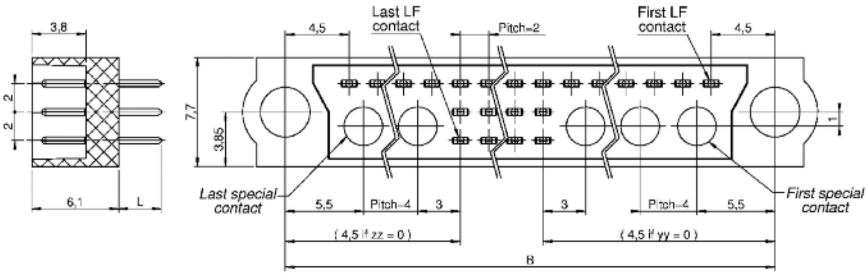
PART NUMBERING REMINDER

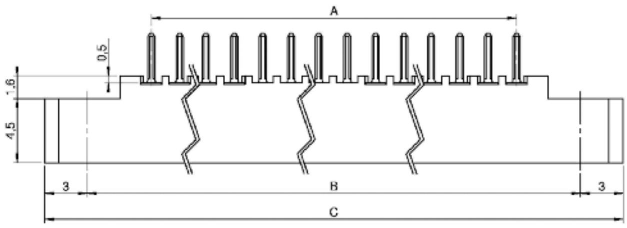
	Code with Low Frequency contacts only					Additional code for mixed-layout connector (HF/HP)		
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware	Number of HF/HP contacts pin 1 side (LF contact number 1)	Number of HF/HP contacts opposite to LF contact number 1	HF/HP Contact Type
				n n n	–	y y	z z	–
3 rows	32	1 male 2 female	Refer to table on page 7	006 to 120	Refer to pages 69 to 74	Depends upon the number of LF contacts HF / HP : 20 contacts max. Type of HF/HP contact : please refer to pages 8-9		HF/HP 30 please refer to pages 75 to 94

CMM 320
Male mixed-layout

STRAIGHT PCB







Part numbering :

Number of contacts LF pin 1 side | Number of contacts opposite side LF pin 1

3 2 1 n n n _ - y y z z - _ _ _ _ _ _ _

Type : Y-YL | See Fixing on pages 69 to 74 "Fxx" without fixing | HF or HP P/N refer to page 75

nnn = number of LF contacts

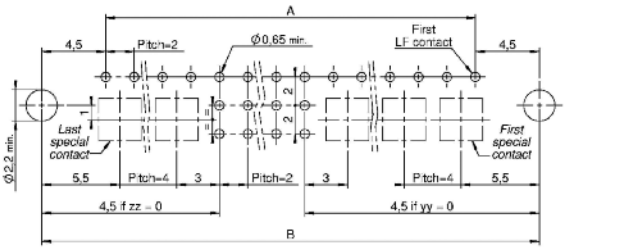
Type	L
Y	3
YL	4,5

$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3}\right]-2$$

B = A + 9

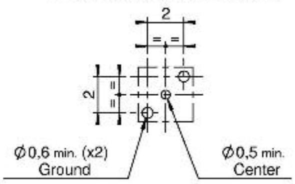
B max. = 87

C = A + 15

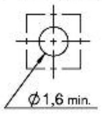


Pattern for special contact :

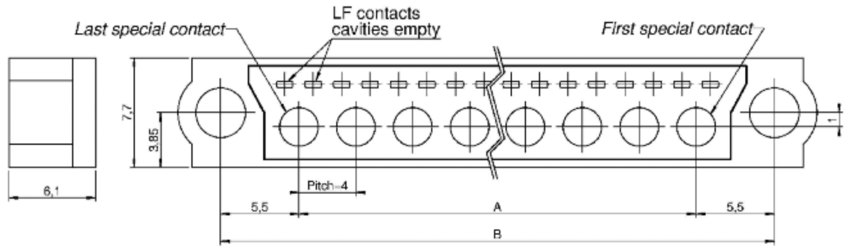
HF 30-1300-xx PCB lay-out

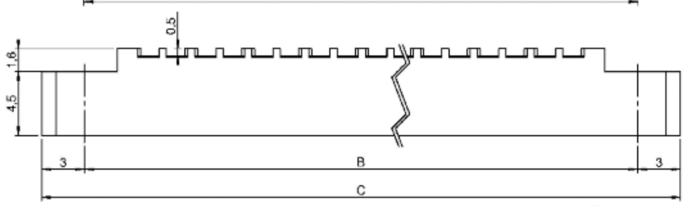


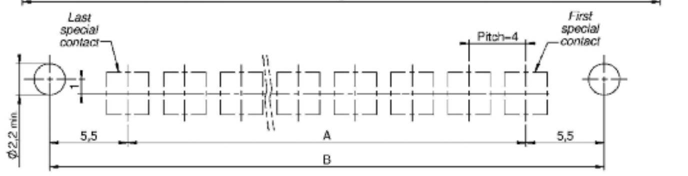
HP 30-3300-xx PCB lay-out



STRAIGHT PCB FOR HP/HF CONTACTS ONLY







Part numbering :

Number of HF or HP contacts

3 2 1 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Fxx" without fixing | HF or HP P/N refer to page 75

A = (zz x 4) - 4

B = A + 11

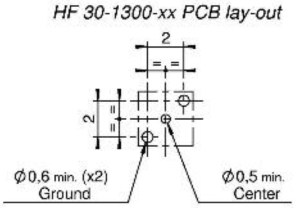
C = A + 17

Special contacts min. : 02

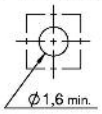
max. : 20

Pattern for special contact :

HF 30-1300-xx PCB lay-out

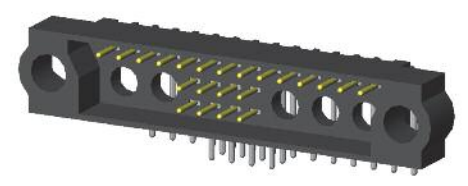


HP 30-3300-xx PCB lay-out



CMM 320
Male mixed-layout

90° PCB



Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

3 2 1 _ n n n _ - y y z z - _ _ _ _ _ _ _

Type : V-VL

See Fixing on pages 69 to 74 "Fxx" without fixing

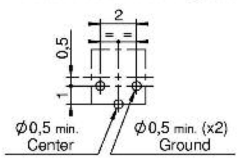
HF or HP P/N refer to page 75

nnn = number of LF contacts

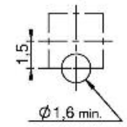
Type	L
V	3
VL	4,5

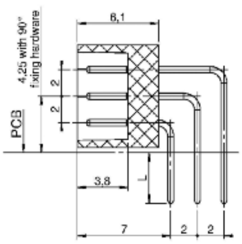
Pattern for special contact :

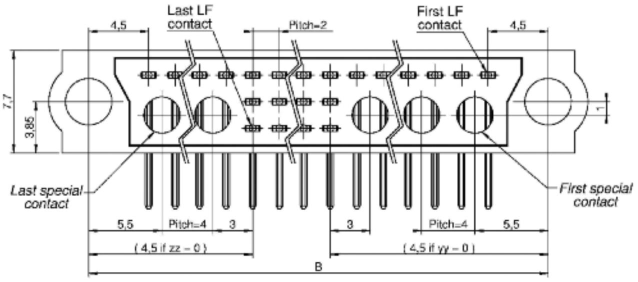
HF 30-1400-xx PCB lay-out

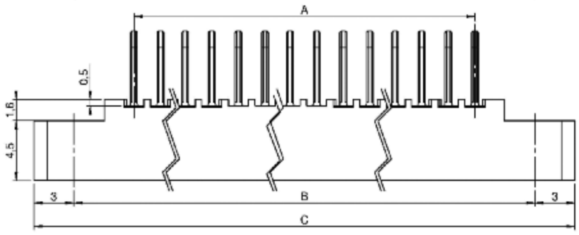


HP 30-3400-xx PCB lay-out







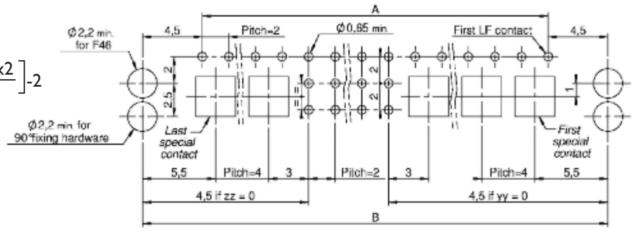


$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3}\right]-2$$

B = A + 9

B max. = 87

C = A + 15



Special contacts mounted

90° PCB FOR HP/HF CONTACTS ONLY

Part numbering :

Number of HF or HP contacts

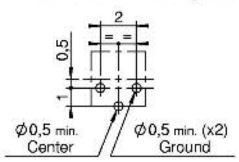
3 2 1 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Fxx" without fixing

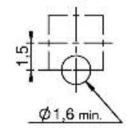
HF or HP P/N refer to page 75

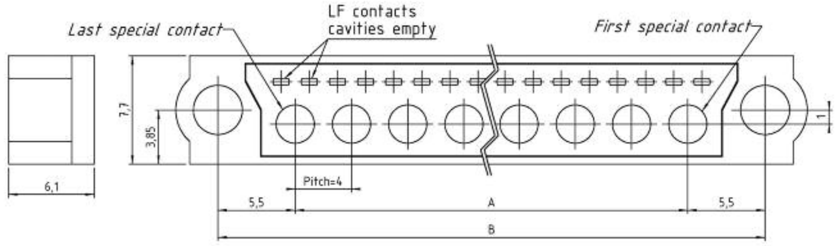
Pattern for special contact :

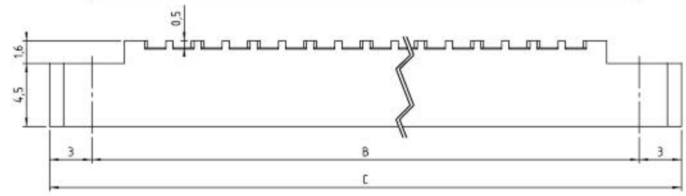
HF 30-1400-xx PCB lay-out

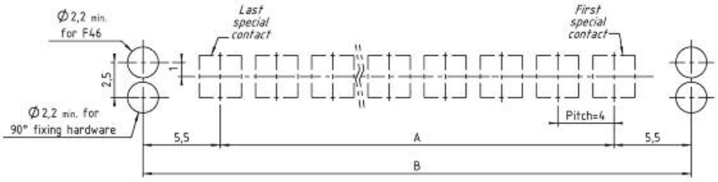


HP 30-3400-xx PCB lay-out









A = (zz x 4) - 4

B = A + 11

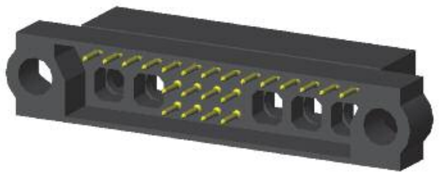
C = A + 17

Special contacts min. : 02

max. : 20

CMM 320
Male mixed-layout

CRIMP



Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

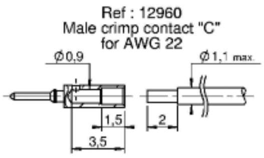
3 2 1 _ n n n _ _ - y y z z - _ _ _ _ _ _ _

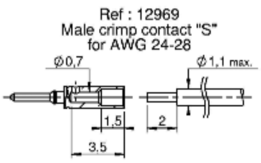
Type : S-C

See Fixing on pages 69 to 74 "Fxx" without fixing

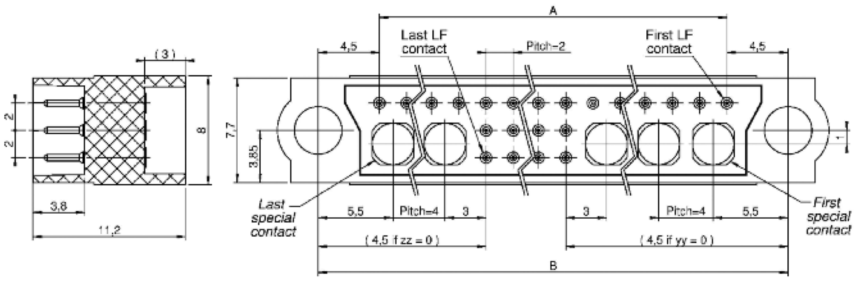
HF or HP P/N refer to page 75

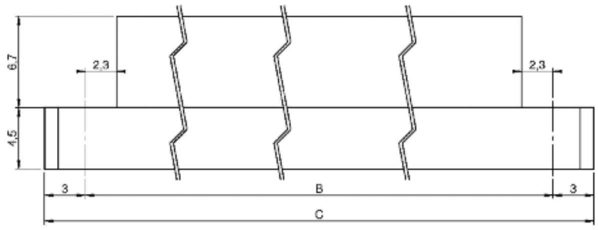
nnn = number of LF contacts

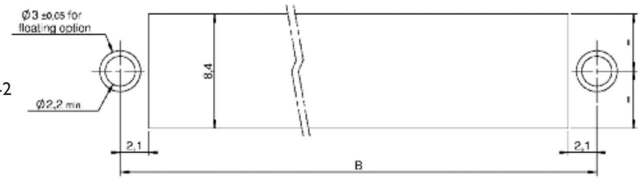




Type	Gauge
S	24-28
C	22







$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3}\right]-2$$

B = A + 9
B max. = 87
C = A + 15

CRIMP FOR HP/HF CONTACTS ONLY

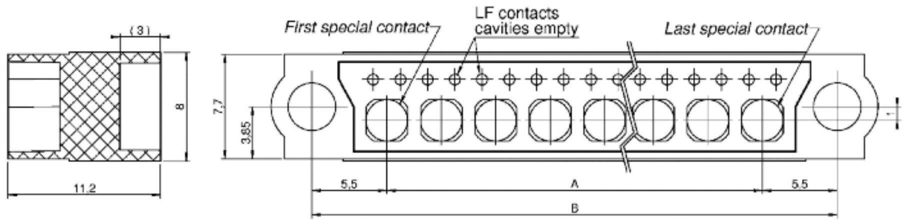
Part numbering :

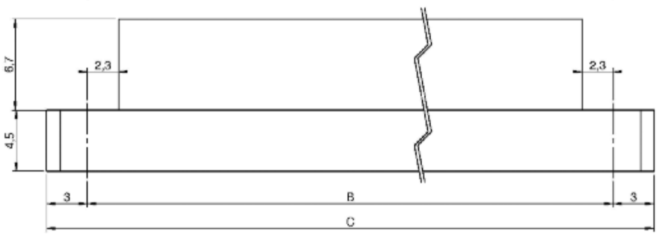
Number of HF or HP contacts

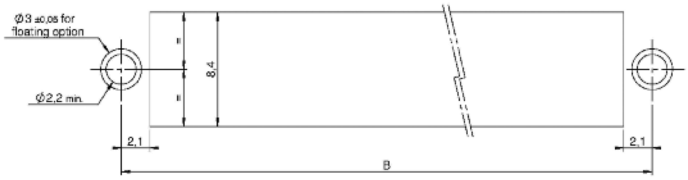
3 2 1 E 0 0 0 _ _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Fxx" without fixing

HF or HP P/N refer to page 75





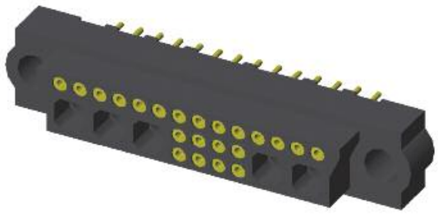


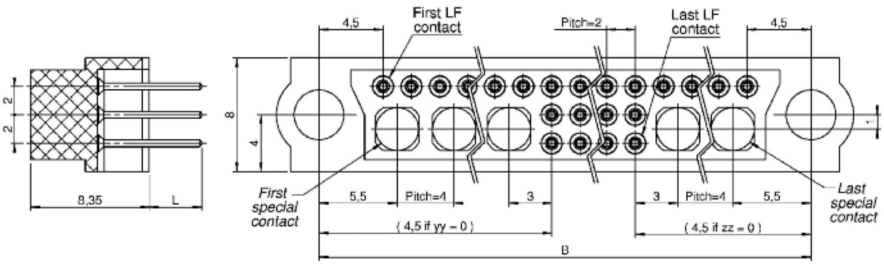
A = (zz x 4) - 4
B = A + 11
C = A + 17

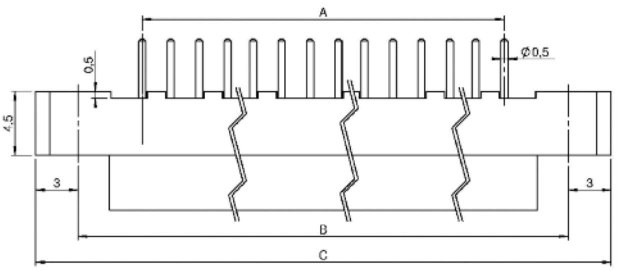
Special contacts min. : 02
max. : 20

CMM 320
Female mixed-layout

STRAIGHT PCB







Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

3 2 2 n n n ☐ - y y z z - ☐☐☐☐☐☐☐

Type :Y-YL

See Fixing on pages 69 to 74 “Mxx” without fixing

HF or HP P/N refer to page 75

nnn = number of LF contacts

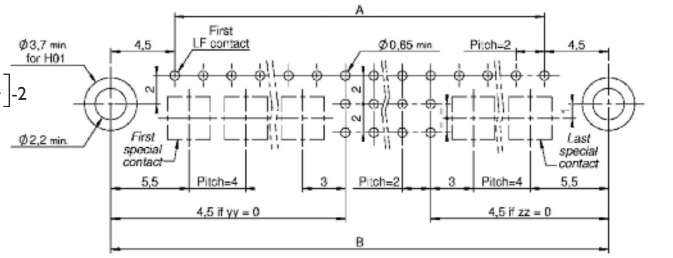
Type	L
Y	3
YL	4,5

$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3}\right]-2$$

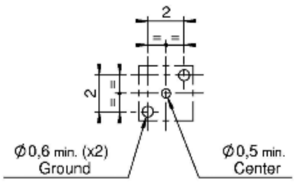
B = A + 9

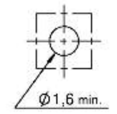
B max. = 87

C = A + 15

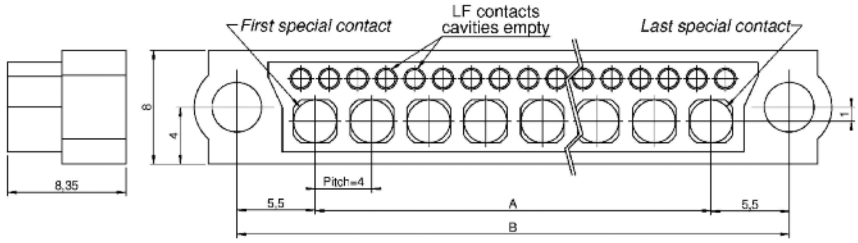


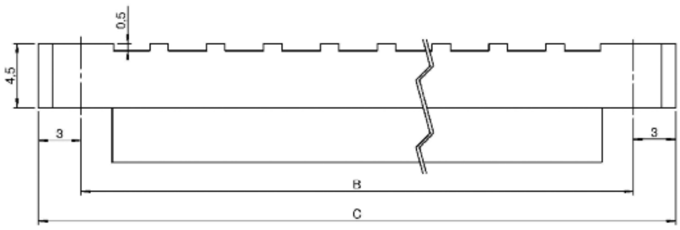
Pattern for special contact :





STRAIGHT PCB FOR HP/HF CONTACTS ONLY





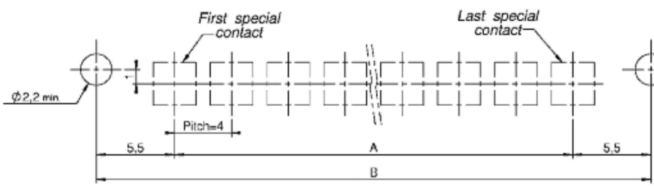
Part numbering :

Number of HF or HP contacts

3 2 2 D 0 0 0 ☐ - 0 0 z z - ☐☐☐☐☐☐☐

See Fixing on pages 69 to 74 “Mxx” without fixing

HF or HP P/N refer to page 75



A = (zz x 4) - 4

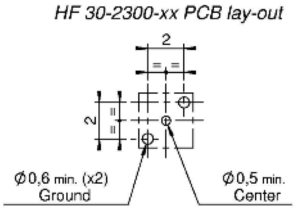
B = A + 11

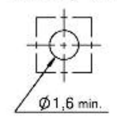
C = A + 17

Special contacts min. : 02

max. : 20

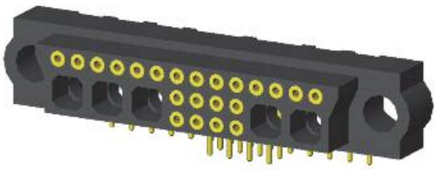
Pattern for special contact :





CMM 320
Female mixed-layout

90° PCB



Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

3 2 2 n n n _ - y y z z - _ _ _ _ _ _ _

Type :V-VL

See Fixing on pages 69 to 74 "Mxx" without fixing

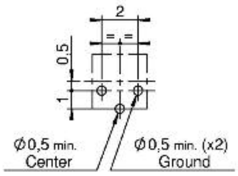
HF or HP P/N refer to page 75

nnn = number of LF contacts

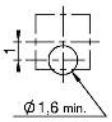
Type	L
V	3
VL	4,5

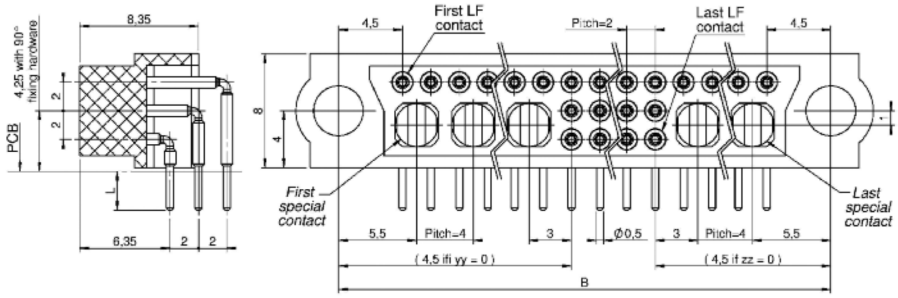
Pattern for special contact :

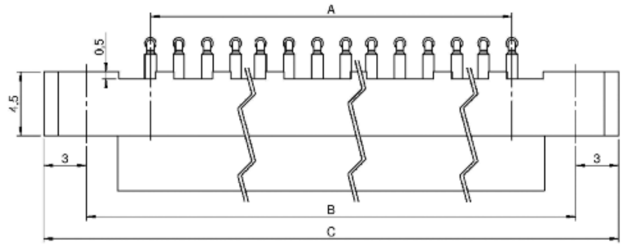
HF 30-2400-xx PCB lay-out



HP 30-4400-xx PCB lay-out





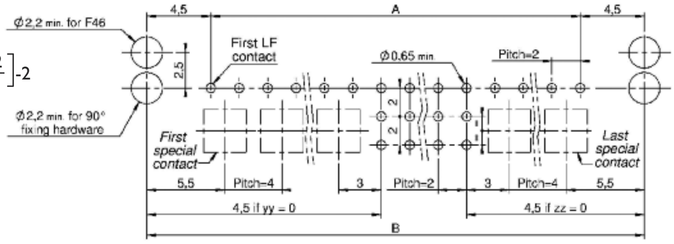


$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3} \right] - 2$$

B = A + 9

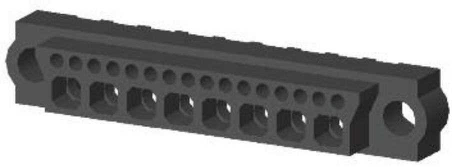
B max. = 87

C = A + 15



Special contacts mounted

90° PCB FOR HP/HF CONTACTS ONLY



Part numbering :

Number of HF or HP contacts

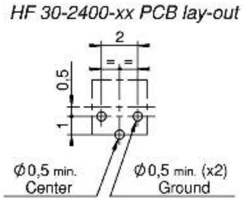
3 2 2 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Mxx" without fixing

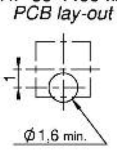
HF or HP P/N refer to page 75

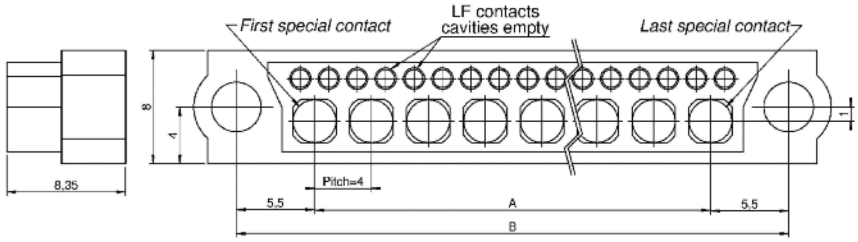
Pattern for special contact :

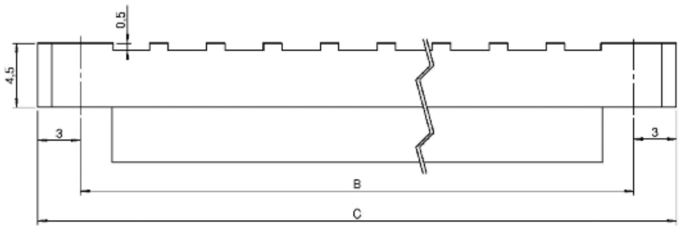
HF 30-2400-xx PCB lay-out

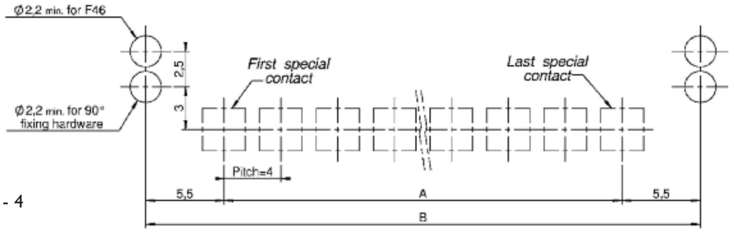


HP 30-4400-xx PCB lay-out









A = (zz x 4) - 4

B = A + 11

C = A + 17

Special contacts min. : 02

max. : 20

CMM 320
Female mixed-layout

CRIMP

Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

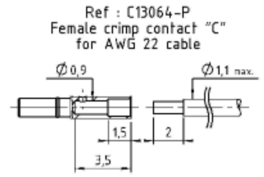
3 2 2 n n n _ - y y z z - _ _ _ _ _ _ _

Type : S-C

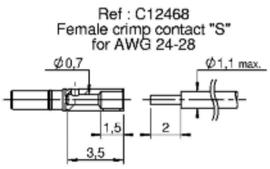
See Fixing on pages 69 to 74 "Mxx" without fixing

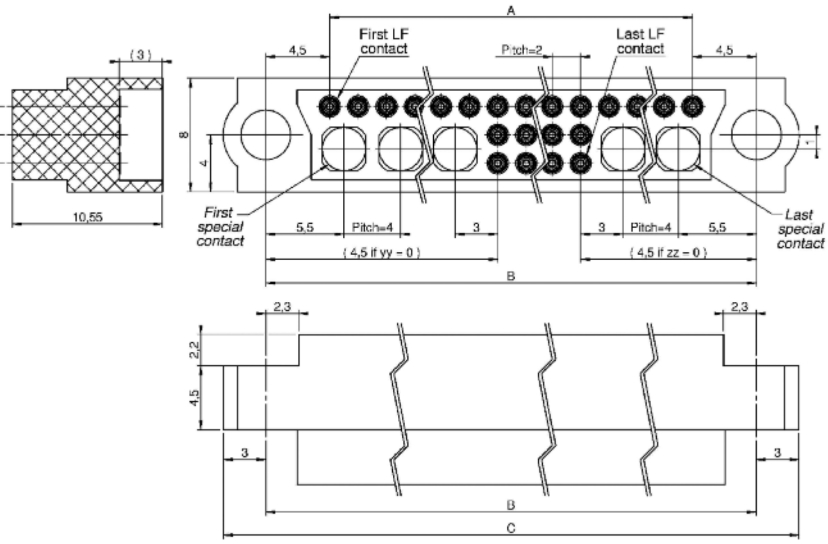
HF or HP P/N refer to page 75

nnn = number of LF contacts



Type	Gauge
S	24-28
C	22



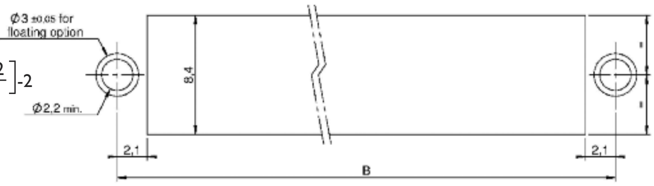


$$A = \left[\frac{\{(yy+zz)x4+nnn\}x2}{3}\right]-2$$

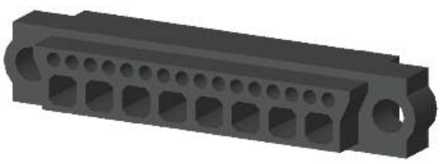
B = A + 9

B max. = 87

C = A + 15



CRIMP FOR HP/HF CONTACTS ONLY



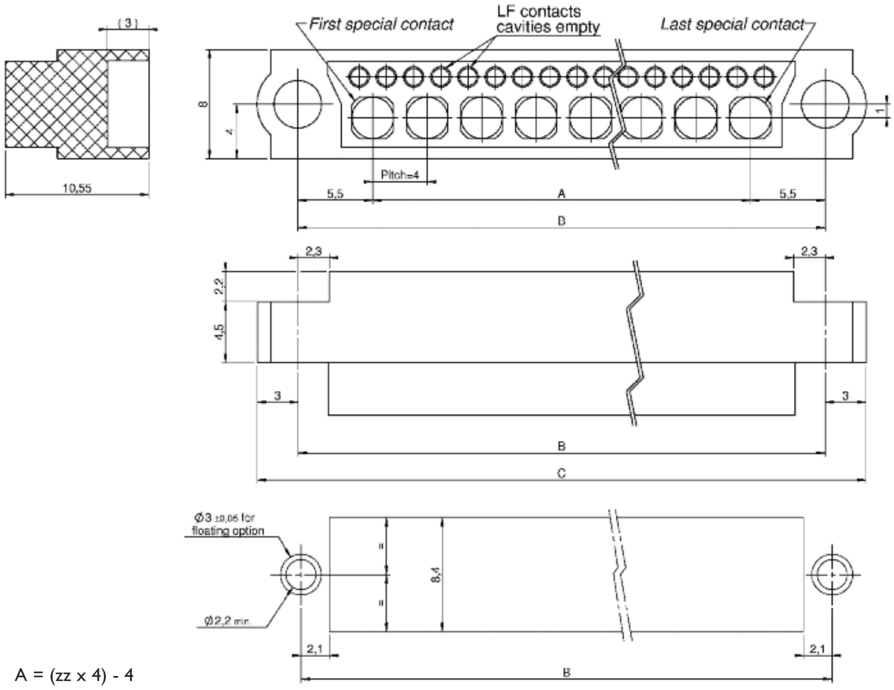
Part numbering :

Number of HF or HP contacts

3 2 2 E 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Mxx" without fixing

HF or HP P/N refer to page 75



A = (zz x 4) - 4

B = A + 11

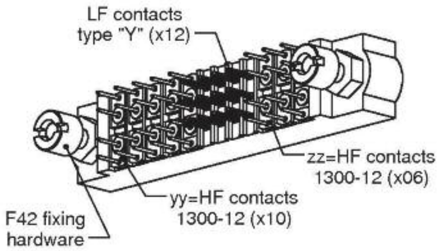
C = A + 17

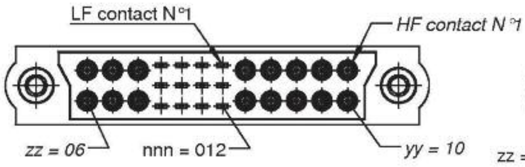
Special contacts min. : 02

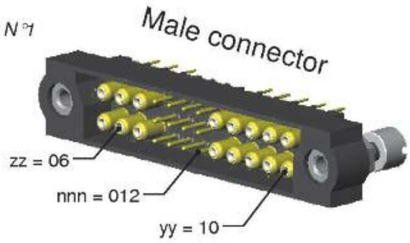
max. : 20

CMM 340

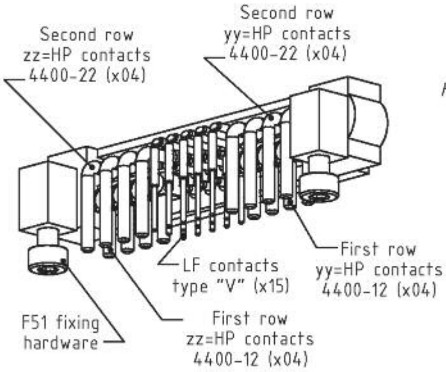
341Y012F42-1006-130012

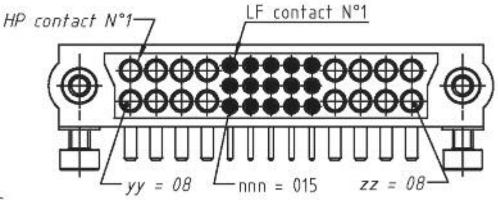




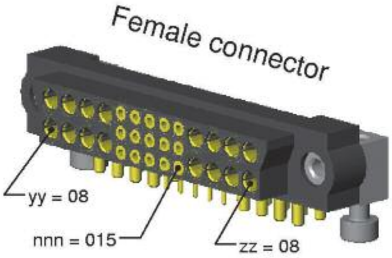


342V015F51-0808-440002

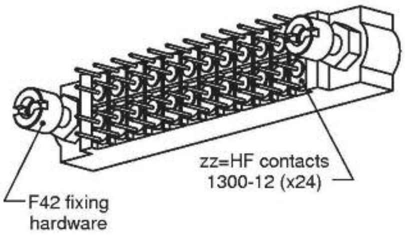


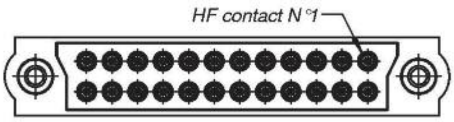


P/N for connector :
HP 4400-12 + HP 4400-22 = 4400-02

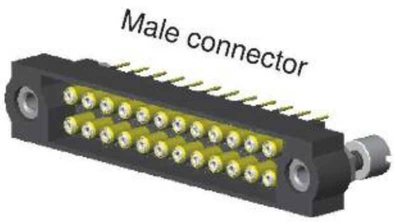


341D000F42-0024-130012

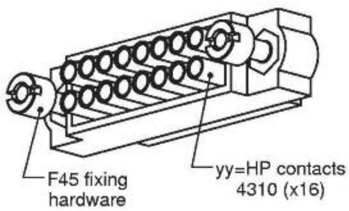


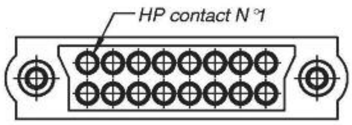


"D" stated in P/N for connectors on PCB
with only special contacts.

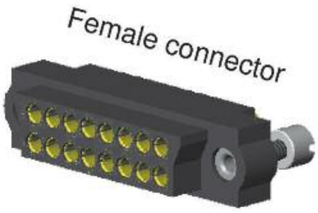


342E000F45-0016-4310





(HP contacts are supplied -not fitted- under P/N 22-4310)
"E" stated in P/N for connectors on cable
with only special contacs.

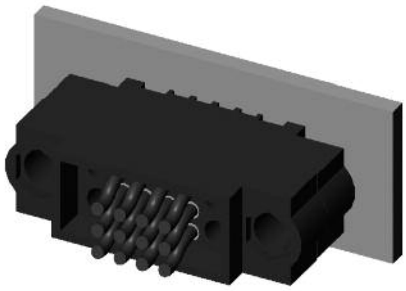


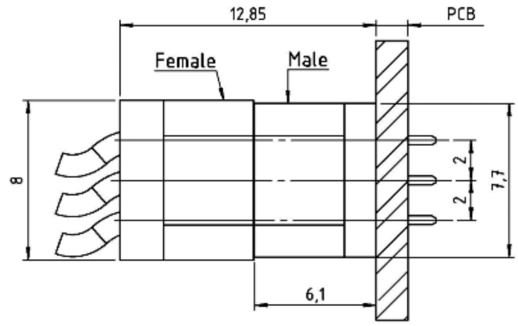
PART NUMBERING REMINDER

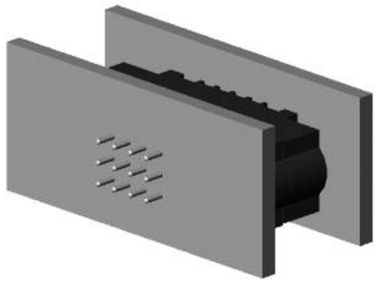
	Code with Low Frequency contacts only					Additional code for mixed-layout connector (HF/HP)		
	Series	Gender	Termination Style	Number of LF contacts	Fixing Hardware	Number of HF/HP contacts pin 1 side (LF contact number 1)	Number of HF/HP contacts opposite to LF contact number 1	HF/HP Contact Type
				n n n	–	y y	z z	–
3 rows	34	**1** male **2** female	Refer to table on page 7	Refer to the series 320	Refer to pages 69 to 74	Depends upon the number of LF contacts HF / HP : 64 contacts max. Type of HF/HP contact : please refer to pages 10-11		HP/HF 22 please refer to pages 95 to 102

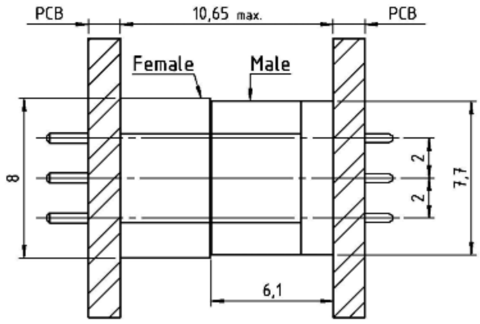
CMM 340
Configuration

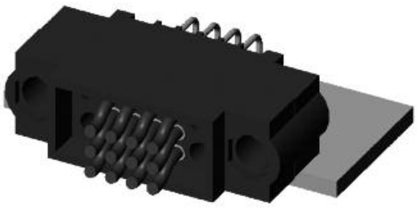
CONNECTOR SPACING

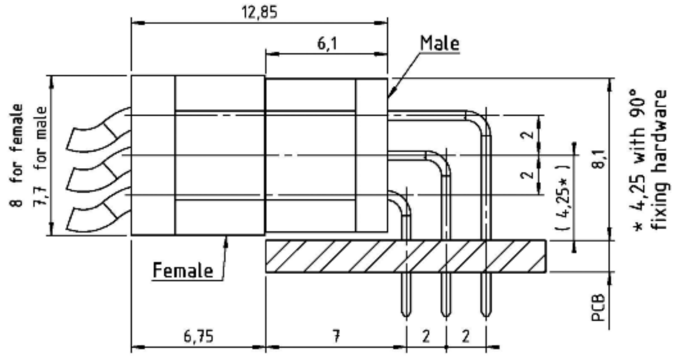


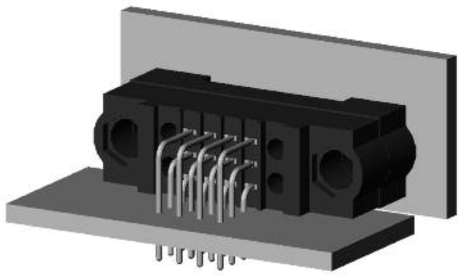


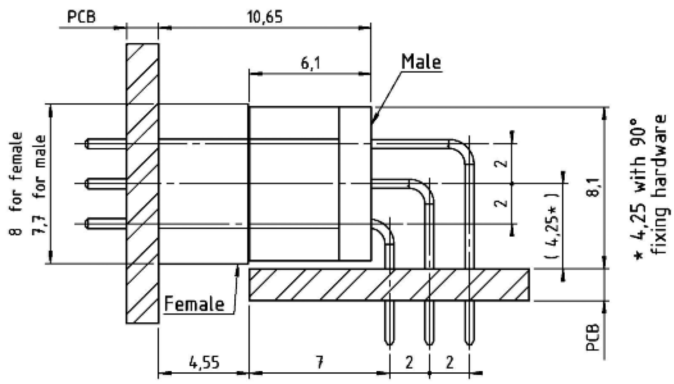






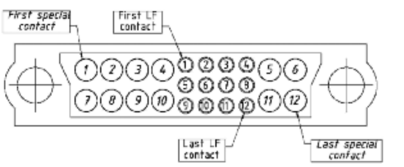






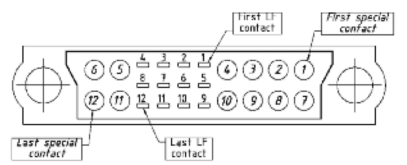
CONTACTS POSITIONS

Female connectors
(shown looking onto maiting face)

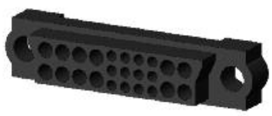


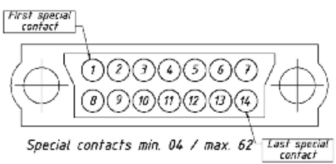
Mixed layout max. configuration depends on the LF contacts number

Male connectors
(shown looking onto maiting face)

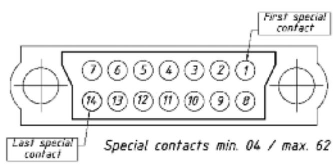


Mixed layout max. configuration depends on the LF contacts number

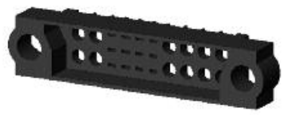




Special contacts min. 04 / max. 62

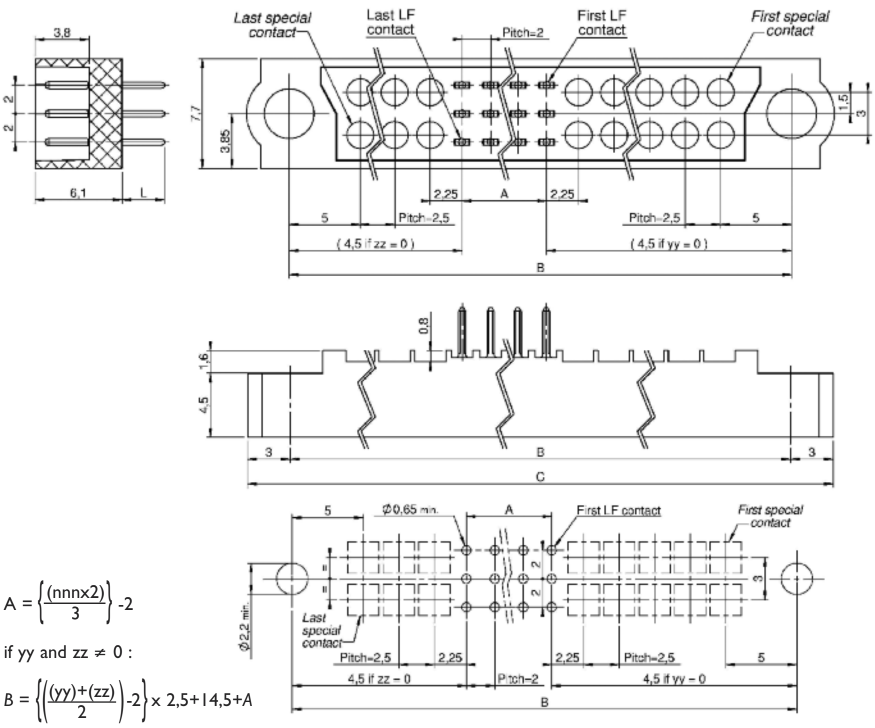


Special contacts min. 04 / max. 62



CMM 340
Male mixed-layout

STRAIGHT PCB



Part numbering :

3 4 1 _ n n n _ _ - y y z z - _ _ _ _ _ _ _

- Number of contacts LF pin 1 side
- Number of contacts opposite side LF pin 1
- Type : Y-YL
- See Fixing on pages 69 to 74 "Fxx" without fixing
- HF or HP P/N refer to page 95

nnn = number of LF contacts

Type	L
Y	3
YL	4,5

$$A = \left\{\frac{(nnnx2)}{3}\right\} -2$$

if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} \times 2{,}5+14{,}5+A$$

if yy or zz = 0 :

$$B = \left\{\left(\frac{(yy) \text{ or } (zz)}{2}\right)-1\right\} \times 2{,}5+11{,}75+A$$

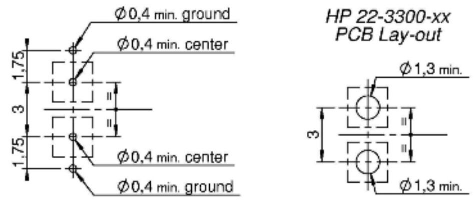
B max. = 87

C = B + 6

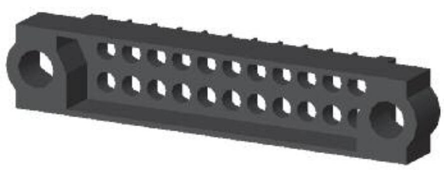
Pattern for special contact :

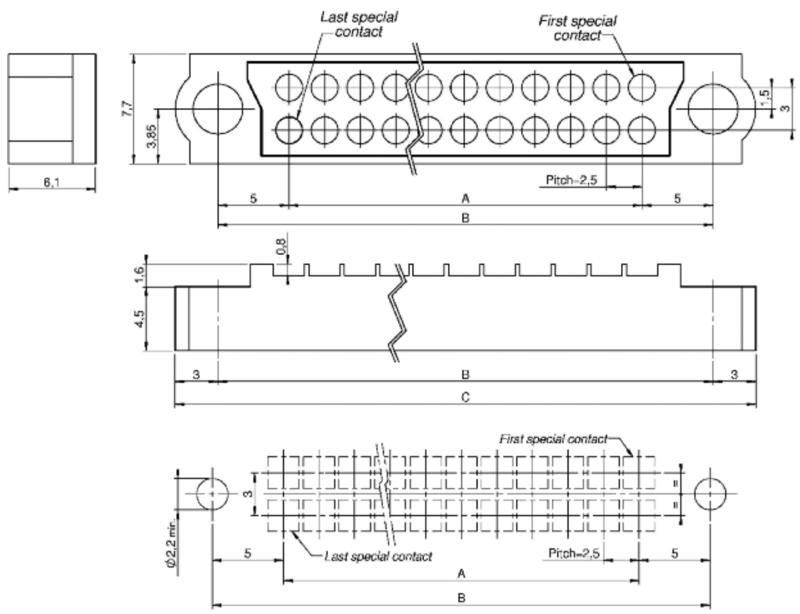
HF 22-1300-xx PCB Lay-out

HP 22-3300-xx PCB Lay-out



STRAIGHT PCB FOR HP/HF CONTACTS ONLY





Part numbering :

3 4 1 D 0 0 0 _ _ - 0 0 z z - _ _ _ _ _ _ _

- Number of HF or HP contacts
- See Fixing on pages 69 to 74 "Fxx" without fixing
- HF or HP P/N refer to page 95

$$A = \left(\frac{(zzx2{,}5)}{2}\right)-2{,}5$$

B = A + 10

C = B + 6

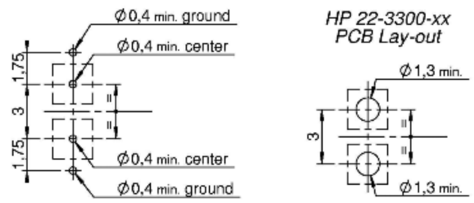
Special contacts min. : 04
max. : 64

Refer to dimension table on cover page

Pattern for special contact :

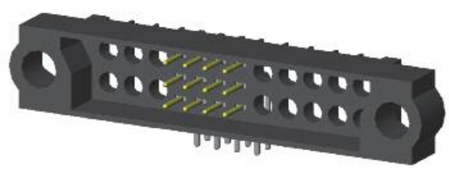
HF 22-1300-xx PCB Lay-out

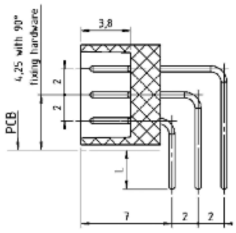
HP 22-3300-xx PCB Lay-out

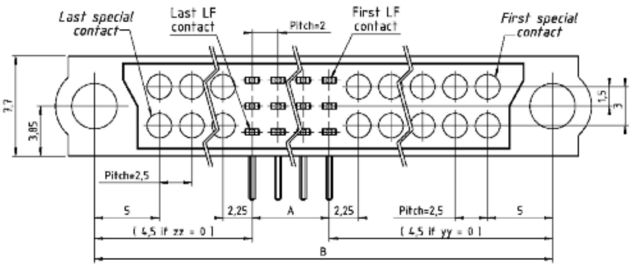


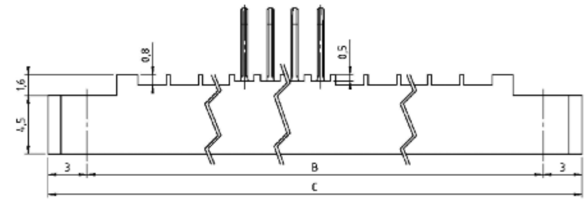
CMM 340
Male mixed-layout

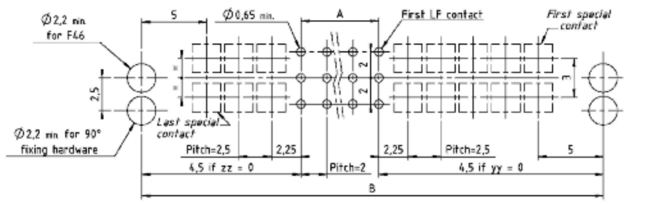
90° PCB











Part numbering :

Number of contacts LF pin 1 side		Number of contacts opposite side LF pin 1

3 4 1 L n n n _ - y y z z - _ _ _ _ _ _ _

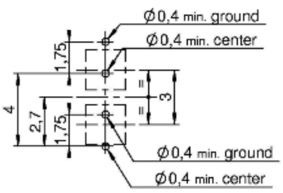
Type :V-VL	See Fixing on pages 69 to 74 "Fxx" without fixing	HF or HP P/N refer to page 95

nnn = number of LF contacts

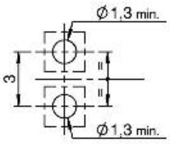
Type	L
V	3
VL	4,5

Pattern for special contact :

HF 22-1400-xx PCB Lay-out



HP 22-3400-xx PCB Lay-out



$$A = \left\{\frac{(nnnx2)}{3}\right\} - 2$$

if yy and zz ≠ 0 :

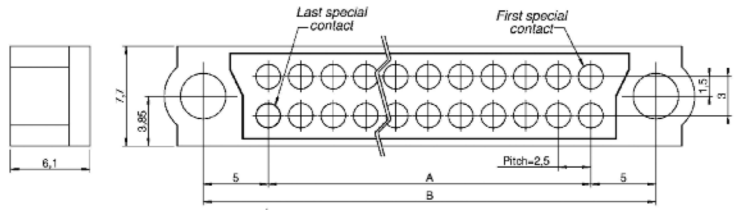
$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right) - 2\right\} \times 2{,}5 + 14{,}5 + A$$

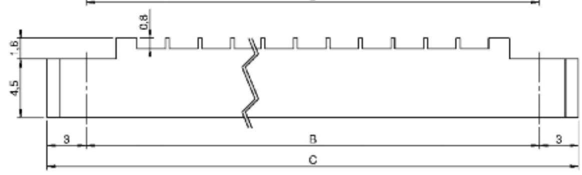
if yy or zz = 0 :

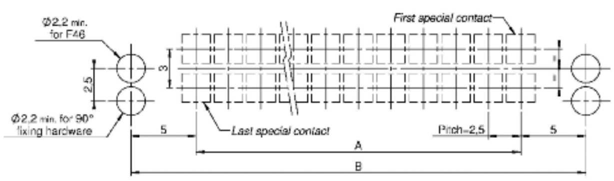
$$B = \left\{\left(\frac{(yy)_{or}(zz)}{2}\right) - 1\right\} \times 2{,}5 + 11{,}75 + A$$

B max. = 87
C = B + 6

90° PCB FOR HP/HF CONTACTS ONLY







Part numbering :

Number of HF or HP contacts

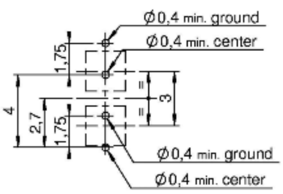
3 4 1 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

See Fixing on pages 69 to 74 "Fxx" without fixing	HF or HP P/N refer to page 95

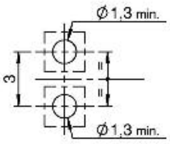
Special contacts min. : 04
max. : 64

Pattern for special contact :

HF 22-1400-xx PCB Lay-out



HP 22-3400-xx PCB Lay-out



$$A = \left(\frac{(zzx2{,}5)}{2}\right) - 2{,}5$$

B = A + 10
C = B + 6

Refer to dimension table on cover page

CMM 340
Male mixed-layout

CRIMP

Part numbering :

Number of contacts LF pin 1 side

Number of contacts opposite side LF pin 1

3 4 1 n n n ▢ ▢ - y y z z - ▢ ▢ ▢ ▢ ▢ ▢ ▢

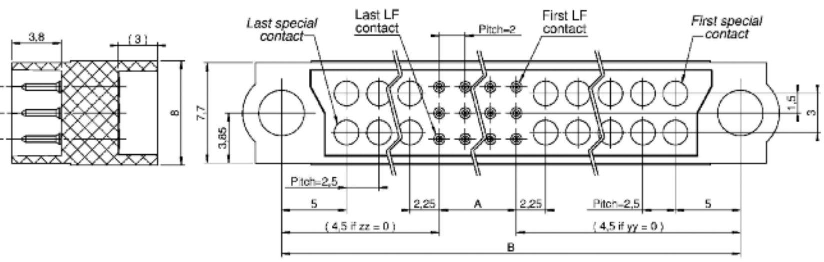
Type : S-C

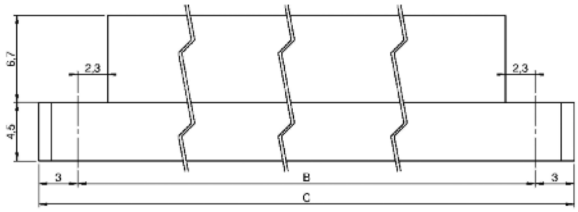
See Fixing on pages 69 to 74 "Fxx" without fixing

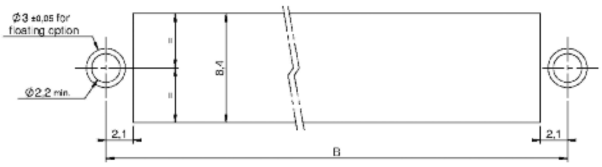
HF or HP P/N refer to page 95

nnn = number of LF contacts

Type	Gauge
S	24-28
C	22







$A = \left\{\frac{(nnnx2)}{3}\right\} -2$

if yy and zz ≠ 0 :

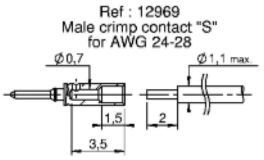
$B = \left\{\left(\frac{(yy)+(zz)}{2}\right) -2\right\} x\ 2{,}5+14{,}5+A$

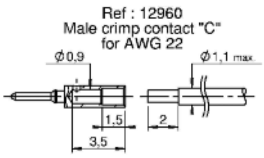
if yy or zz = 0 :

$B = \left\{\left(\frac{(yy) \text{or} (zz)}{2}\right) -1\right\} x\ 2{,}5+11{,}75+A$

B max. = 87

C = B + 6





CRIMP FOR HP/HF CONTACTS ONLY

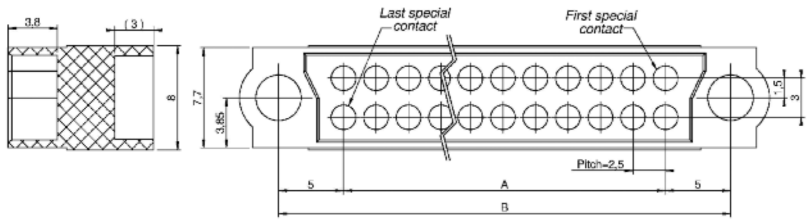
Part numbering :

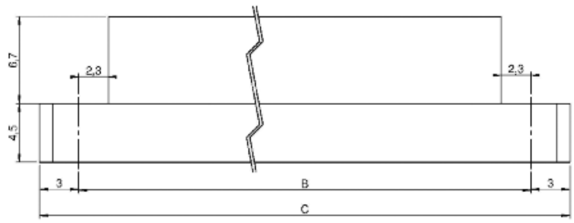
Number of HF or HP contacts

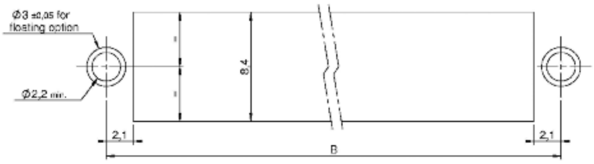
3 4 1 E 0 0 0 ▢ ▢ - 0 0 z z - ▢ ▢ ▢ ▢ ▢ ▢ ▢

See Fixing on pages 69 to 74 "Fxx" without fixing

HF or HP P/N refer to page 95







$A = \left(\frac{(zzx2{,}5)}{2}\right)-2{,}5$

B = A + 10

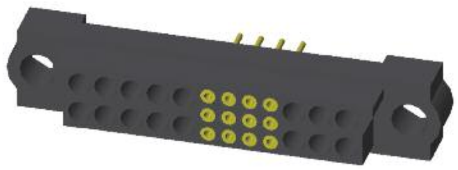
C = B + 6

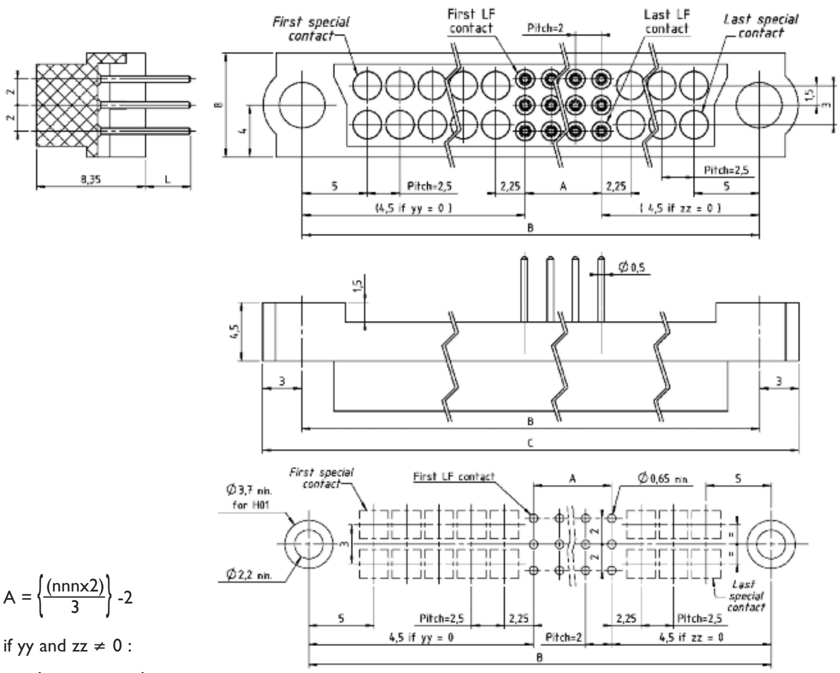
Special contacts min. : 04
max. : 64

Refer to dimension table on cover page

CMM 340
Female mixed-layout

STRAIGHT PCB





Part numbering :

Number of contacts LF pin 1 side	Number of contacts opposite side LF pin 1

3 4 2 _ n n n _ - y y z z - _ _ _ _ _ _ _

- Type : Y-YL
- See Fixing on pages 69 to 74 "Mxx" without fixing
- HF or HP P/N refer to page 95

nnn = number of LF contacts

Type	L
Y	3
YL	4,5

$$A = \left\{\frac{(nnn x 2)}{3}\right\} - 2$$

if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right) - 2\right\} \times 2{,}5 + 14{,}5 + A$$

if yy or zz = 0 :

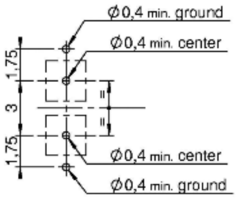
$$B = \left\{\left(\frac{(yy) \text{ or } (zz)}{2}\right) - 1\right\} \times 2{,}5 + 11{,}75 + A$$

B max. = 87

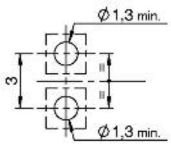
C = B + 6

Pattern for special contact :

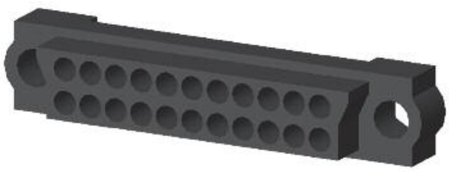
HF 22-2300-xx PCB Lay-out

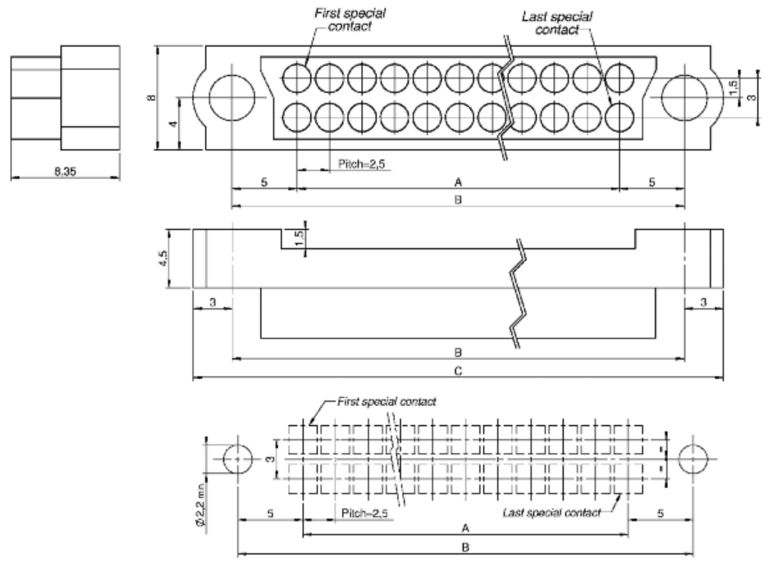


HP 22-4300-xx PCB Lay-out



STRAIGHT PCB FOR HP/HF CONTACTS ONLY





Special contacts min. : 04

max. : 64

Part numbering :

Number of HF or HP contacts

3 4 2 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

- See Fixing on pages 69 to 74 "Mxx" without fixing
- HF or HP P/N refer to page 95

$$A = \left(\frac{(zz x 2{,}5)}{2}\right) - 2{,}5$$

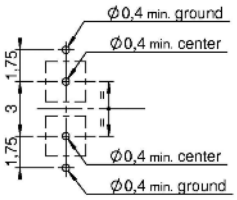
B = A + 10

C = B + 6

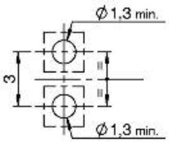
Refer to dimension table on cover page

Pattern for special contact :

HF 22-2300-xx PCB Lay-out

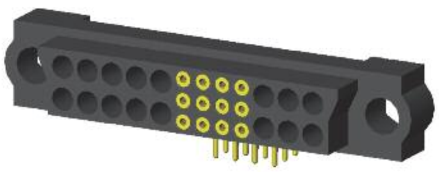


HP 22-4300-xx PCB Lay-out



CMM 340
Female mixed-layout

90° PCB



Part numbering :

Number of contacts LF pin 1 side — Number of contacts opposite side LF pin 1

3 4 2 n n n _ - y y z z - _ _ _ _ _ _ _

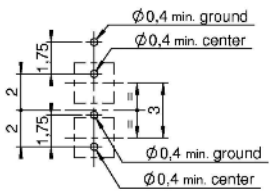
Type :V-VL — See Fixing on pages 69 to 74 "Mxx" without fixing — HF or HP P/N refer to page 95

nnn = number of LF contacts

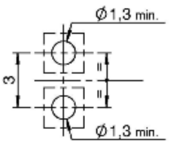
Type	L
V	3
VL	4,5

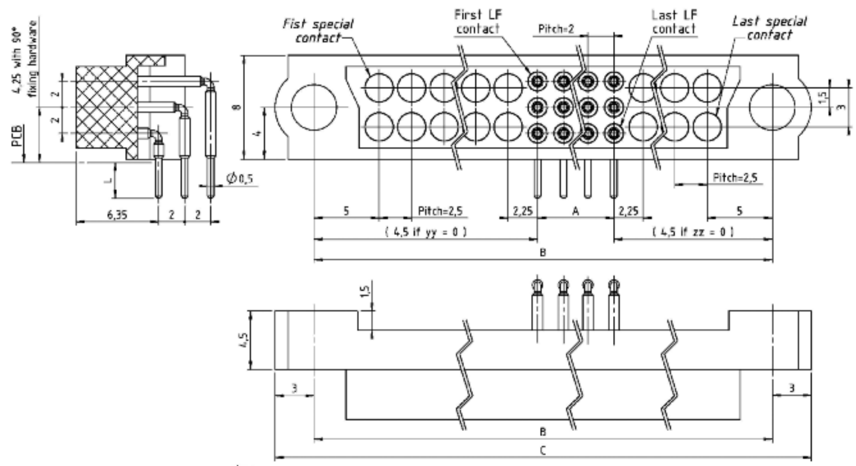
Pattern for special contact :

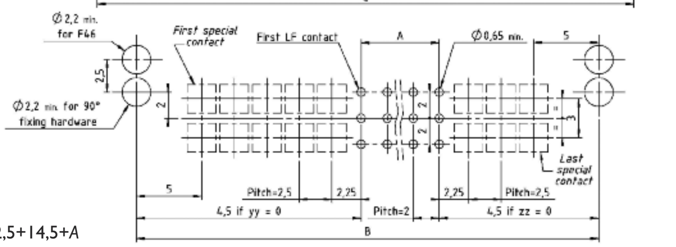
HF 22-2400-xx PCB Lay-out



HP 22-4400-xx PCB Lay-out







$$A = \left\{\frac{(nnnx2)}{3}\right\} -2$$

if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} \times 2{,}5+14{,}5+A$$

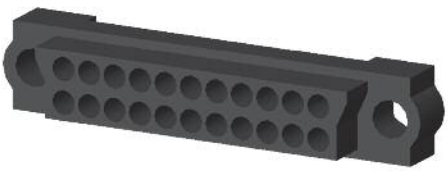
if yy or zz = 0 :

$$B = \left\{\left(\frac{(yy)\text{or}(zz)}{2}\right)-1\right\} \times 2{,}5+11{,}75+A$$

B max. = 87

C = B + 6

90° PCB FOR HP/HF CONTACTS ONLY



Part numbering :

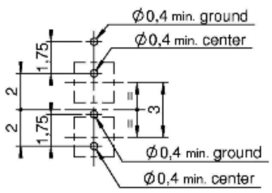
Number of HF or HP contacts

3 4 2 D 0 0 0 _ - 0 0 z z - _ _ _ _ _ _ _

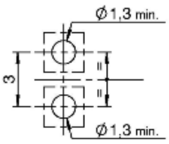
See Fixing on pages 69 to 74 "Mxx" without fixing — HF or HP P/N refer to page 95

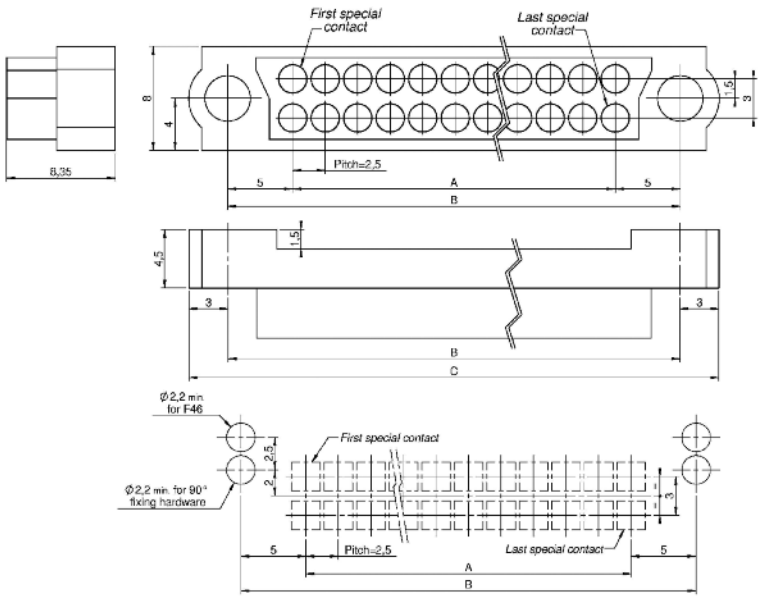
Pattern for special contact :

HF 22-2400-xx PCB Lay-out



HP 22-4400-xx PCB Lay-out





$$A = \left(\frac{(zzx2{,}5)}{2}\right)-2{,}5$$

B = A + 10

C = B + 6

Special contacts min. : 04

max. : 64

Refer to dimension table on cover page

CMM 340
Female mixed-layout

CRIMP

Part numbering :

Number of contacts LF pin 1 side — Number of contacts opposite side LF pin 1

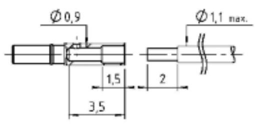
342 nnn ☐ - yyzz - ☐☐☐☐☐☐☐

Type : S-C — See Fixing on pages 69 to 74 "Mxx" without fixing — HF or HP P/N refer to page 95

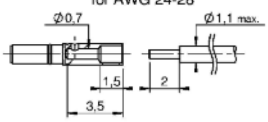
nnn = number of LF contacts

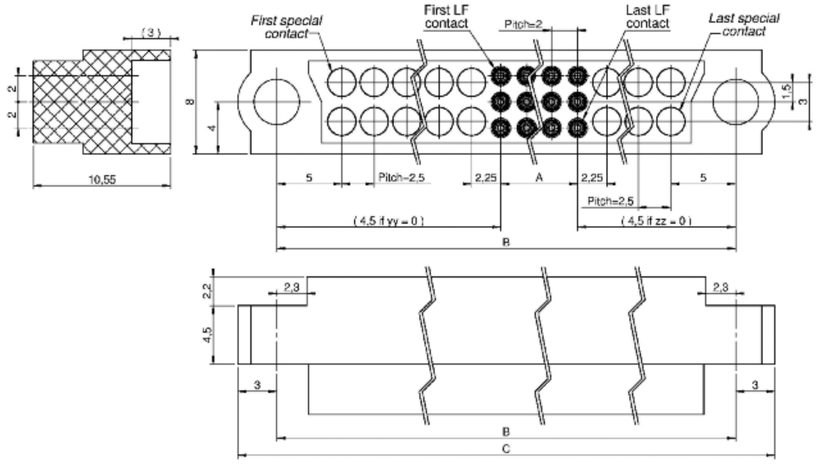
Type	Gauge
S	24-28
C	22

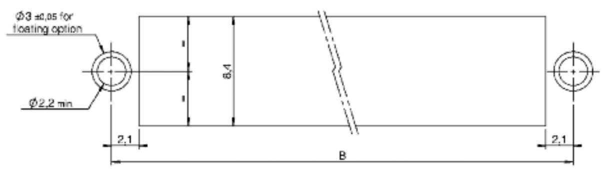
Ref : C13064-P
Female crimp contact "C"
for AWG 22 cable



Ref : C12468
Female crimp contact "S"
for AWG 24-28







$$A = \left\{\frac{(nnnx2)}{3}\right\} -2$$

if yy and zz ≠ 0 :

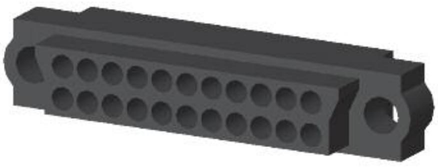
$$B = \left\{\left[\frac{(yy)+(zz)}{2}\right]-2\right\} x\ 2,5+14,5+A$$

if yy or zz = 0 :

$$B = \left\{\left[\frac{(yy)\text{ or }(zz)}{2}\right]-1\right\} x\ 2,5+11,75+A$$

B max. = 87
C = B + 6

CRIMP FOR HP/HF CONTACTS ONLY

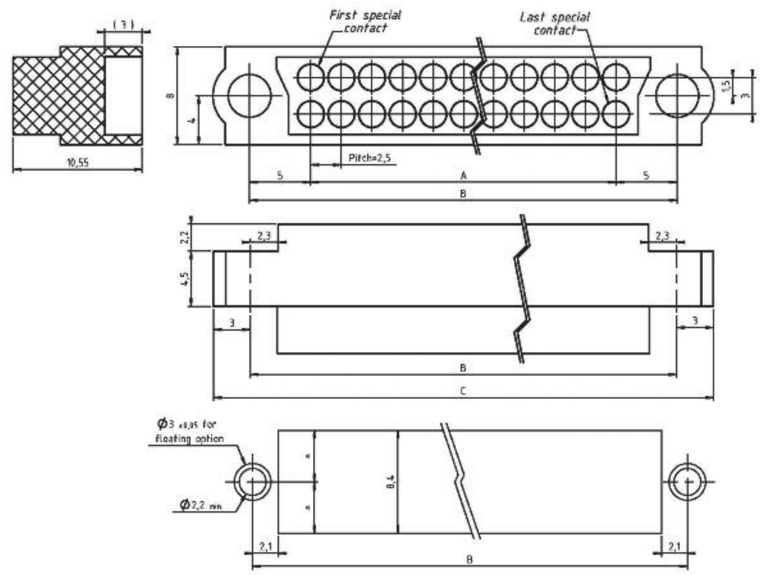


Part numbering :

Number of HF or HP contacts

342E000 ☐ - 00zz - ☐☐☐☐☐☐☐

See Fixing on pages 69 to 74 "Mxx" without fixing — HF or HP P/N refer to page 95



$$A = \left(\frac{(zzx2,5)}{2}\right)-2,5$$

B = A + 10
C = B + 6

Special contacts min. : 04
max. : 64

Refer to dimension table on cover page

Fixing hardware for CMM SERIES 320/340

P X X X X

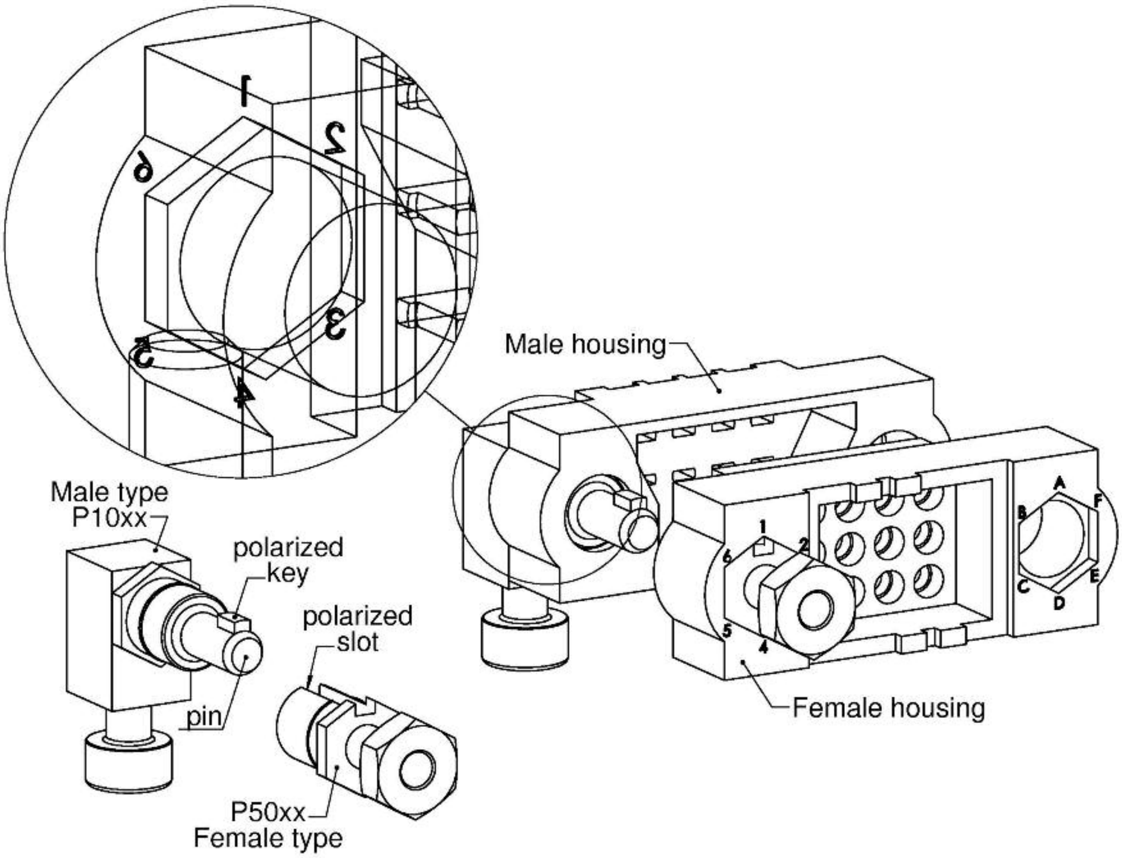
Male : 10 to 49
Female : 50 to 99

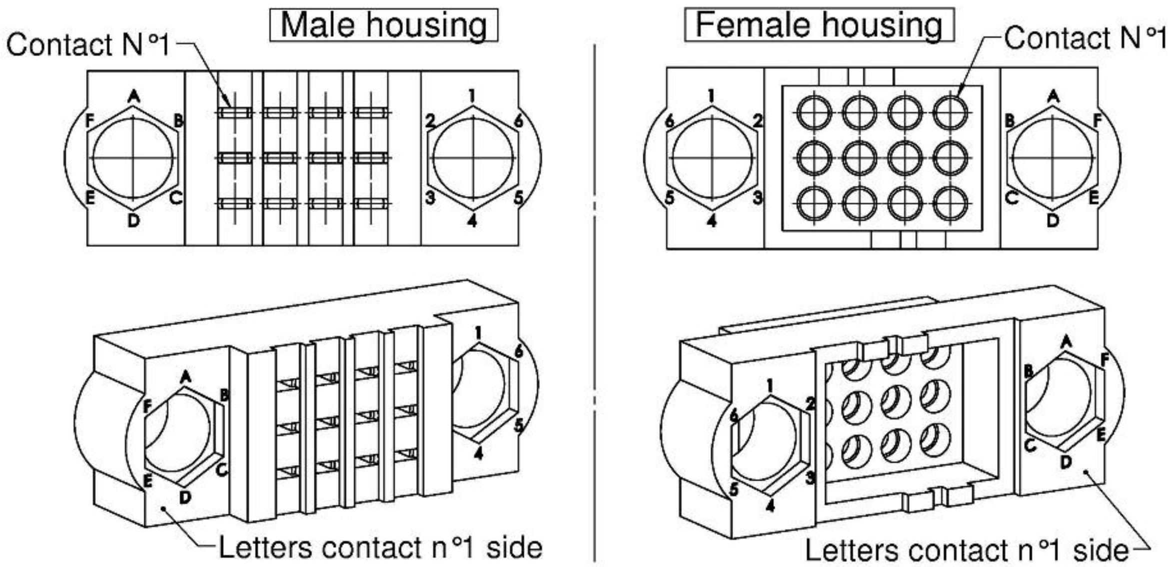
Letter code : A to F

Number code : 1 to 6

Letter coding : idem for male and female
Number coding : idem for male and female

Example : P10A1 mounting with P50A1

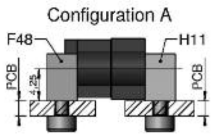




Fixing hardware for CMM 320/340

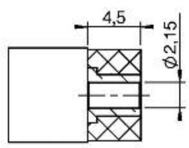
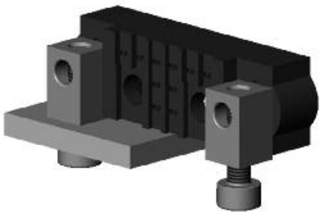
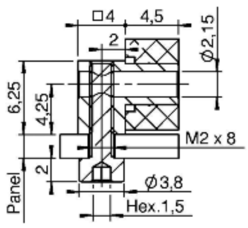
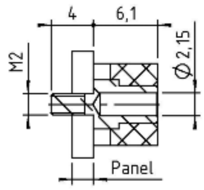
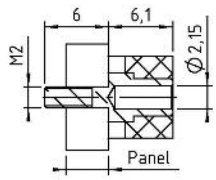
RACK INTERCONNECTION

				Male connectors CMM series 320 & 340 rack															
	Type of contact in connector			PCB Contacts										Contacts on cable					
	Type of PCB mount			Straight								90°		Straight		90°		Floating	No fixing on PCB
		PCB thickness (mm)		0,8 min. 2 max.		1,5 min. 4 max.		0,8 min. 2 max.		1,5 min. 4 max.		4 max.		0,8 min. 2 max.	1,5 min. 4 max.	4 max.			
Female connectors serie 320 & 340 rack			Fixing	M38	M38H	M36	M36H	F58	F58H	F59	F59H	F48	H11	M35	M39	F48	H11	M3xx	F40
PCB Contacts	Straight	0,8 min. 2 max.	M35					OK	OK	OK	OK	OK				OK			OK
PCB Contacts	Straight	0,8 min. 2 max.	M35H					OK	OK	OK	OK	OK				OK			OK
PCB Contacts	Straight	1,5 min. 4 max.	M39					OK	OK	OK	OK	OK				OK			OK
PCB Contacts	Straight	1,5 min. 4 max.	M39H					OK	OK	OK	OK	OK				OK			OK
PCB Contacts	90°	4 max.	H11					OK	OK	OK	OK	A				A			OK
PCB Contacts	90°	4 max.	F48	OK	OK	OK	OK						A	OK	OK		A	OK	
PCB Contacts	No fixing on PCB		F40	OK	OK	OK	OK						OK	OK	OK		OK	OK	
Contacts on cable	Straight	0,8 min. 2 max.	M35					OK	OK	OK	OK	OK				OK			OK
Contacts on cable	Straight	1,5 min. 4 max.	M39					OK	OK	OK	OK	OK				OK			OK
Contacts on cable	90°	4 max.	H11					OK	OK	OK	OK	A				A			OK
Contacts on cable	90°	4 max.	F48	OK	OK	OK	OK						A	OK	OK		A	OK	
Contacts on cable	Floating		M3xx					OK	OK	OK	OK	OK				OK			OK
Contacts on cable	No fixing on PCB		F40	OK	OK	OK	OK						OK	OK	OK		OK	OK	



Recommended Torque : 0,2 N/m

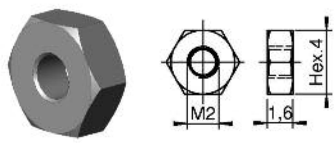
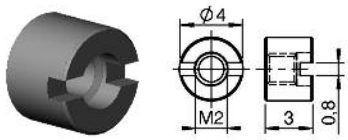
A Card extension

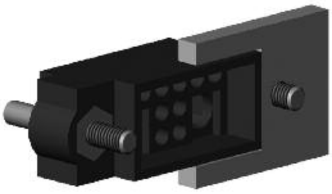
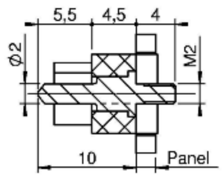
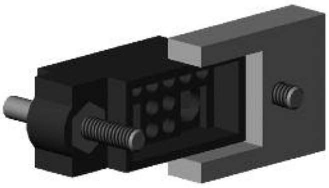
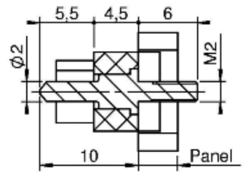
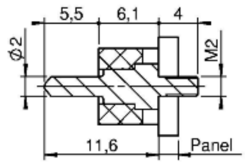
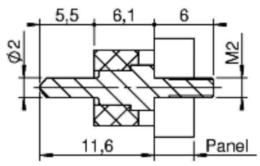
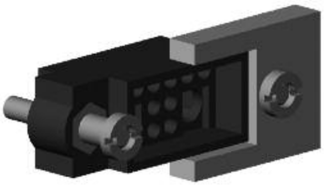
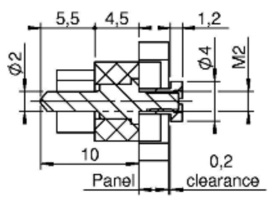
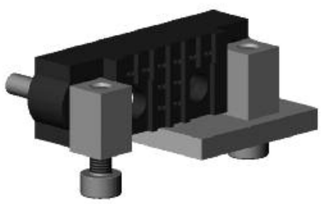
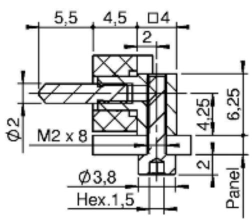
Reference	Assembly on PCB	Overall dimensions	Recommendation
F40	**Straight on PCB** 		**F40 :** CMM female : **Y-YL-S-C-E** (D : straight) CMM male : **S-C-E**
F48	**90° on PCB 4 max.** 		**F48 :** CMM female : **V-VL-S-C-E** (D : 90°) CMM male : **V-VL-R-S-C-E** (D : 90°)
F58  **F58H** 	**Straight on PCB 0,8 min / 2 max** 		**F58 :** CMM male : **Y** (D : straight) **F58H :** CMM male : **Y** (D : straight)
F59  **F59H** 	**Straight on PCB 1,5 min / 4 max** 		**F59 :** CMM male : **YL** (D : straight) **F59H :** CMM male : **YL** (D : straight)

Make it a habit! Use easy & automatic configurators for CMM micro-connectors single part and mating-half construction

Fixing hardware for CMM 320/340

RACK INTERCONNECTION

Hexagonal nut	Standard nut
	

Reference	Assembly on PCB	Overall dimensions	Recommendation
M35  **M35H** 	**Straight on PCB 0,8 min / 2 max** 		**M35 :** CMM female : **Y-S-C** (D-E : straight) CMM male : **S-C** (E : straight) **M35H :** CMM female : **Y** (D : straight)
M39  **M39H** 	**Straight on PCB 1,5 min / 4 max** 		**M39 :** CMM female : **YL-S-C** (D-E : straight) CMM male : **S-C** (E : straight) **M39H :** CMM female : **YL** (D : straight)
M38  **M38H** 	**Straight on PCB 0,8 min / 2 max** 		**M38 :** CMM male : **Y** (D : straight) **M38H :** CMM male : **Y** (D : straight)
M36  **M36H** 	**Straight on PCB 1,5 min / 4 max** 		**M36 :** CMM male : **YL** (D : straight) **M36H :** CMM male : **YL** (D : straight)
M3xx **xx =** (PCB thickness + 0,2 mm) x 10 Example : for 3 mm PCB, the reference is **M332** (3 + 0,2) x 10 = 32 **xx =** 32	**Straight on PCB with floating option** 		**M3xx :** CMM female : **S-C** (E : straight) CMM male : **S-C** (E : straight)
H11	**90° on PCB 4 max.** 		**H11 :** CMM female : **V-VL-S-C-E** (D : 90°) CMM male : **V-VL-R-S-C-E** (D : 90°)

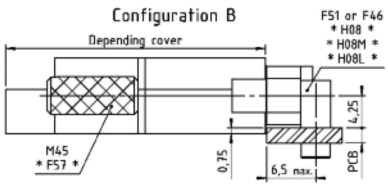
Fixing hardware for CMM 320/340

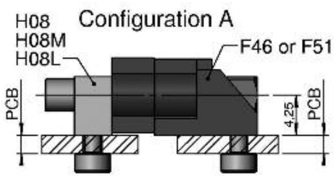
LOCKED INTERCONNECTION

Male Connectors CMM series 320 & 340 with locking

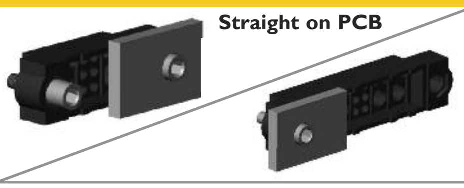
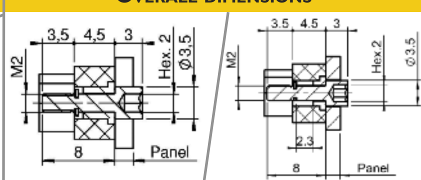
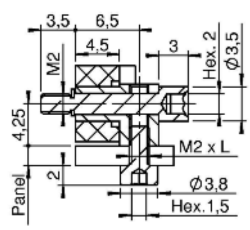
Female Connectors CMM series 320 & 340 with locking	Type of contact in connector	Type of PCB mount / PCB thickness (mm)	Fixing	PCB Contacts: Straight 0,8 min. 2 max.		Straight 1,5 min. 4 max.		Straight 4 max.		90° 1 min. 2 max.	90° 2 min. 3 max.	90° 3 min. 4 max.	Card edge with 30-1500-12 HF	No fixing on PCB		Contacts on cable: Straight 0,8 min. 2 max.	Straight 1,5 min. 4 max.	Straight 4 max.		90° 1 min. 2 max.	90° 2 min. 3 max.	90° 3 min. 4 max.	Floating fixing	No fixing on PCB		No fixing on PCB	With cover	With cover
				F42	F42H	F44	F44H	F46	F51	H08	H08M	H08L	F50	H01	H01C	F52	F45	F46	F51	H08	H08M	H08L	F4xx	H01	H01C	F41	F57	M45
PCB Contacts	Straight	0,8 min. 2 max.	F52							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
PCB Contacts	Straight	0,8 min. 2 max.	F52H							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
PCB Contacts	Straight	1,5 min. 4 max.	F45							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
PCB Contacts	Straight	1,5 min. 4 max.	F45H							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
PCB Contacts	90°	4 max.	F46							A	A	A		OK	OK					A	A	A		OK	OK			B
PCB Contacts	90°	4 max.	F51							A	A	A		OK	OK					A	A	A		OK	OK			B
PCB Contacts	90°	1 min. 2 max.	H08	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
PCB Contacts	90°	2 min. 3 max.	H08M	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
PCB Contacts	90°	3 min. 4 max.	H08L	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
PCB Contacts	No fixing on PCB		H01	OK	OK	OK	OK	OK	OK				OK			OK	OK	OK	OK				OK			OK	OK	
PCB Contacts	No fixing on PCB		H01C	OK	OK	OK	OK	OK	OK				OK			OK	OK	OK	OK				OK			OK	OK	
PCB Contacts	No fixing on PCB		F41							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
Contacts on cable	Straight	0,8 min. 2 max.	F52							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
Contacts on cable	Straight	1,5 min. 4 max.	F45							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
Contacts on cable	90°	4 max.	F46							A	A	A		OK	OK					A	A	A		OK	OK			B
Contacts on cable	90°	4 max.	F51							A	A	A		OK	OK					A	A	A		OK	OK			B
Contacts on cable	90°	1 min. 2 max.	H08	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
Contacts on cable	90°	2 min. 3 max.	H08M	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
Contacts on cable	90°	3 min. 4 max.	H08L	OK	OK	OK	OK	A	A							OK	OK	A	A				OK			OK	B	
Contacts on cable	Floating fixing		F4xx							OK	OK	OK		OK	OK					OK	OK	OK		OK	OK			OK
Contacts on cable	No fixing on PCB		H01	OK	OK	OK	OK	OK	OK				OK	OK	OK	OK	OK	OK	OK			OK		OK	OK	OK		
Contacts on cable	No fixing on PCB		H01C	OK	OK	OK	OK	OK	OK				OK	OK	OK	OK	OK	OK	OK			OK		OK	OK	OK		
Contacts on cable	No fixing on PCB		F41							OK	OK	OK								OK	OK	OK		OK				OK
Contacts on cable	With cover		F57							B	B	B		OK	OK					B	B	B		OK				OK
Contacts on cable	With cover		M45	OK	OK	OK	OK	B	B				OK			OK	OK	B	B				OK			OK	OK	

Make it a habit! Use easy & automatic configurators for CMM micro-connectors single part and mating-half construction





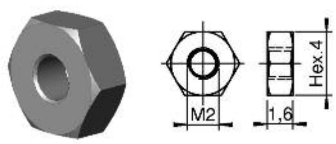
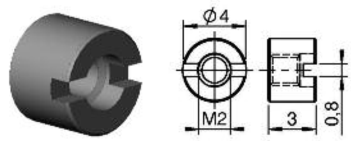
CMM 320/340 MALE AND FEMALE THREADED FIXING HARDWARE

Reference	Assembly on PCB	Overall dimensions	Recommendation
H01 / H01C	Straight on PCB 		**H01/H01C :** CMM female : **Y-YL-S-C-E** (D : straight) CMM male : **Y-YL-S-C-E** (D : straight)
H08 PCB : 1 min. / 2 max. **H08M PCB :** 2 min. / 3 max. **H08L PCB :** 3 min. / 4 max.	90° on PCB 		**H08/H08M/H08L :** CMM female : **V-VL-S-C-E** (D : 90°) CMM male : **V-VL-R-S-C-E** (D : 90°)

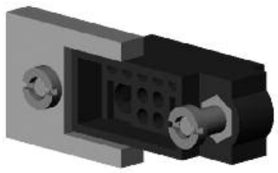
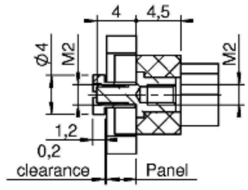
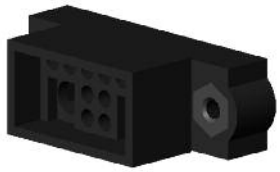
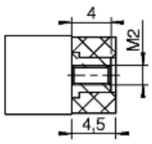
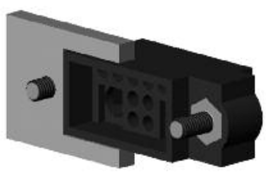
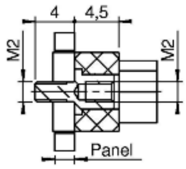
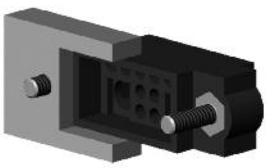
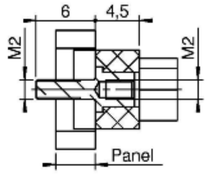
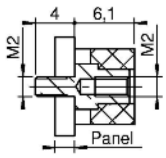
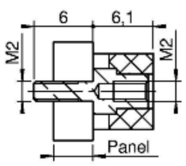
四 006-0ZZ-002

Fixing hardware for CMM 320/340

LOCKED INTERCONNECTION

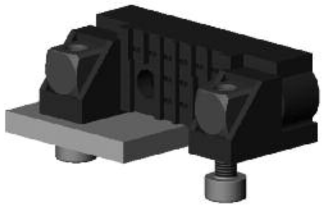
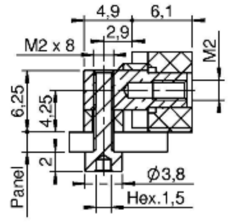
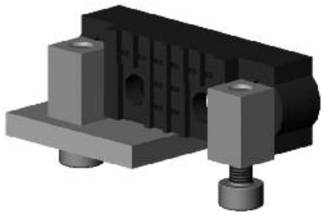
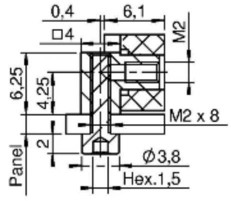
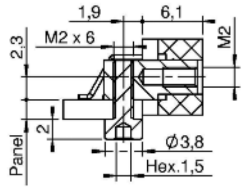
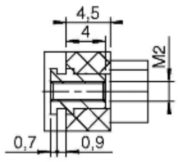
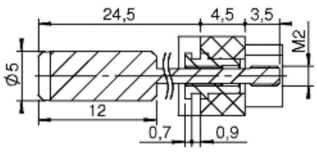
Hexagonal nut	Standard nut
	

Recommended Torque : 0,2 N/m

Reference	Assembly on PCB	Overall dimensions	Recommendation
F4XX **xx** = (PCB thickness + 0,2 mm) x 10 Example : for 3 mm PCB, the reference is F432 (3 + 0,2) x 10 = 32 **xx** = 32	**Straight on PCB floating option** 		**F4XX :** CMM female : **S-C** (E : straight) CMM male : **S-C** (E : straight)
F41	**Straight on PCB** 		**F41 :** CMM female : **Y-YL-S-C-E** (D : straight) CMM male : **S-C-E**
F52  **F52H** 	**Straight on PCB 0,8 min / 2 max** 		**F52 :** CMM female : **Y-S-C** (D-E : straight) CMM male : **S-C** (E : straight) **F52H :** CMM female : **Y** (D : straight)
F45  **F45H** 	**Straight on PCB 1,5 min / 4 max** 		**F45 :** CMM female : **YL-S-C** (D-E : straight) CMM male : **S-C** (E : straight) **F45H :** CMM female : **YL** (D : straight)
F42  **F42H** 	**Straight on PCB 0,8 min / 2 max** 		**F42 :** CMM male : **Y** (D : straight) **F42H :** CMM male : **Y** (D : straight)
F44  **F44H** 	**Straight on PCB 1,5 min / 4 max** 		**F44 :** CMM male : **YL** (D : straight) **F44H :** CMM male : **YL** (D : straight)

Fixing for CMM 320/340

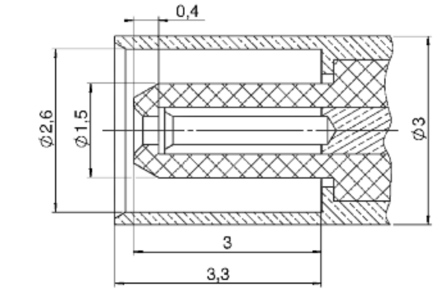
CMM 320/340 MALE AND FEMALE TAPPED FIXING HARDWARE

<table>
<tr><th>Reference</th><th>Assembly on PCB</th><th>Overall dimensions</th><th>Recommendation</th></tr>
<tr><td>F46</td><td>90° on PCB 4 max.
</td><td>
</td><td>F46 :
CMM female :
V-VL-S-C-E (D : 90°)
CMM male :
V-VL-R-S-C-E (D : 90°)</td></tr>
<tr><td>F51</td><td>90° on PCB 4 max.
</td><td>
</td><td>F51 :
CMM female :
V-VL-S-C-E (D : 90°)
CMM male :
V-VL-R-S-C-E (D : 90°)</td></tr>
<tr><td>F50</td><td>90° on PCB 4 max.
</td><td>
</td><td>F50 :
Card edge
LF contact or mixed</td></tr>
<tr><td>F57</td><td>Cover option only
</td><td>
</td><td>Male and female
S-C (E : straight)
</td></tr>
<tr><td>M45</td><td>Cover option only
</td><td>
</td><td>Male and female
S-C (E : straight)
</td></tr>
</table>

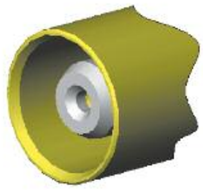
HF : High Frequency contacts series 30
HP : High Power contacts series 30

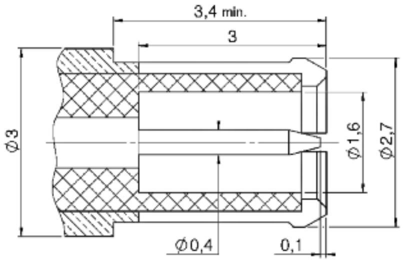
FOR CMM 220 AND 320

INSERTION

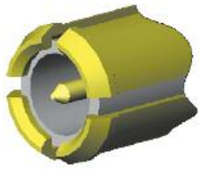


HF female contact insertion





HF male contact insertion



PART NUMBERING FOR PCB HF & HP SPECIAL CONTACTS

These two digits are linked to the connector. Do not use them inside a CMM part number when loaded.
All dash signs also disappear

Contact type :
3 = straight
4 = right angle
5 = SMT 90°
6 = SMT straight

Termination length
"CMM" = 3mm
"45" = 4.5mm
"12" = 3mm (Female CMM320)
"14" = 4.5mm (Female CMM320)
"…"

3 0 - _ _ 0 0 - _ _

Coaxmatic 30™
1 = male coax
2 = female coax
3 = high power male
4 = high power female

PART NUMBERING FOR HF & HP SPECIAL CONTACTS ON-CABLE

For HF contacts only Inner contact
Z = solder
S = crimp

For HF contacts only Shield
Z = solder
S = crimp

These two digits are linked to the connector. Do not use them inside a CMM part number when loaded.
All dash signs also disappear

Contact type :
3 = straight
4 = right angle

Use these 2 digits only with 1.2mm dia. cables mounted on a HF straight contact
Crimp shield type: 01 = refer to page 81
02 = refer to page 81

3 0 - _ _ _ _ - _ _ - 7 5 - _ _

Special contacts :
1 = male HF
2 = female HF
3 = male HP
4 = female HP

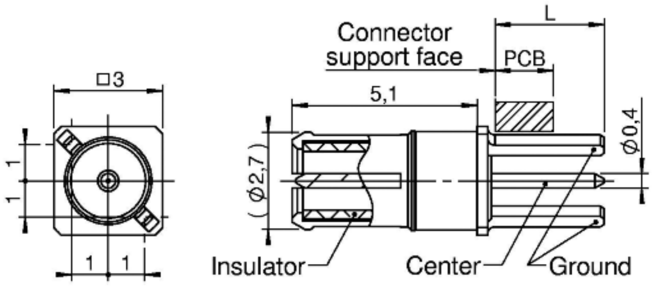
Double shield
DS

Use these 2 digits only with 75 Ohm cables

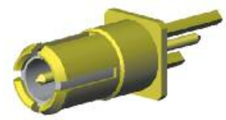
Contact termination:
10 = for HP 10A
15 = for HP 15A
20 = for HP 20A
12 = for HF cable 1.2mm
20 = for HF cable 2mm
24 = for HF cable 2.4mm
26 = for HF cable 2.6mm
47 = for HF cable type UT47
85 = for HF cable type UT85
"…"

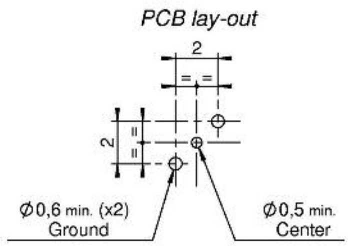
HF : High Frequency contact series 30

MALE STRAIGHT ON PCB P/N 30-1300-xx

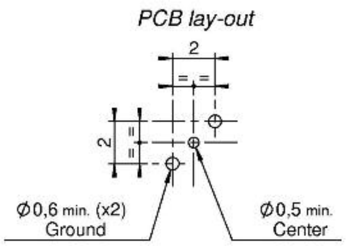


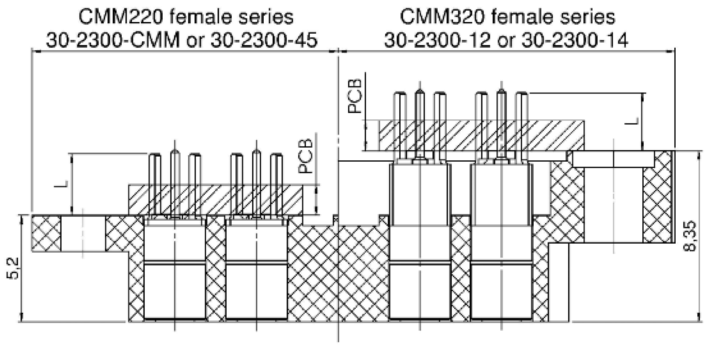
Loaded	Length L
1300CMM	3 mm
130045	4,5 mm

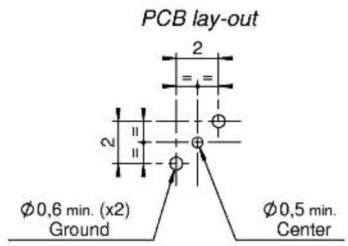


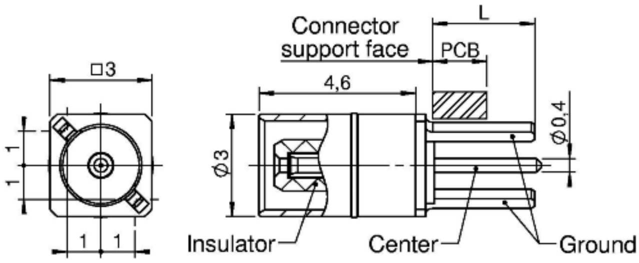


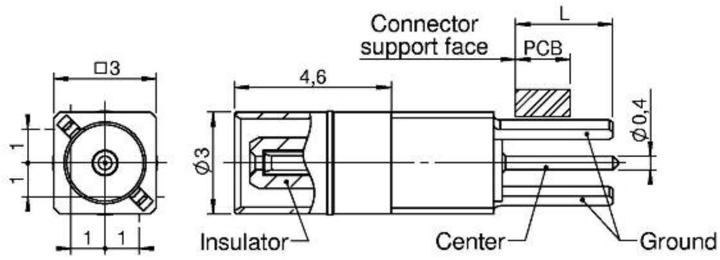
FEMALE STRAIGHT ON PCB P/N 30-2300-xx



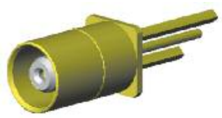




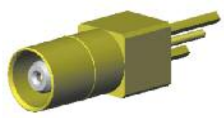




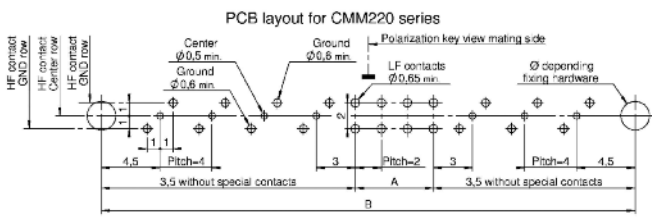
Loaded	Length L
2300CMM	3 mm
230045	4,5 mm



Loaded	Length L
230012	3 mm
230014	4,5 mm



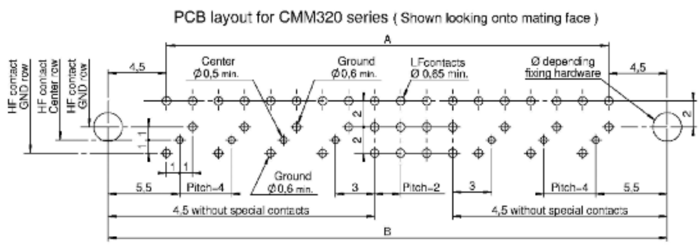
PCB LAYOUT 30-1300-xx & 30-2300-xx



A = nn - 2

B = {(yy + zz) x 4} + A + 7

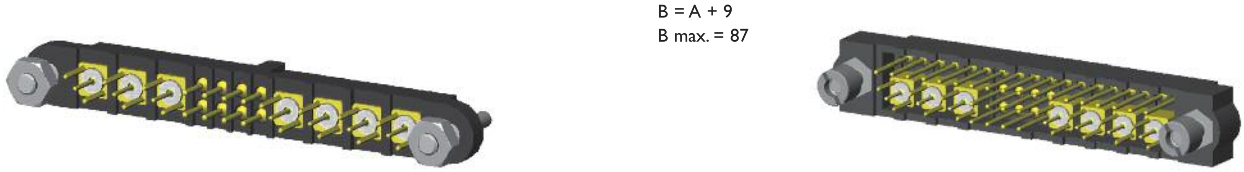
B max. = 65 mm



$$A = \left[\frac{\{(yy + zz) \times 4 + nn\} \times 2}{3} \right] - 2$$

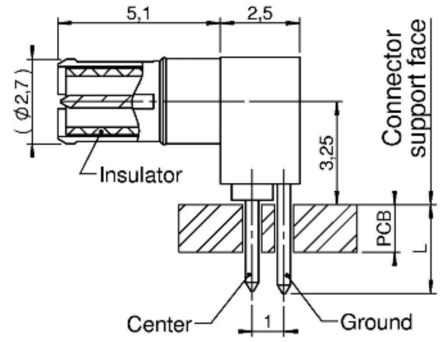
B = A + 9

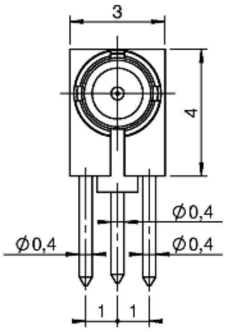
B max. = 87



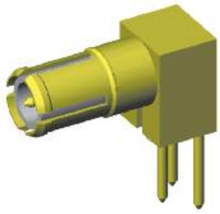
HF : High Frequency contact series 30

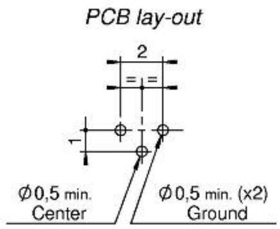
MALE 90° PCB P/N 30-1400-xx



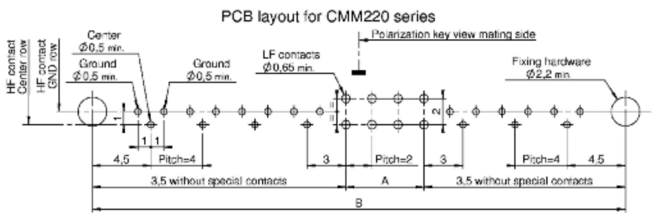


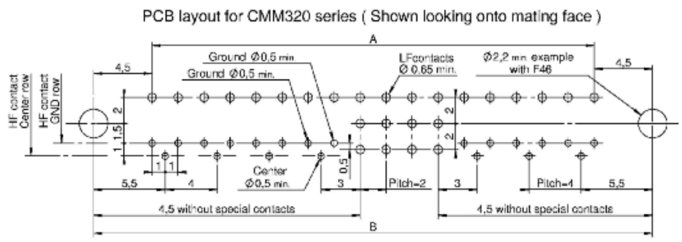
Loaded	Length L
1400CMM	3 mm
140045	4,5 mm



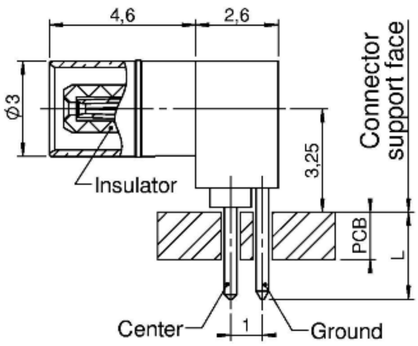


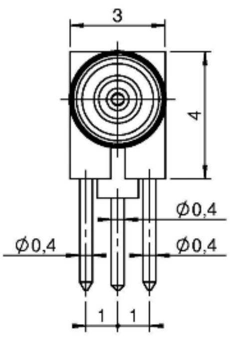
PCB LAYOUT 30-1400-xx



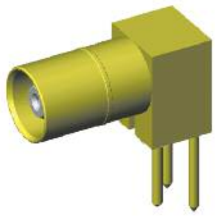


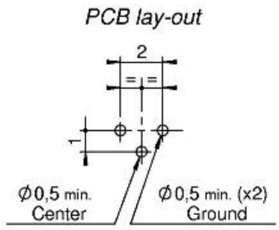
FEMALE 90° PCB P/N 30-2400-xx



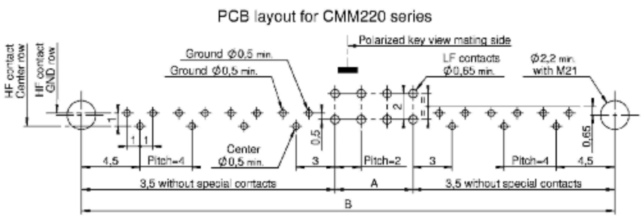


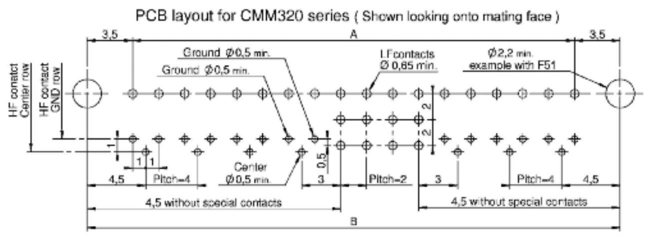
Loaded	Length L
2400CMM	3 mm
240045	4,5 mm





PCB LAYOUT 30-2400-xx





A = nn - 2

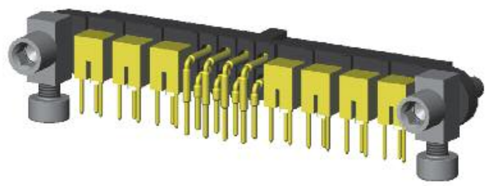
$B = \{(yy + zz) \times 4\} + A + 7$

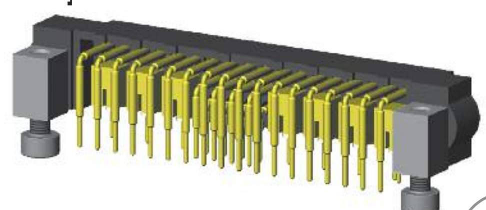
B max. = 65 mm

$$A = \left[\frac{\{(yy + zz) \times 4 + nn\} \times 2}{3} \right] - 2$$

B = A + 9

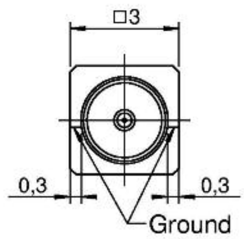
B max. = 87

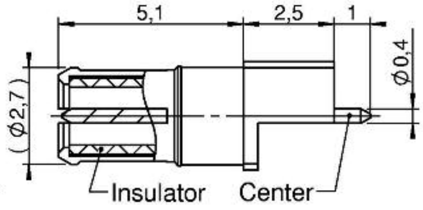


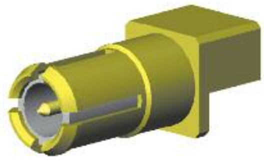


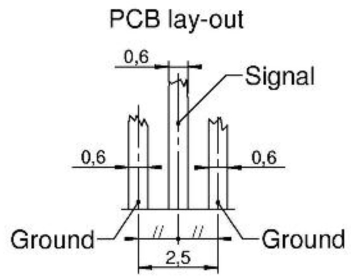
HF : High Frequency contact series 30

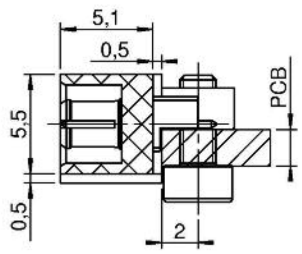
MALE 90° SMT FOR CMM 220 SERIES (WITHOUT CONTACTS) P/N 30-1500-CMM

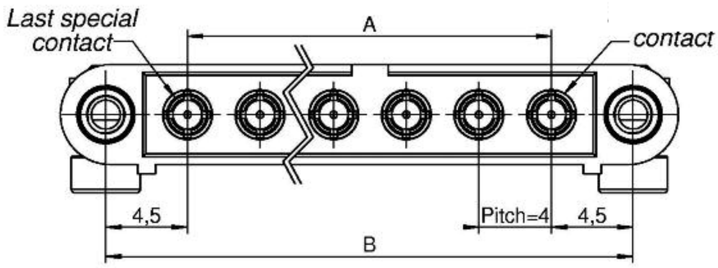


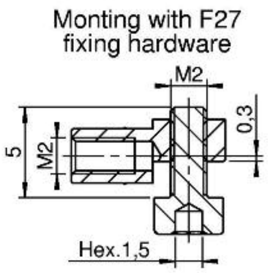


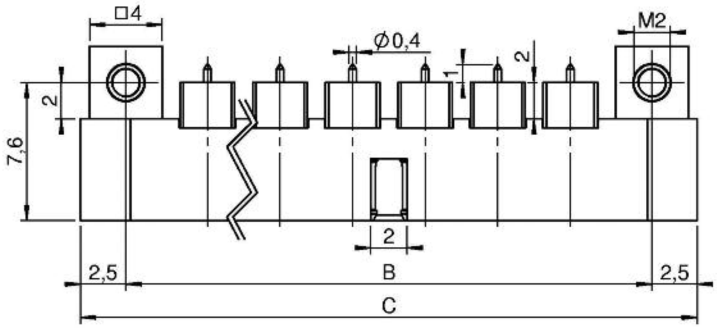




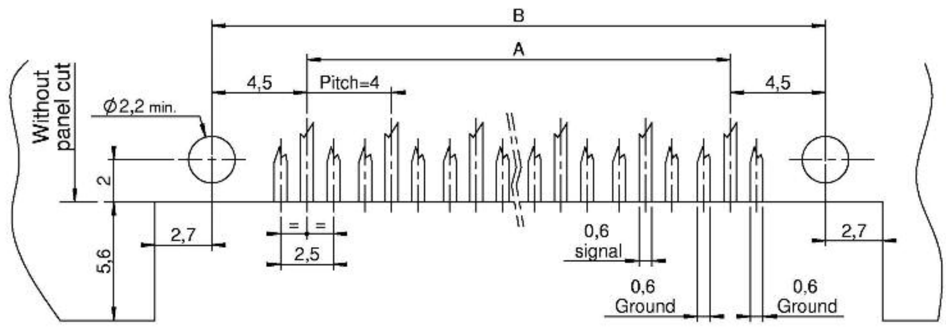


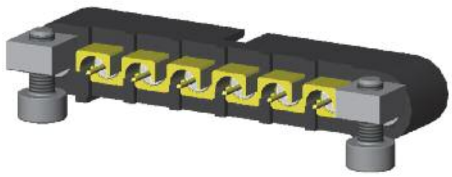






PCB LAYOUT 30-1500-CMM





A = (nn x 4) - 4
B = A + 9
C = B + 5

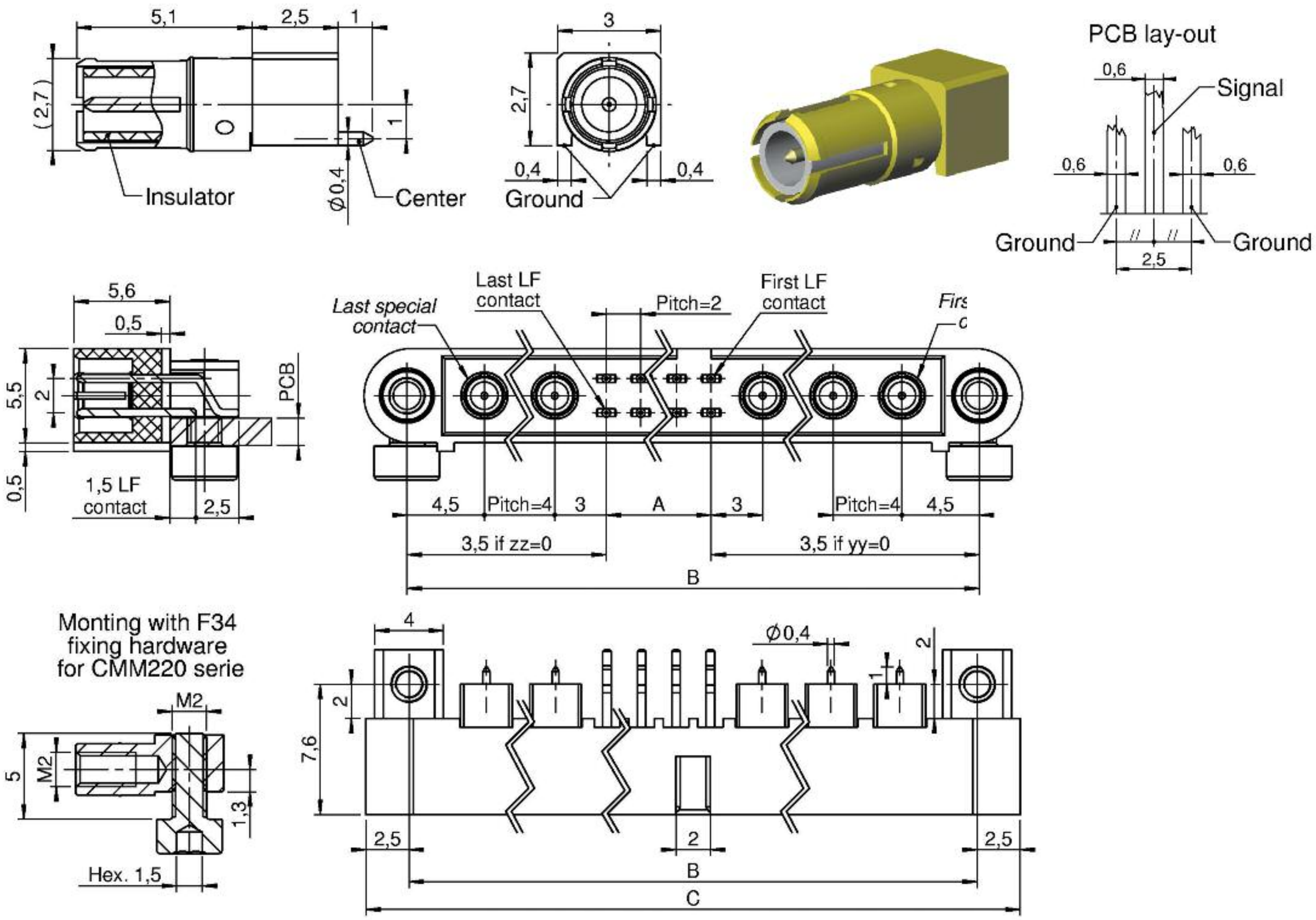
PART NUMBERING

Number of contacts

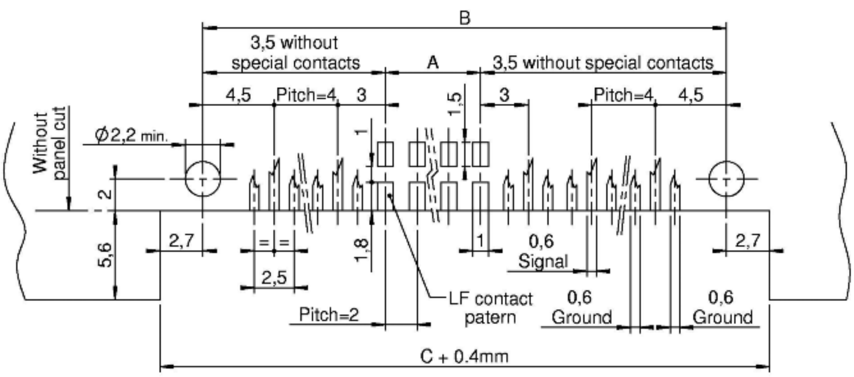
2 2 1 D 0 0 F27 - 0 0 z z - 1 5 0 0 C M M

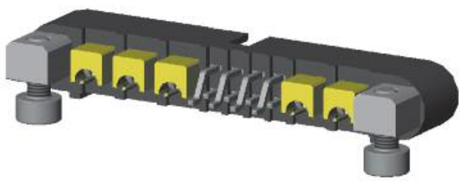
HF : High Frequency contact series 30

MALE 90° SMT FOR CMM 220 SERIES P/N 30-1500-12



PCB LAYOUT 30-1500-12





A = nn - 2
B = {(yy + zz) x 4} + A + 7
B max. = 65 mm
C = B + 5

PART NUMBERING

Number of contacts LF pin 1 side

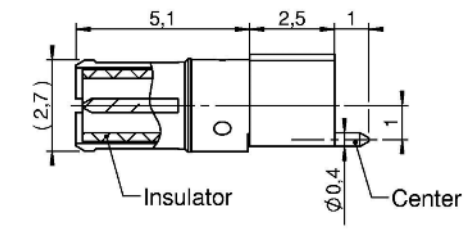
Number of contacts opposite side LF pin 1

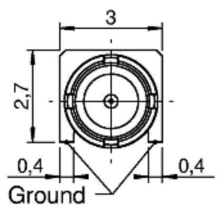
2 2 1 BR n n F34 - y y z z - 1 5 0 0 1 2

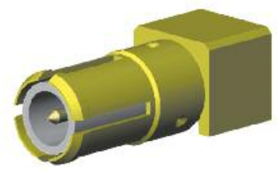
Number of LF contacts

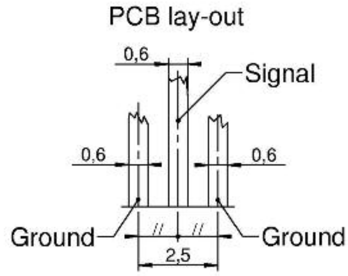
HF : High Frequency contact series 30

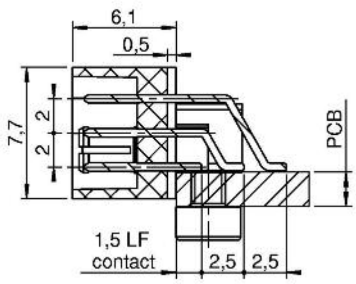
MALE 90° SMT FOR CMM 320 SERIES P/N 30-1500-12

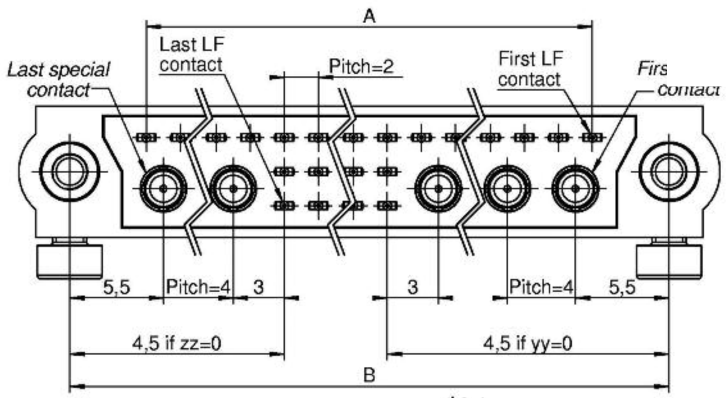


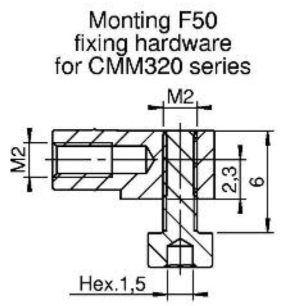


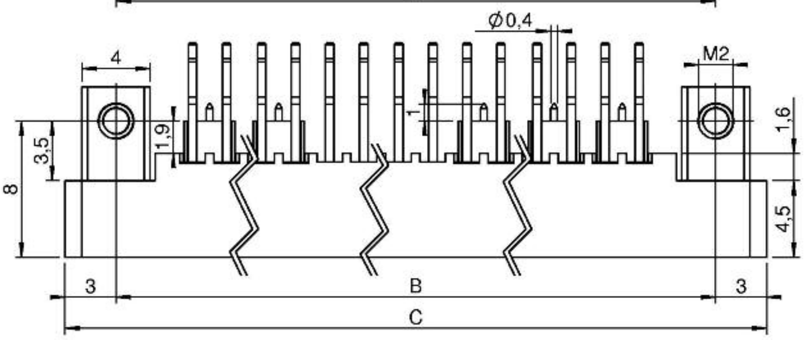




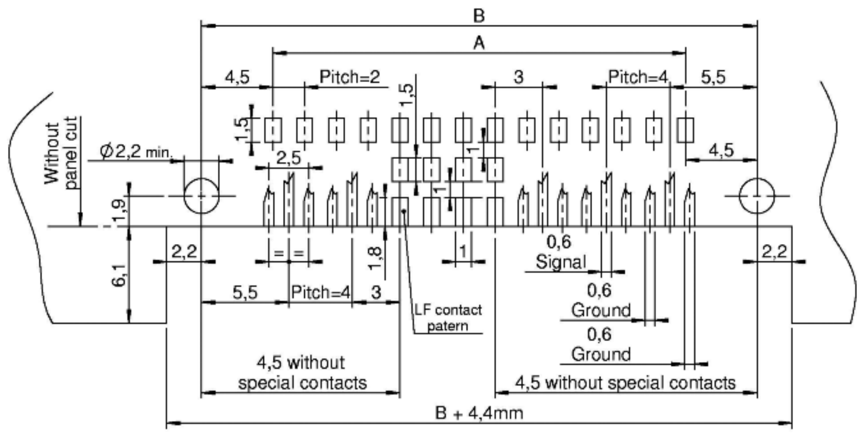








PCB LAYOUT 30-1500-CMM



$$A = \left[\frac{\{(yy+zz)\times 4+nn\}\times 2}{3}\right] - 2$$

B = A + 9

B max. = 87

C = A + 15

PART NUMBERING

Number of contacts LF pin 1 side

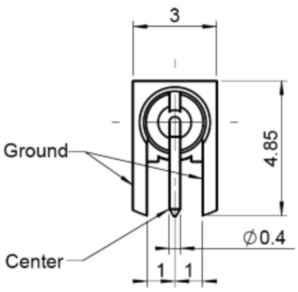
Number of contacts opposite side LF pin 1

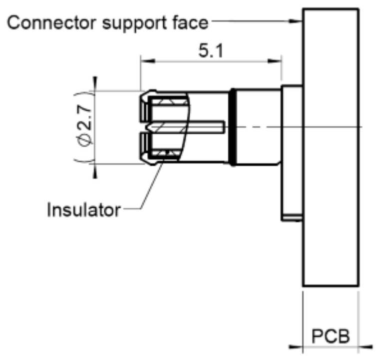
3 2 1 BR n n n F50 - y y z z - 1 5 0 0 1 2

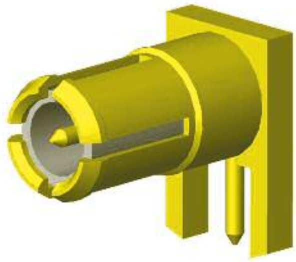
Number of LF contacts

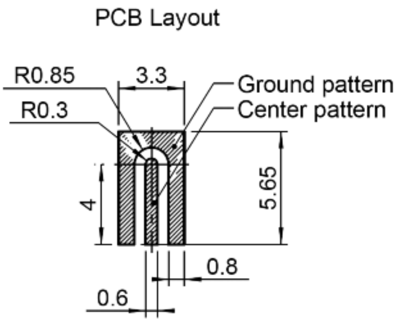
HF : High Frequency contact series 30

MALE STRAIGHT SMT FOR CMM 220 SERIES P/N 30-1600

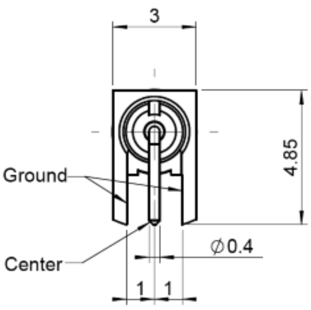


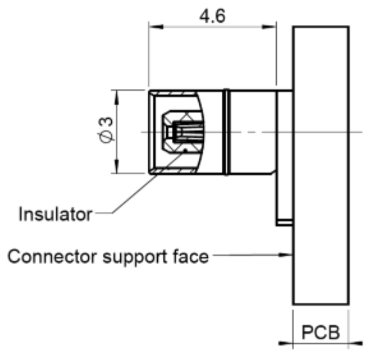


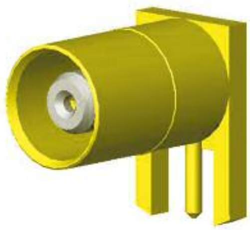


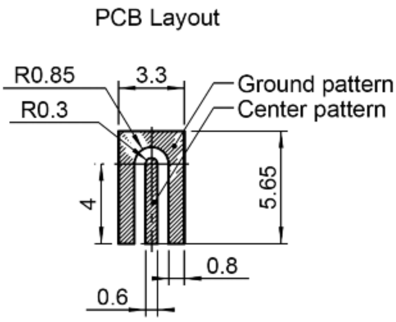


FEMALE STRAIGHT SMT FOR CMM 220 SERIES P/N 30-2600

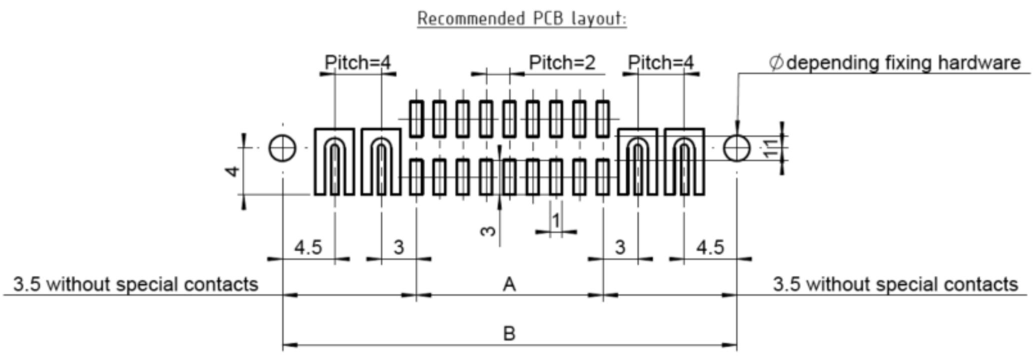




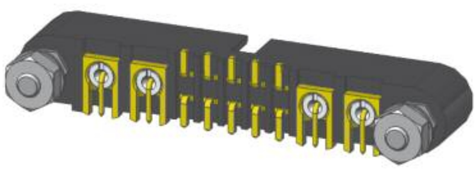




PCB LAYOUT 30-1600 & 30-2600

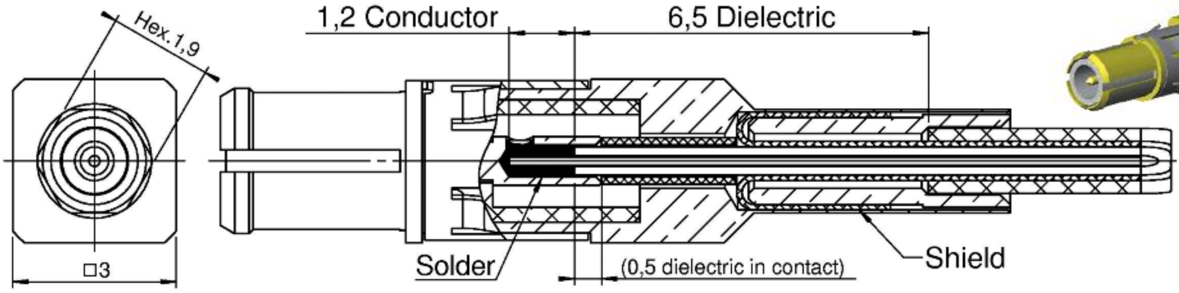


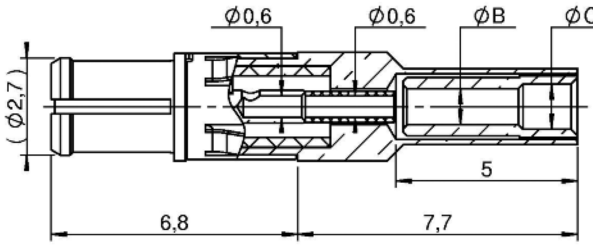
A=nn-2
B={(yy+zz)x4}+A+7

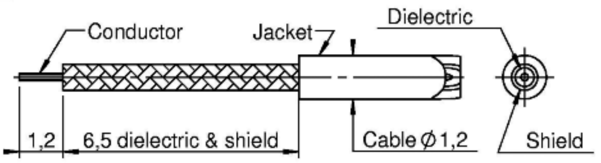


HF : High Frequency contact series 30

MALE STRAIGHT CRIMP ON CABLES Ø 1.2 P/N 30-1312-ZS

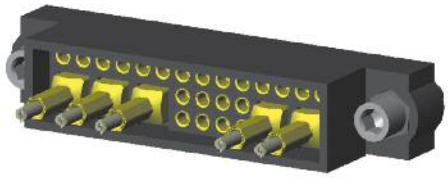




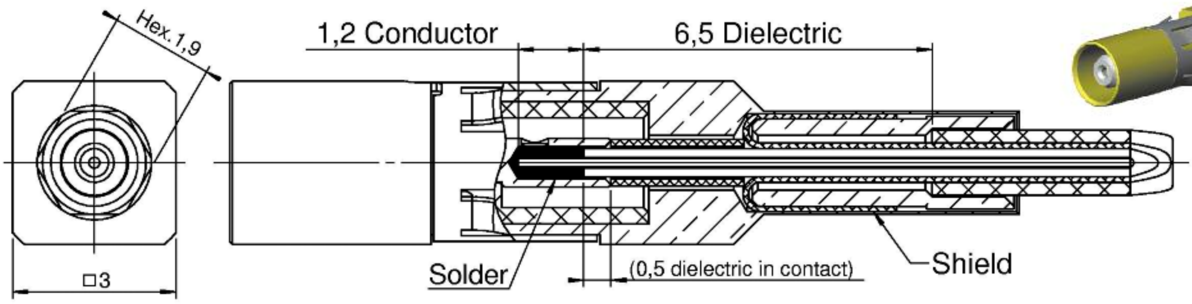


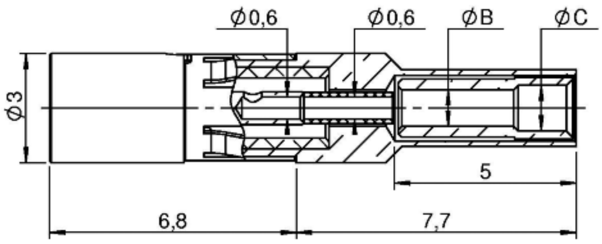
Cable assy instruction IC30HF01 on page 118

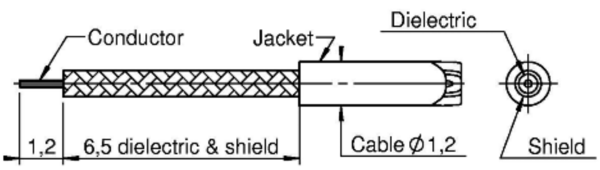
Loaded	Unloaded	ØB	ØC	
1312ZS01	30-1312-ZS-01	1 mm	1,25 mm	For cable type NEXANS 50VMTX
1312ZS02	30-1312-ZS-02	0,85 mm	1,15 mm	For cable type AXON SM50



FEMALE STRAIGHT CRIMP ON CABLES Ø 1.2 P/N 30-2312-ZS

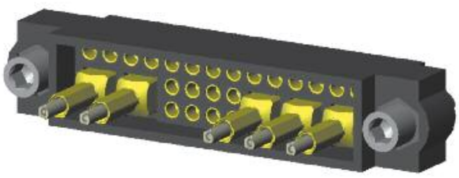






Cable assy instruction IC30HF01 on page 118

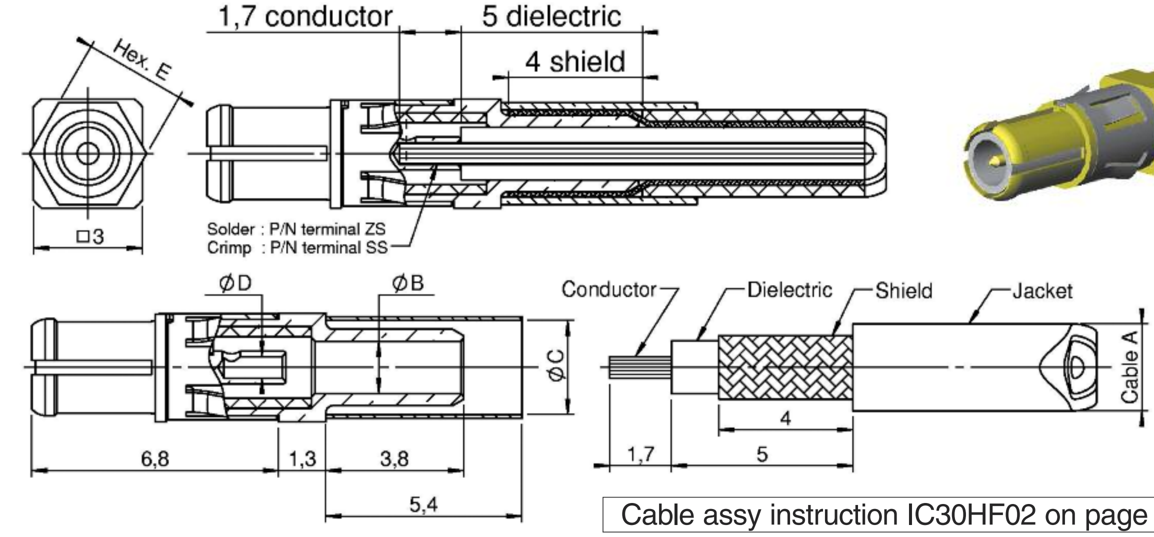
Loaded	Unloaded	ØB	ØC	
2312ZS01	30-2312-ZS-01	1 mm	1,25 mm	For cable type NEXANS 50VMTX
2312ZS02	30-2312-ZS-02	0,85 mm	1,15 mm	For cable type AXON SM50

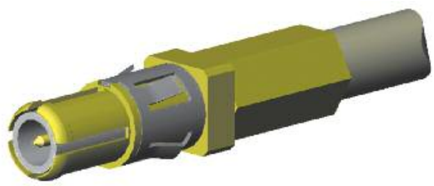


四 006-0ZZ-002

HF : High Frequency contact series 30

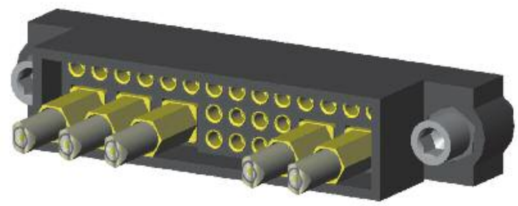
MALE STRAIGHT CRIMP ON CABLE P/N 30-13xx-SS & 30-13xx-ZS



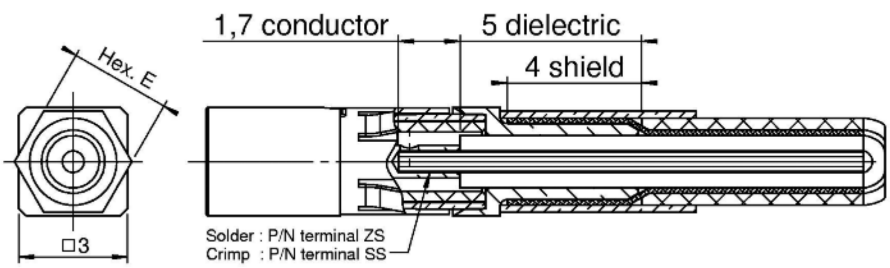


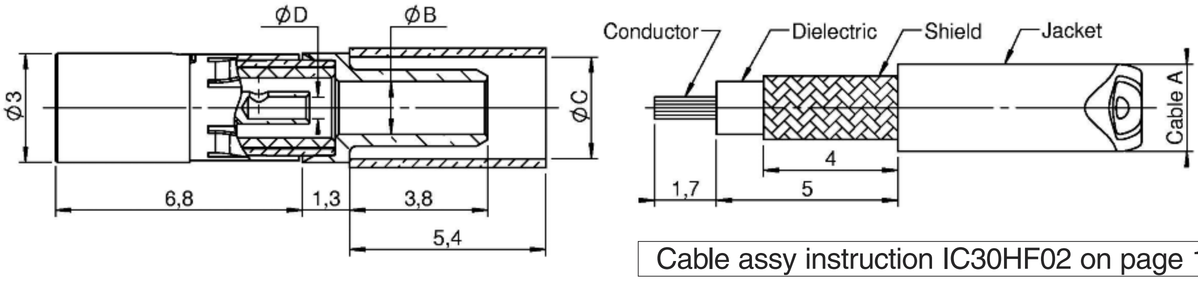
Cable assy instruction IC30HF02 on page 119

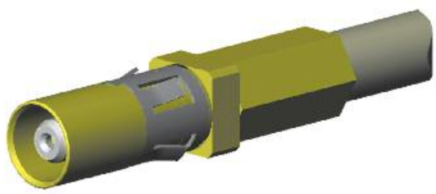
Loaded	Unloaded	Cable A	ØB	ØC	ØD	Hex. E
1320SS	30-1320-SS	Ø 2,0	1 mm	2,2 mm	0,5 mm	2,4 on flat
1324SS	30-1324-SS	Ø 2,4	1,5 mm	2,8 mm	0,6 mm	2,8 on flat
1326SS	30-1326-SS	Ø 2,7	1,7 mm	2,8 mm	0,6 mm	2,8 on flat



FEMALE STRAIGHT CRIMP ON CABLE P/N 30-23xx-SS & 30-23xx-ZS

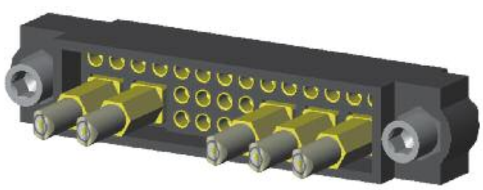






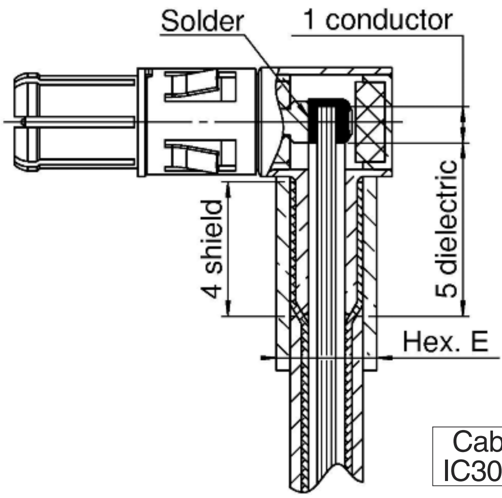
Cable assy instruction IC30HF02 on page 119

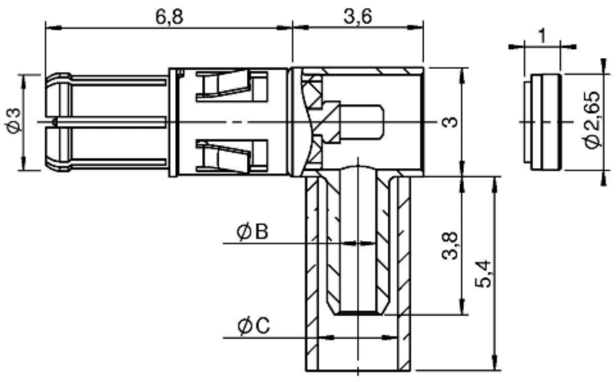
Loaded	Unloaded	Cable A	ØB	ØC	ØD	Hex. E
2320SS	30-2320-SS	Ø 2,0	1 mm	2,2 mm	0,5 mm	2,4 on flat
2324SS	30-2324-SS	Ø 2,4	1,5 mm	2,8 mm	0,6 mm	2,8 on flat
2326SS	30-2326-SS	Ø 2,7	1,7 mm	2,8 mm	0,6 mm	2,8 on flat

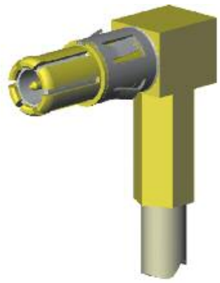


HF : High Frequency contact series 30

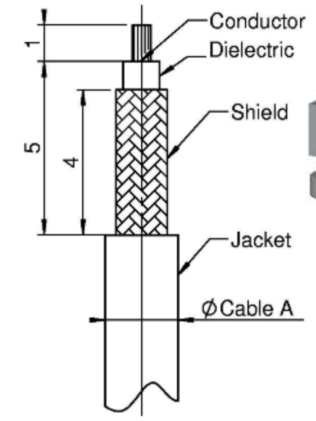
MALE 90° CRIMP ON CABLE P/N 30-14xx-ZS

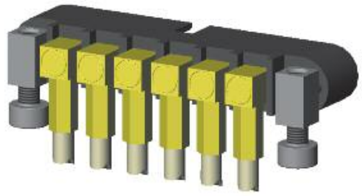






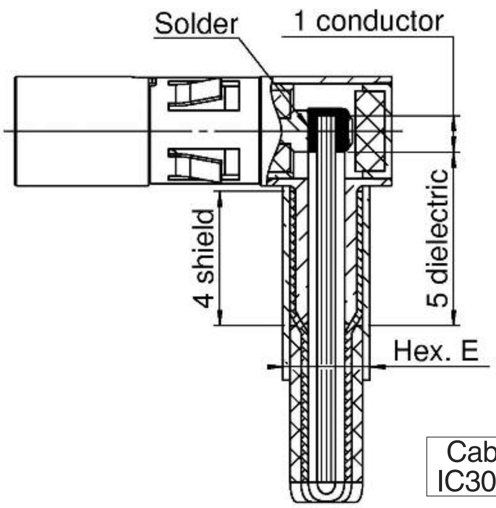
Cable assy instruction
IC30HF03 on page 120

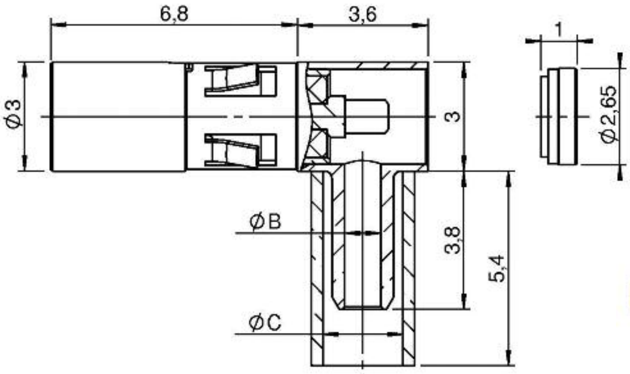


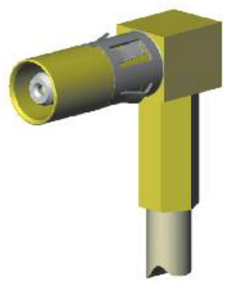


Loaded	Unloaded	Cable A	ØB	ØC	Hex. E
1412ZS	30-1412-ZS	Ø 1,2	0,7 mm	1,3 mm	1,9 on flat
1420ZS	30-1420-ZS	Ø 2,0	1 mm	2,2 mm	2,4 on flat
1424ZS	30-1424-ZS	Ø 2,4	1,5 mm	2,8 mm	2,8 on flat
1426ZS	30-1426-ZS	Ø 2,7	1,7 mm	2,8 mm	2,8 on flat

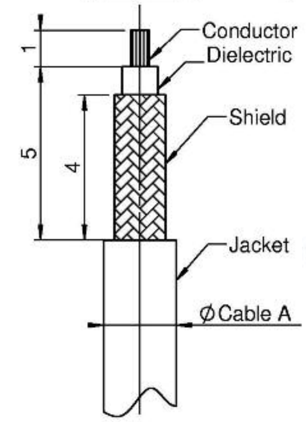
FEMALE 90° CRIMP ON CABLE P/N 30-24xx-ZS



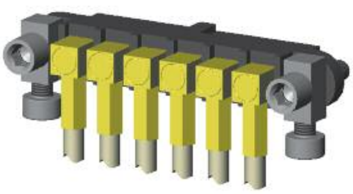




Cable assy instruction
IC30HF03 on page 120

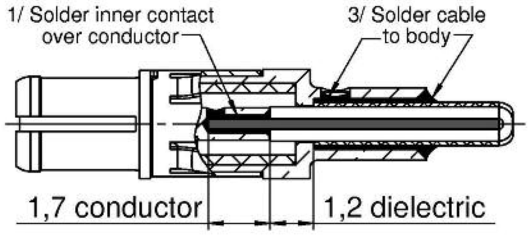


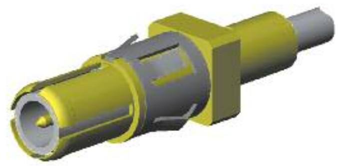
Loaded	Unloaded	Cable A	ØB	ØC	Hex. E
2412ZS	30-2412-ZS	Ø 1,2	0,7 mm	1,3 mm	1,9 on flat
2420ZS	30-2420-ZS	Ø 2,0	1 mm	2,2 mm	2,4 on flat
2424ZS	30-2424-ZS	Ø 2,4	1,5 mm	2,8 mm	2,8 on flat
2426ZS	30-2426-ZS	Ø 2,7	1,7 mm	2,8 mm	2,8 on flat

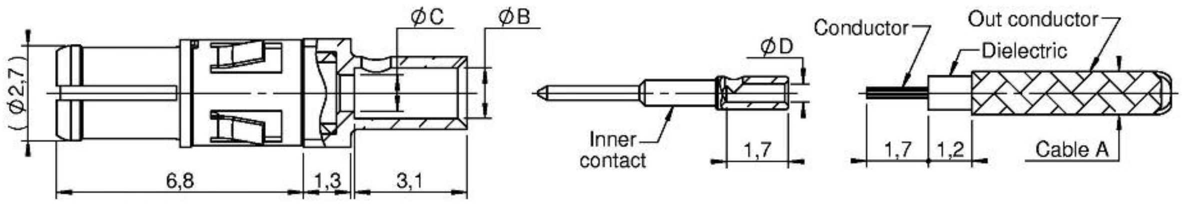


HF : High Frequency contact series 30

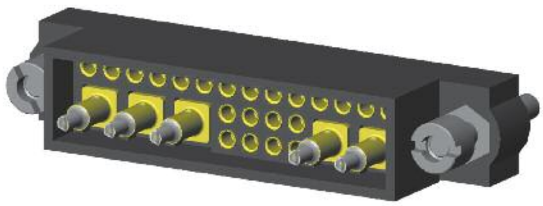
MALE STRAIGHT ON CABLE SEMI-RIGID P/N 30-13xx-ZZ





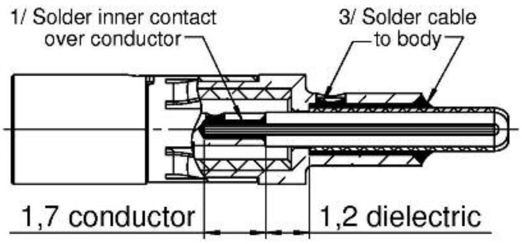


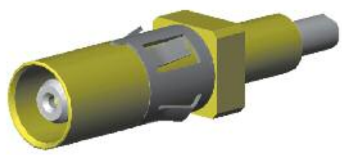
MONTING PROCESS :
1/ Solder inner contact over conductor.
2/ Push cable with inner contact in body.
3/ Solder cable to body. (Tooling reference C14777)

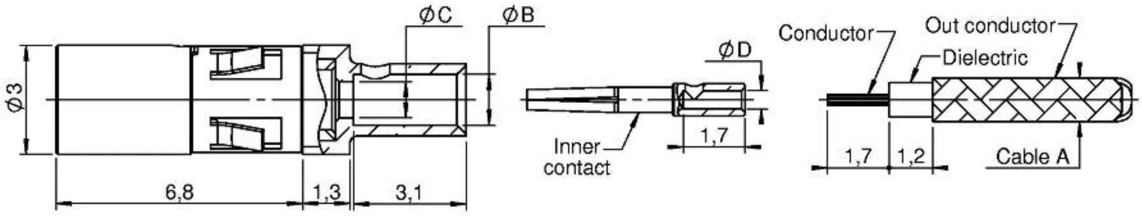


Loaded	Unloaded	Cable A	ØB	ØC	ØD
1347ZZ	30-1347-ZZ	UT 47	1,4 mm	1 mm	0,5 mm
1385ZZ	30-1385-ZZ	UT 85	2,3 mm	1,7 mm	0,6 mm

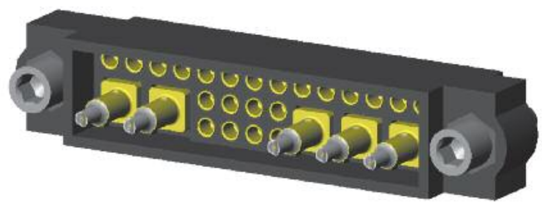
FEMALE STRAIGHT ON CABLE SEMI-RIGID P/N 30-23xx-ZZ







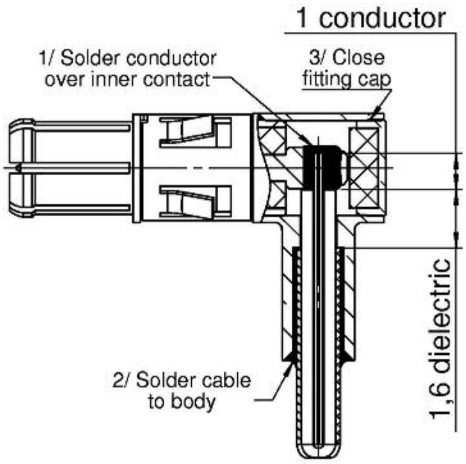
MONTING PROCESS :
1/ Solder inner contact over conductor.
2/ Push cable with inner contact in body.
3/ Solder cable to body. (Tooling reference C14777)

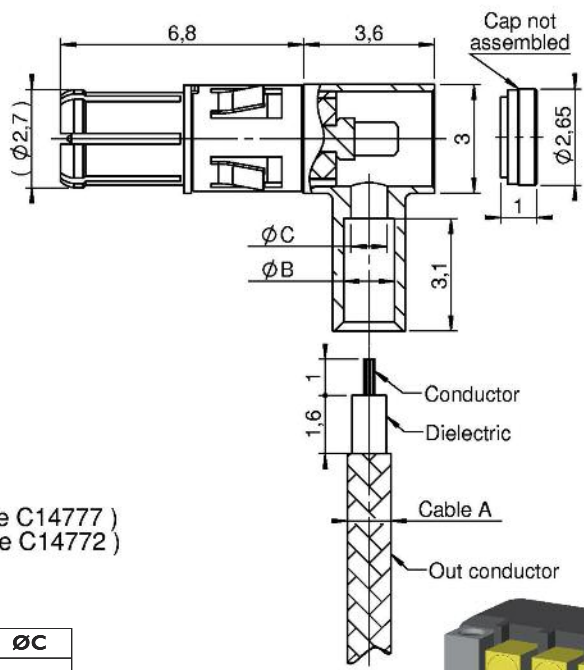


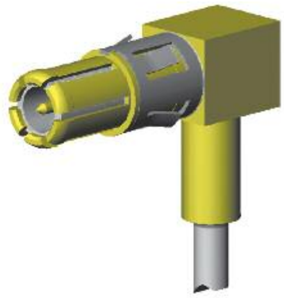
Loaded	Unloaded	Cable A	ØB	ØC	ØD
2347ZZ	30-2347-ZZ	UT 47	1,4 mm	1 mm	0,5 mm
2385ZZ	30-2385-ZZ	UT 85	2,3 mm	1,7 mm	0,6 mm

HF : High Frequency contact series 30

MALE 90° ON CABLE SEMI-RIGID P/N 30-14xx-ZZ

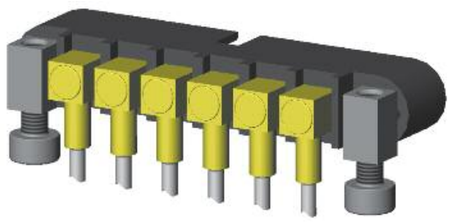




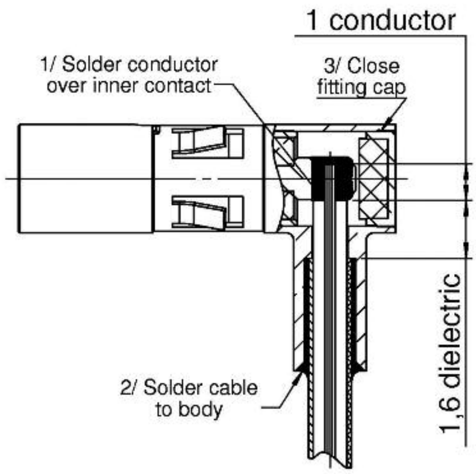


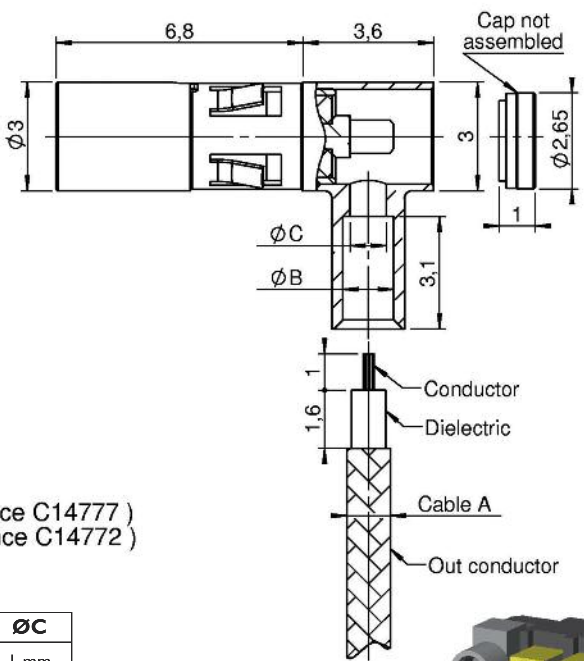
MONTING PROCESS :
1/ Solder conductor over inner contact.
2/ Solder cable to body. (Tooling reference C14777)
3/ Assembly the cap to body (Tooling reference C14772)

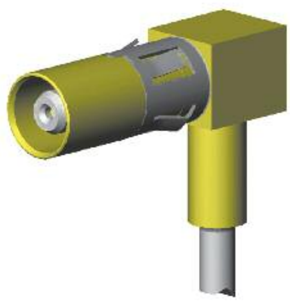
Loaded	Unloaded	Cable A	ØB	ØC
1447ZZ	30-1447-ZZ	UT 47	1,4 mm	1 mm
1485ZZ	30-1485-ZZ	UT 85	2,3 mm	1,7 mm



FEMALE 90° ON CABLE SEMI-RIGID P/N 30-24xx-ZZ

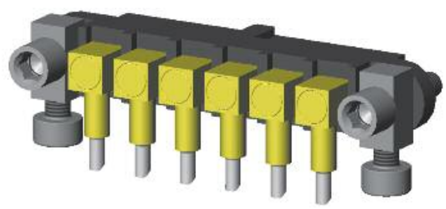






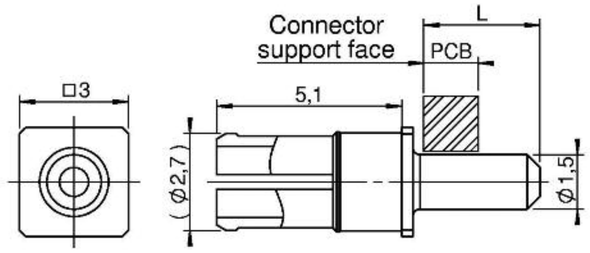
MONTING PROCESS :
1/ Solder conductor over inner contact.
2/ Solder cable to body. (Tooling reference C14777)
3/ Assembly the cap to body (Tooling reference C14772)

Loaded	Unloaded	Cable A	ØB	ØC
2447ZZ	30-2447-ZZ	UT 47	1,4 mm	1 mm
2485ZZ	30-2485-ZZ	UT 85	2,3 mm	1,7 mm

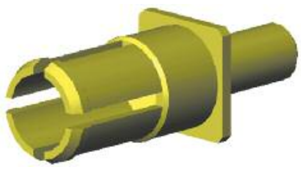


HP : High Power contact series 30

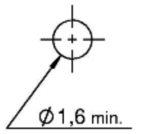
MALE STRAIGHT ON PCB P/N 30-3300-XX



Loaded	Length L
3300CMM	3 mm
330045	4,5 mm

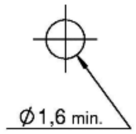


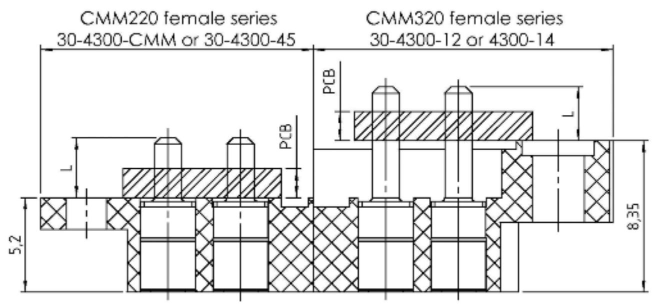
PCB lay-out



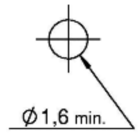
FEMALE STRAIGHT ON PCB P/N 30-4300-XX

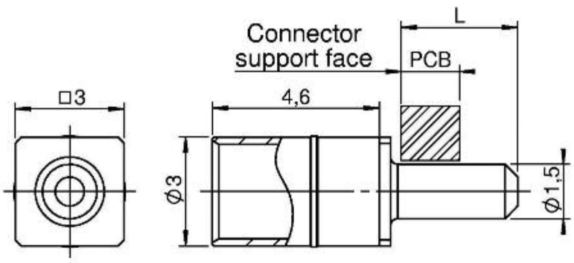
PCB lay-out

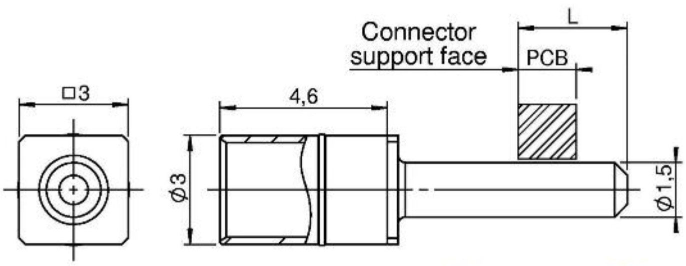




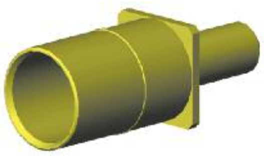
PCB lay-out



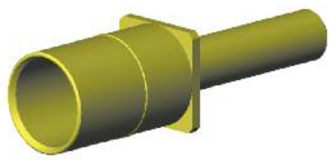




Loaded	Length L
4300CMM	3 mm
430045	4,5 mm

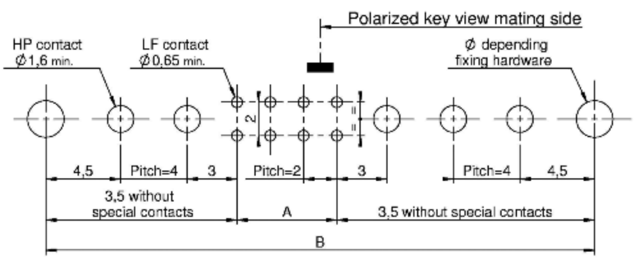


Loaded	Length L
430012	3 mm
430014	4,5 mm



PCB LAYOUT 30-3300-XX & 30-4300-XX

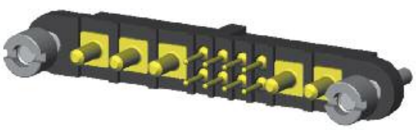
PCB lay-out 220 series



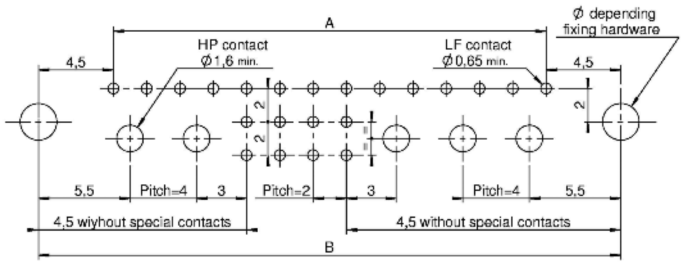
A = nn - 2

$B = \{(yy + zz) \times 4\} + A + 7$

B max. = 65 mm



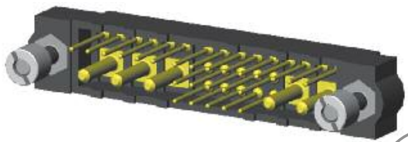
PCB lay-out for CMM320 series (Shown looking onto mating face)



$$A = \left[\frac{\{(yy + zz) \times 4 + nn\} \times 2}{3} \right] - 2$$

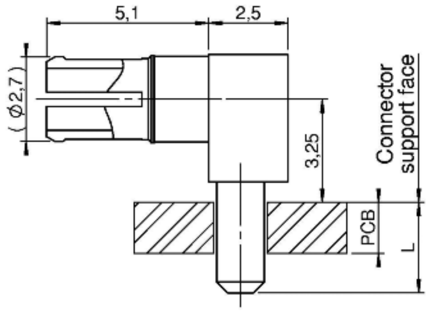
B = A + 9

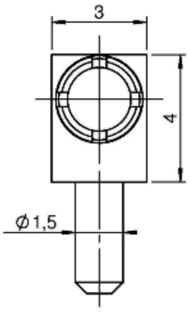
B max. = 87



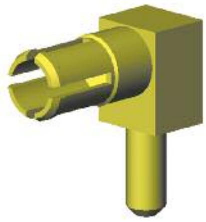
HP : High Power contact series 30

MALE 90° PCB P/N 30-3400-XX

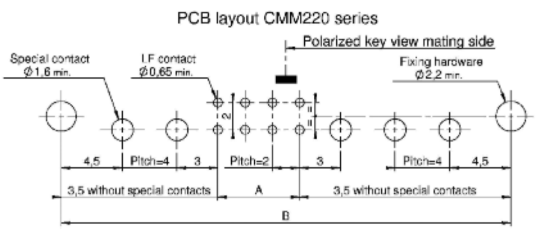


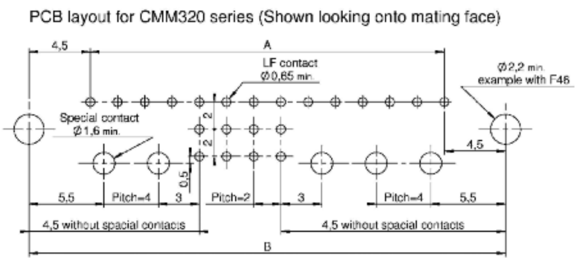


Loaded	Length L
3400CMM	3 mm
340045	4,5 mm

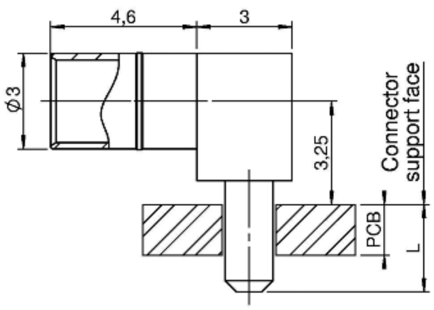


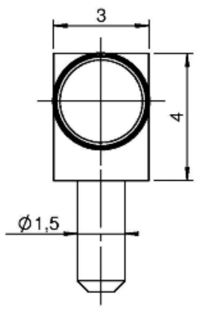
PCB LAYOUT 30-3400-XX



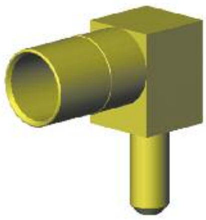


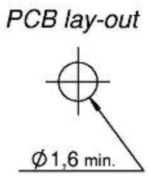
FEMALE 90° PCB P/N 30-4400-XX



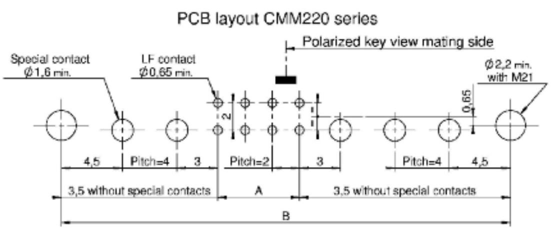


Loaded	Length L
4400CMM	3 mm
440045	4,5 mm





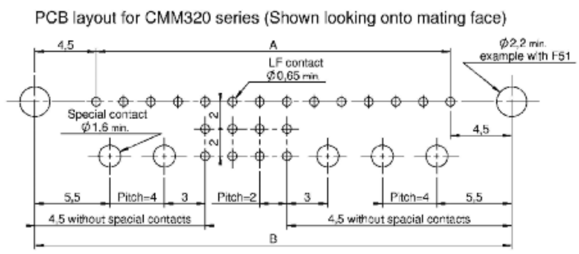
PCB LAYOUT 30-4400-XX



A = nn - 2

B = {(yy + zz) x 4} + A + 7

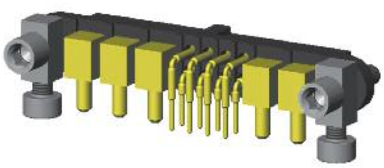
B max. = 65 mm

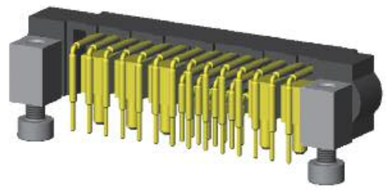


$$A = \left[\frac{\{(yy + zz) \times 4 + nn\} \times 2}{3} \right] - 2$$

B = A + 9

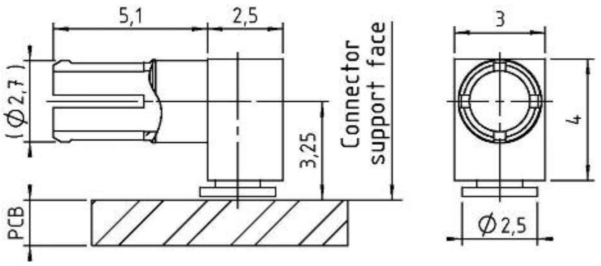
B max. = 87

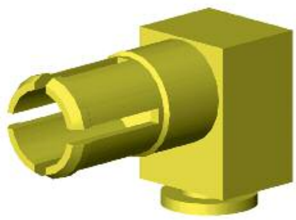




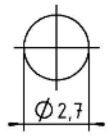
HP : High Power contact series 30

MALE 90° SMT 30-3500



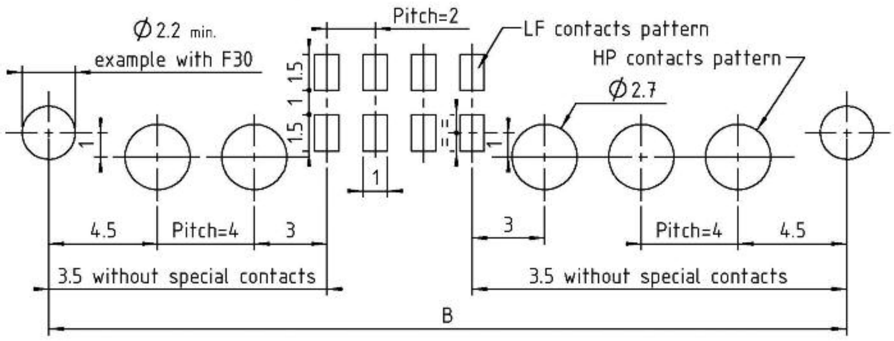


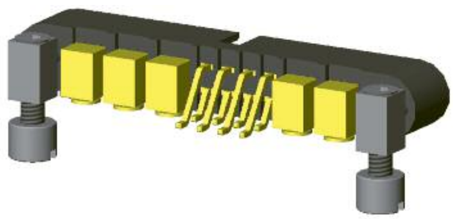
PCB layout



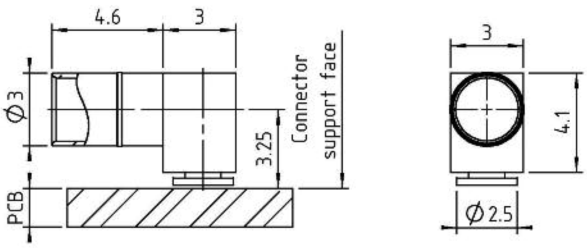
PCB LAYOUT 30-3500

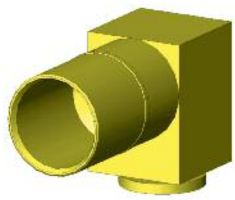
PCB layout for CMM220 male series



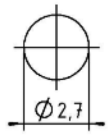


FEMALE 90° SMT 30-4500



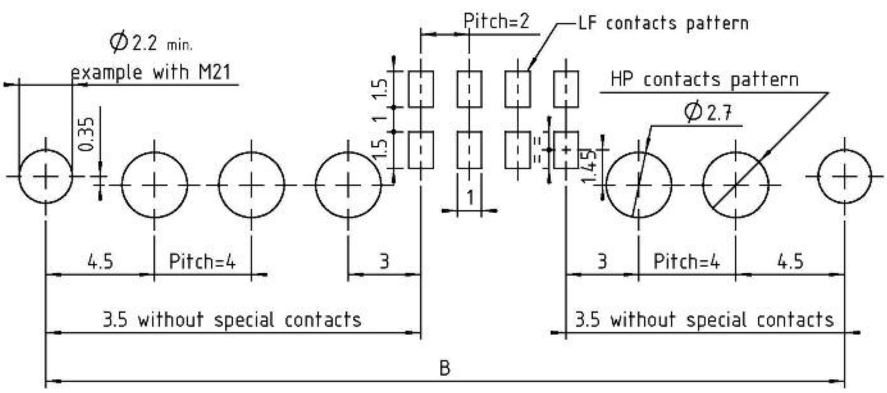


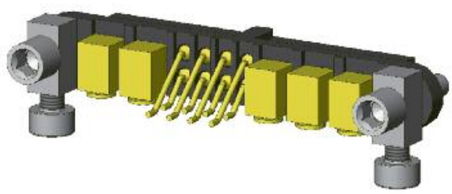
PCB layout



PCB LAYOUT 30-4500

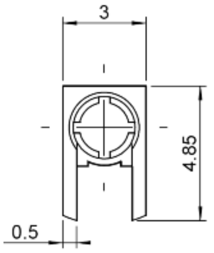
PCB layout for CMM220 female series

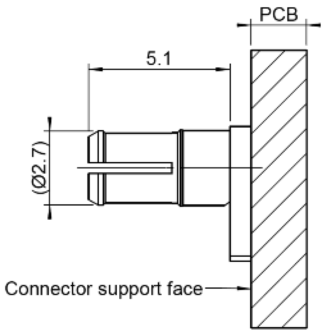


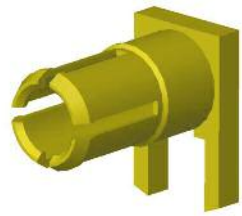


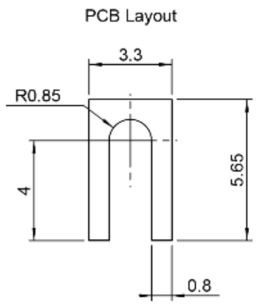
HP : High Power contact series 30

MALE STRAIGHT SMT P/N 30-3600

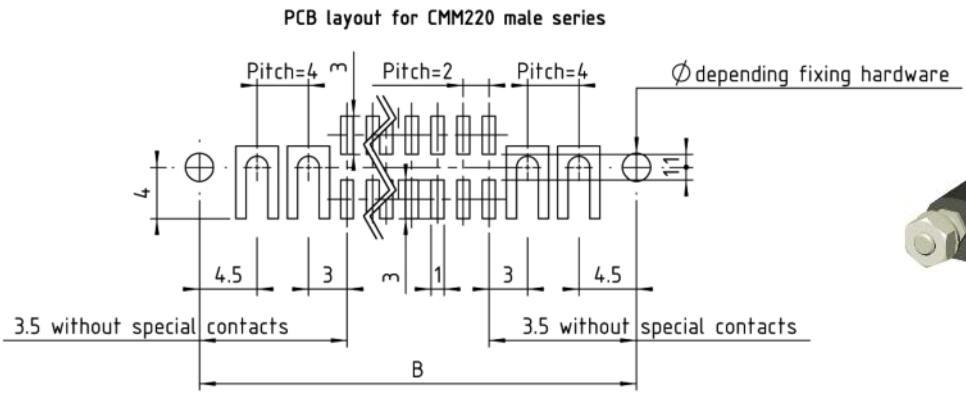


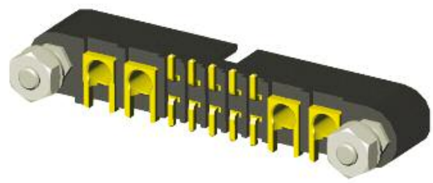




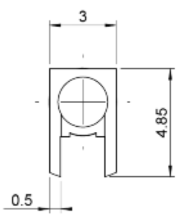


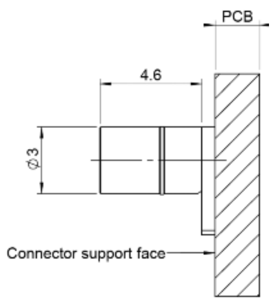
PCB LAYOUT 30-3600

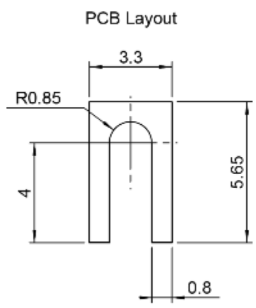




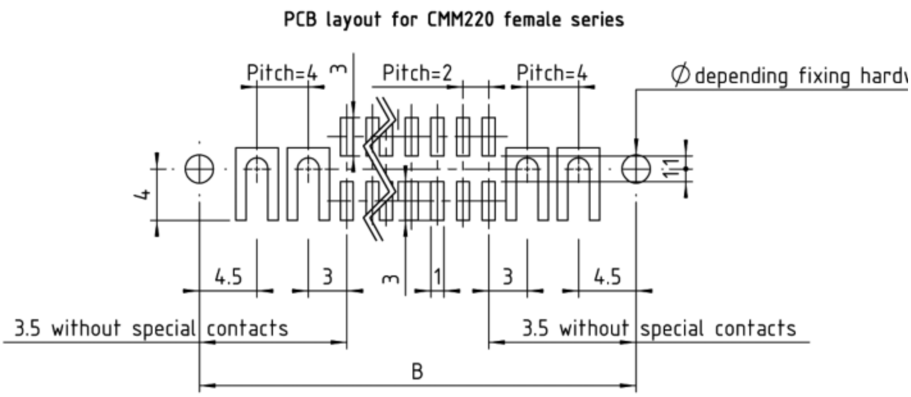
FEMALE STRAIGHT SMT P/N 30-4600

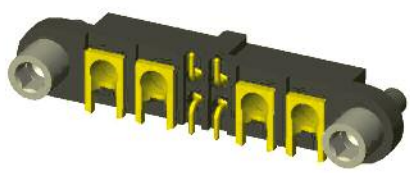






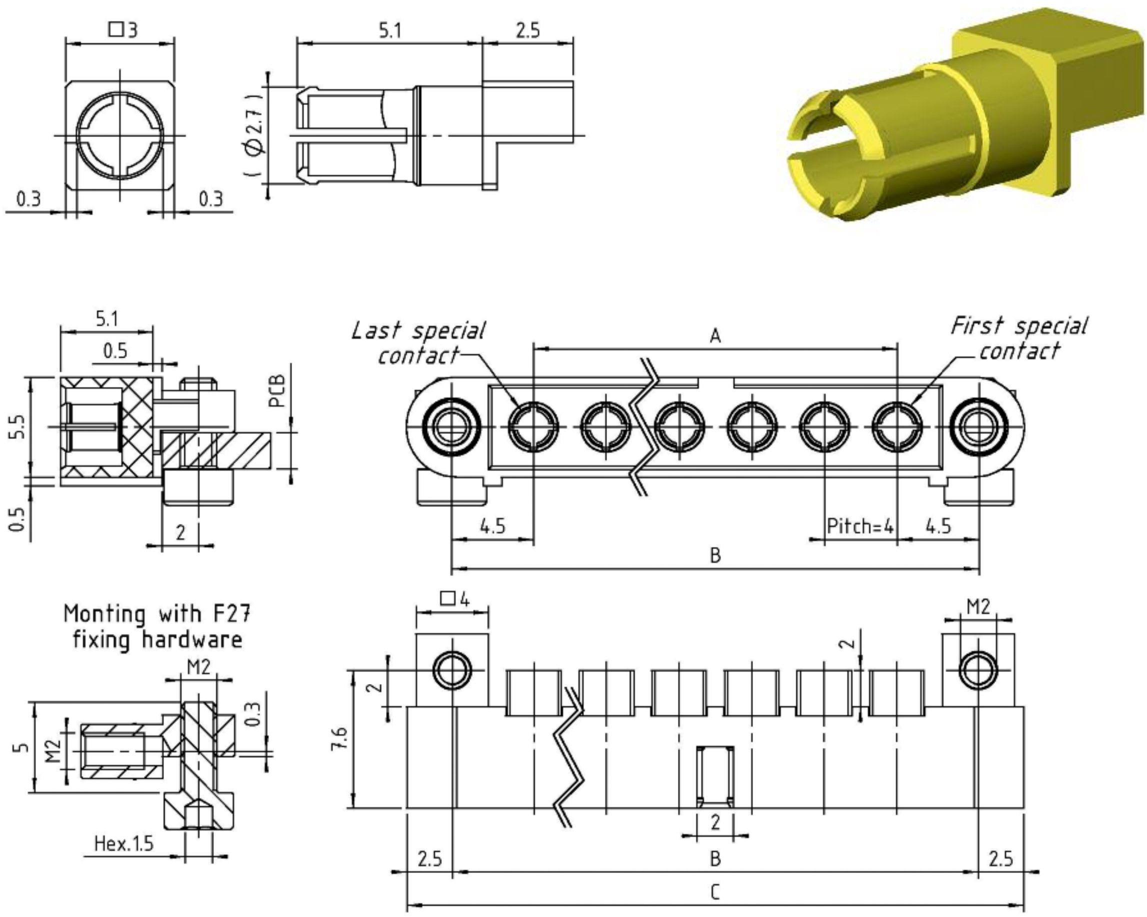
PCB LAYOUT 30-4600



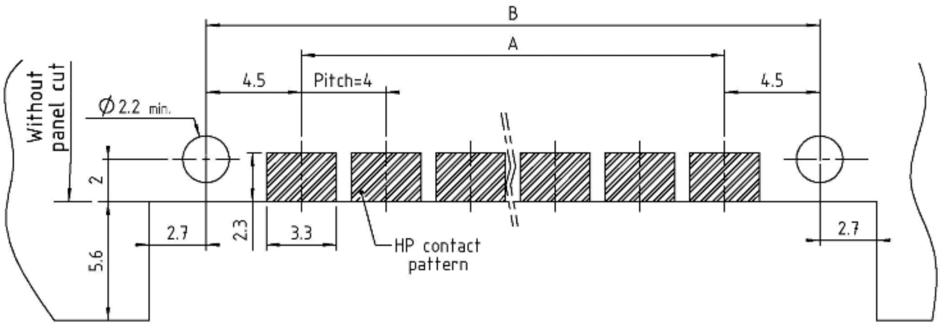


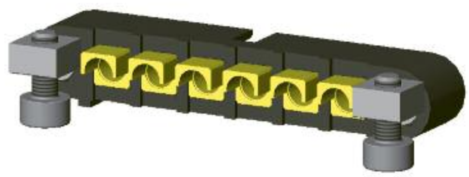
HP : High Power contact series 30

MALE 90° SMT CARD EDGE (WITHOUT LF CONTACTS) 30-3500-CMM



PCB LAYOUT 30-3500-CMM





A = (nn x 4) - 4
B = A + 9
C = B + 5

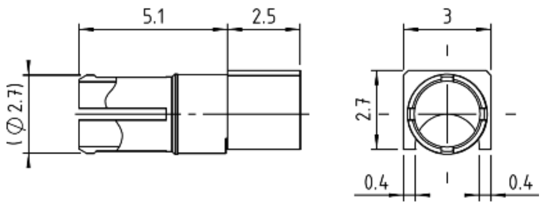
PART NUMBERING

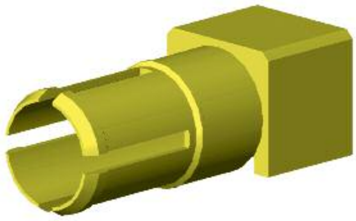
Number of contacts

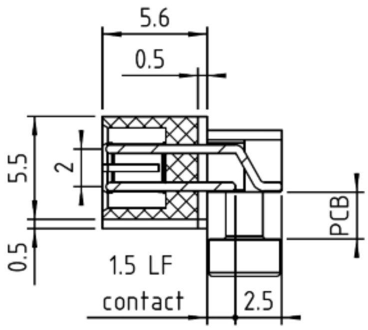
2 2 1 D 0 0 F27 - 0 0 z z - 3 5 0 0 C M M

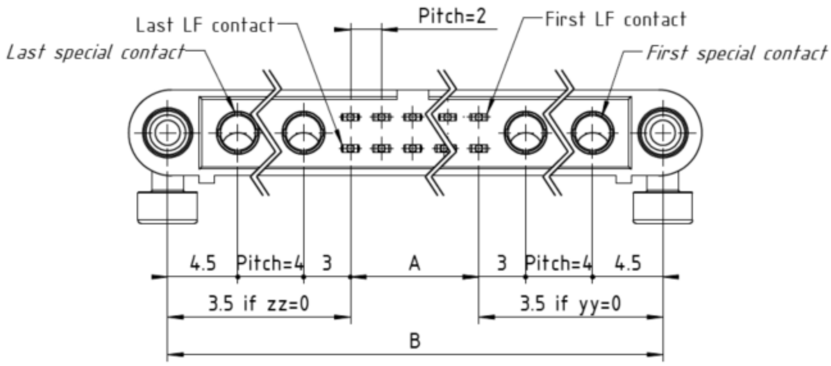
HP : High Power contact series 30

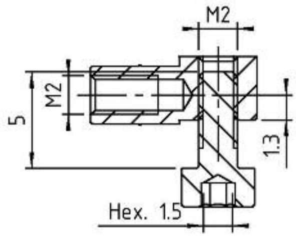
MALE 90° SMT CARD EDGE 30-3500-12 (FOR CMM 220 SERIES)

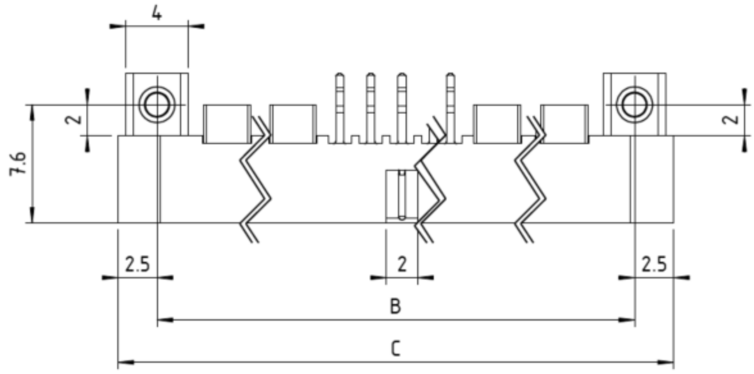




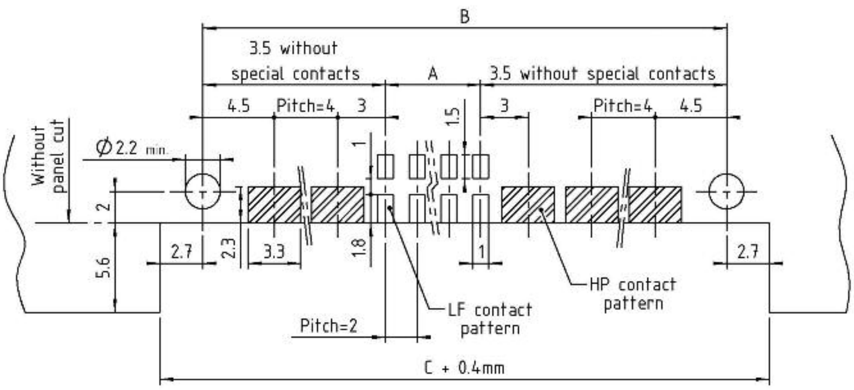


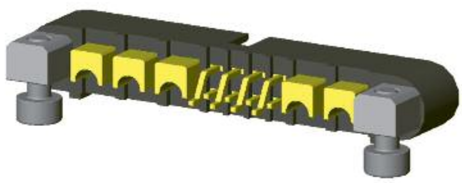






PCB LAYOUT 30-3500-12





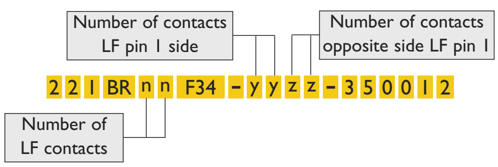
A = nn - 2

B = {(yy + zz) x 4} + A + 7

B max. = 65 mm

C = B + 5

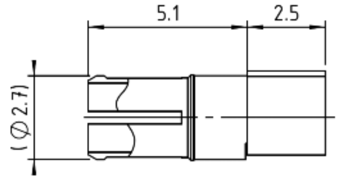
PART NUMBERING

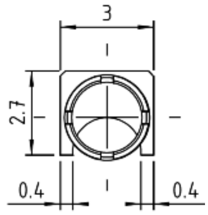


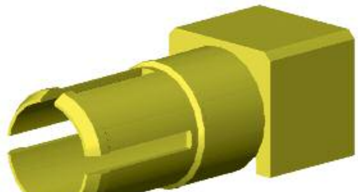
四 006-0ZZ-002

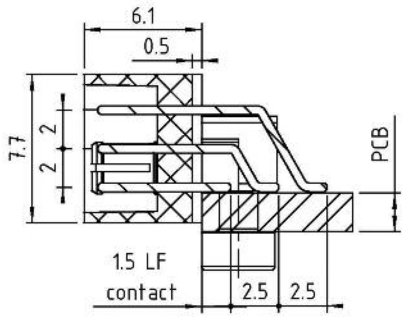
HP : High Power contact series 30

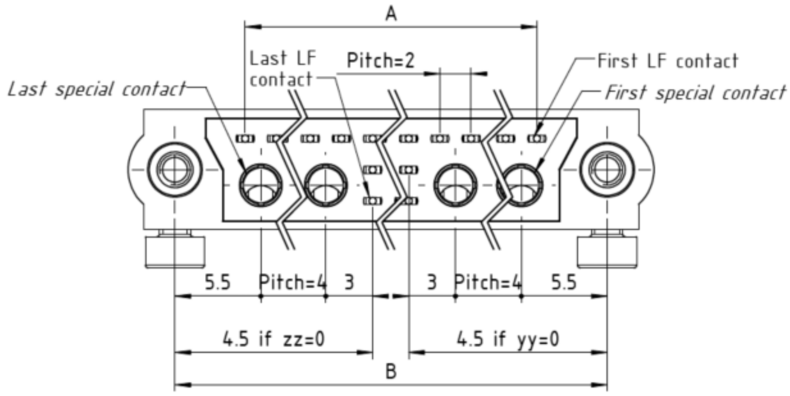
MALE 90° SMT CARD EDGE 30-3500-12 (FOR CMM 320 SERIES)



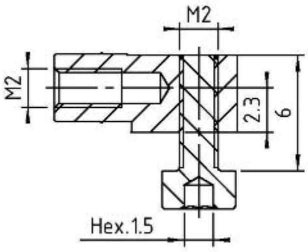


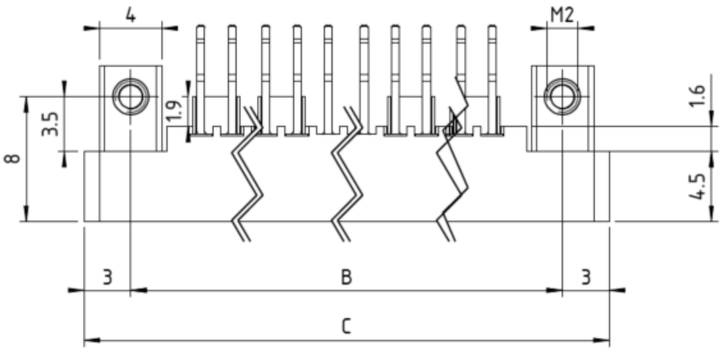




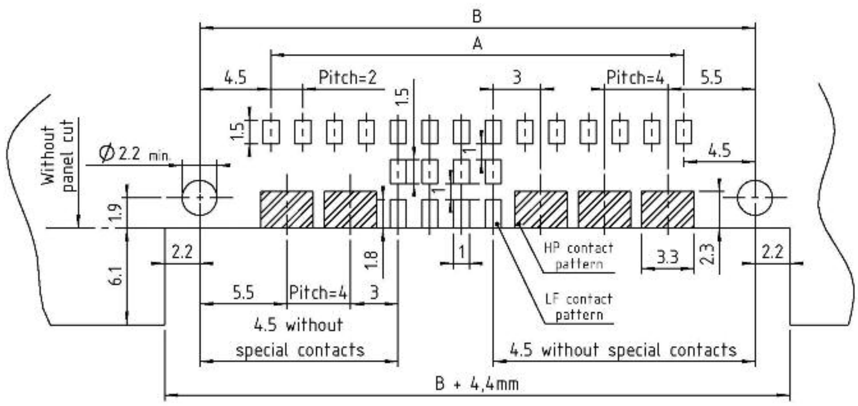


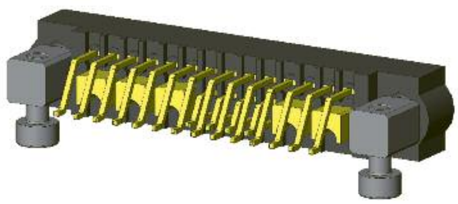
Monting F50
fixing hardware
for CMM320 series





PCB LAYOUT 30-3500-12





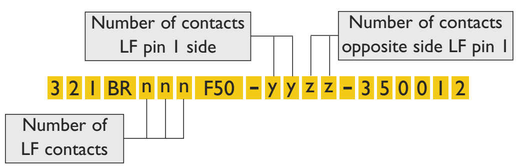
$$A = \left[\frac{\{(yy + zz) \times 4 + nn\} \times 2}{3}\right] - 2$$

B = A + 9

B max. = 87

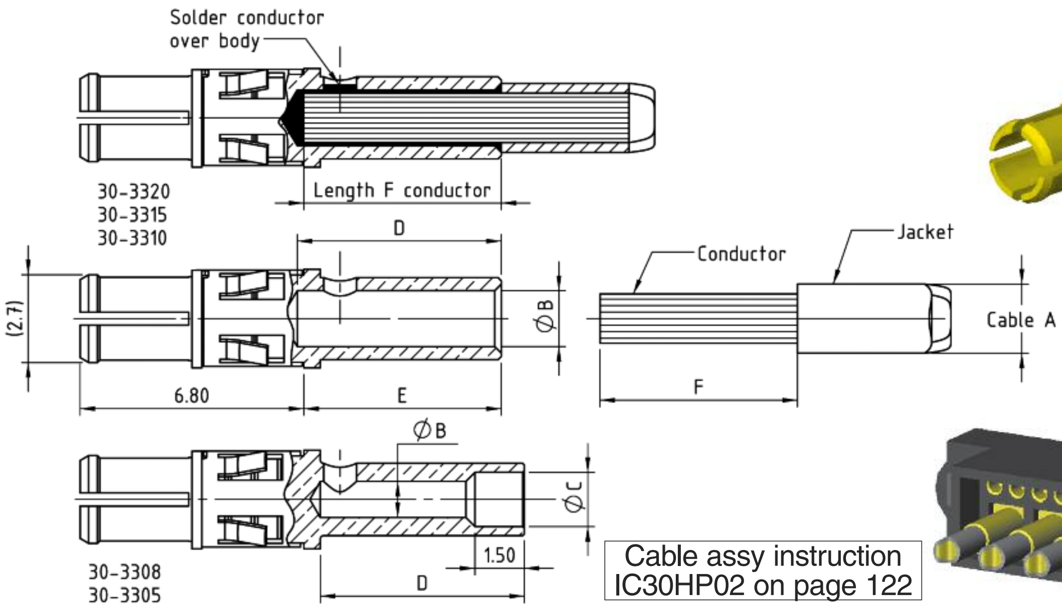
C = A + 15

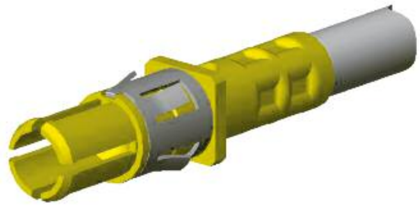
PART NUMBERING



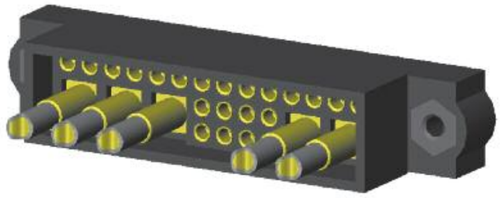
HP : High Power contact series 30

MALE STRAIGHT ON CABLE P/N 30-33xx (solder or crimp)



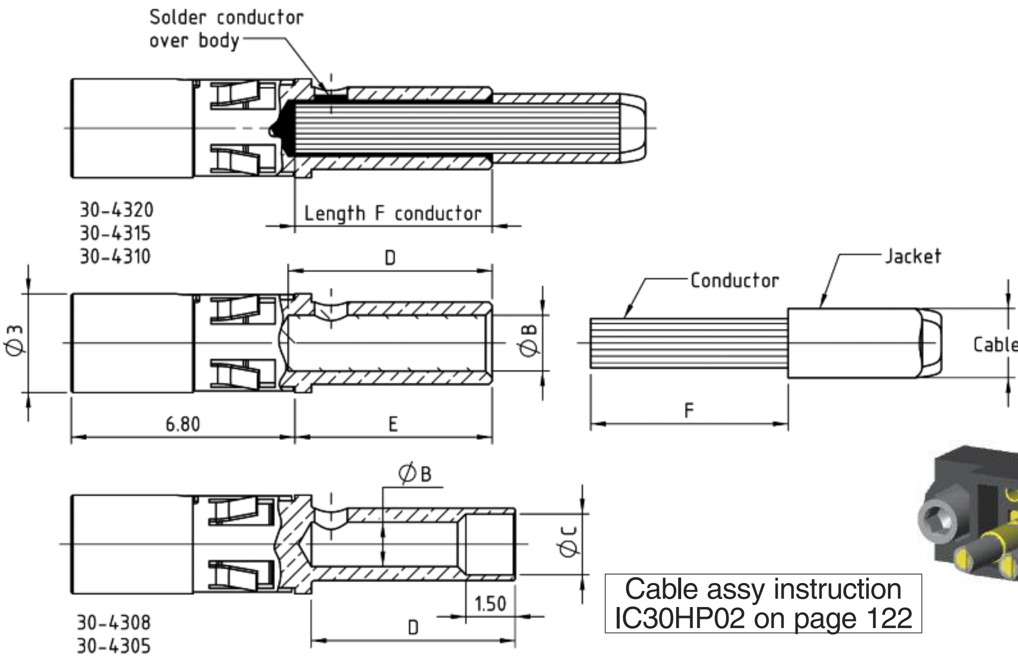


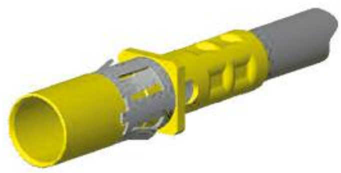
Cable assy instruction
IC30HP02 on page 122



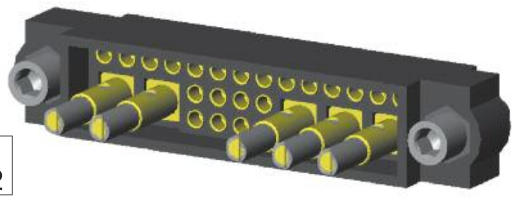
Loaded	Unloaded	Ampere	Cable A					ØB	ØC	Length D hole	Length E body	Length F conductor	Solder	Crimp by HX3 Hexagone size/Dies	Crimp by AF8
			AWG 20	AWG 18	AWG 16	AWG 14	AWG 12								
3305	30-3305	5A	X					1,1 mm	1,65 mm	6,2 mm	6,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
3308	30-3308	8A		X				1,35 mm	1,85 mm	6,2 mm	6,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
3310	30-3310	10A	X	X	X			1,7 mm		6,2 mm	6 mm	6 mm	OK		OK
3315	30-3315	15A				X		2 mm		6,2 mm	6 mm	6 mm	OK		OK
3320	30-3320	20A					X	2,6 mm		5,5 mm	6 mm	5,3 mm	OK		OK

FEMALE STRAIGHT ON CABLE P/N 30-43xx (solder or crimp)





Cable assy instruction
IC30HP02 on page 122

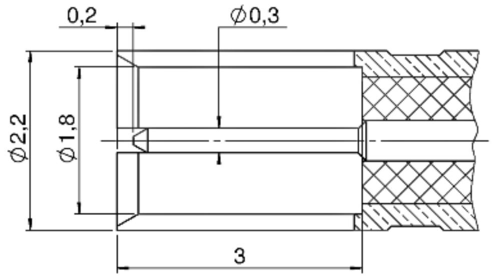


Loaded	Unloaded	Ampere	Cable A					ØB	ØC	Length D hole	Length E body	Length F conductor	Solder	Crimp by HX3 Hexagone size/Dies	Crimp by AF8
			AWG 20	AWG 18	AWG 16	AWG 14	AWG 12								
4305	30-4305	5A	X					1,1 mm	1,65 mm	6,2 mm	6,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
4308	30-4308	8A		X				1,35 mm	1,85 mm	6,2 mm	6,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
4310	30-4310	10A	X	X	X			1,7 mm		6,2 mm	6 mm	6 mm	OK		OK
4315	30-4315	15A				X		2 mm		6,2 mm	6 mm	6 mm	OK		OK
4320	30-4320	20A					X	2,6 mm		5,5 mm	6 mm	5,3 mm	OK		OK

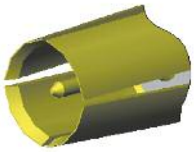
HF : High Frequency contacts series 22
HP : High Power contacts series 22

FOR CMM 340

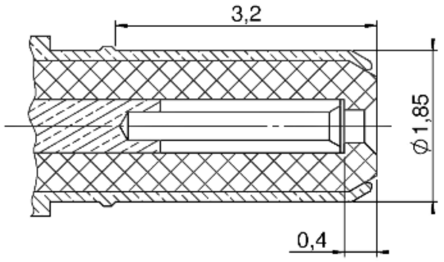
INSERTION



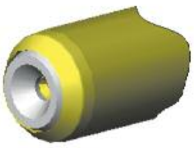
HF female contact insertion



The special contact gender is determined by the body and not by the central contact



HF male contact insertion



PART NUMBERING FOR PCB HF & HP SPECIAL CONTACTS

These two digits are linked to the connector. Do not use them inside a CMM part number when loaded.
All dash signs also disappear

Contact type:
3 = straight
4 = right angle
5 = SMT 90°
6 = SMT straight

Termination length
"12" = 1st row 3mm
"22" = 2nd row 3mm
"14" = 1st row 4.5mm
"24" = 2nd row 4.5mm
"…"

2 2 - _ _ 0 0 - _ _

Coaxmatic 22™
1 = male coax
2 = female coax
3 = high power male
4 = high power female

PART NUMBERING FOR HF & HP SPECIAL CONTACTS ON-CABLE

For HF contacts only Inner contact
Z = solder
S = crimp

For HF contacts only shield
Z = solder
S = crimp

These two digits are linked to the connector. Do not use them inside a CMM part number when loaded.
All dash signs also disappear

Contact type:
3 = straight
"…"

Use these 2 digits only with 1.2mm dia. cables mounted on a HF straight contact
Crimp shield type: 01 = refer to page 92 02 = refer to page 92

2 2 - _ 3 _ _ - Z _ - 7 5 - _ _

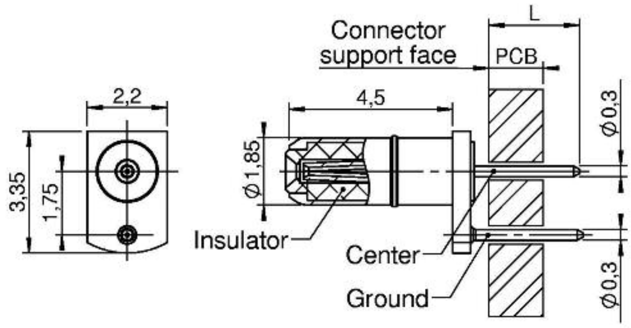
Special contacts :
1 = male HF
2 = female HF
3 = male HP
4 = female HP

Use these 2 digits only with 75 Ohm cables

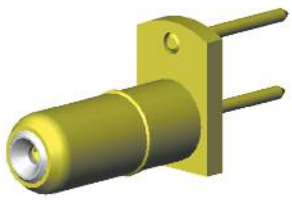
Contact termination:
10 = for HP 10A
12 = for HF cable 1.2mm
20 = for HF cable 2mm

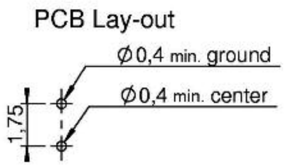
HF : High Frequency contacts series 22

MALE STRAIGHT ON PCB P/N 22-1300-xx

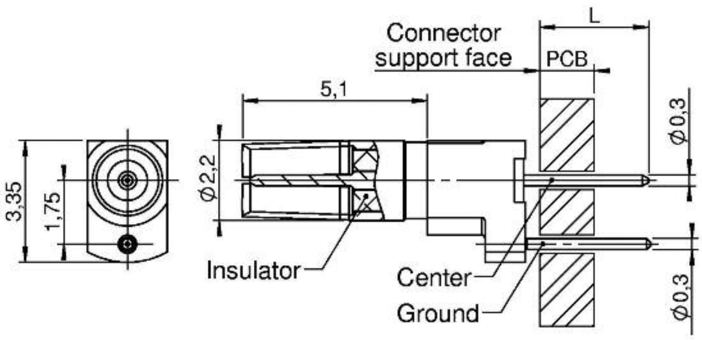


Loaded	Length L
130012	3 mm
130014	4,5 mm

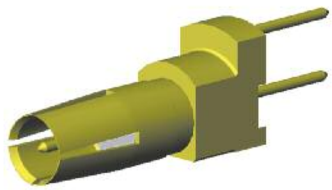


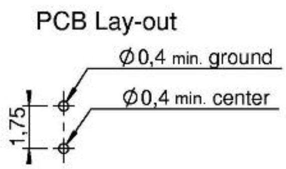


FEMALE STRAIGHT ON PCB P/N 22-2300-xx

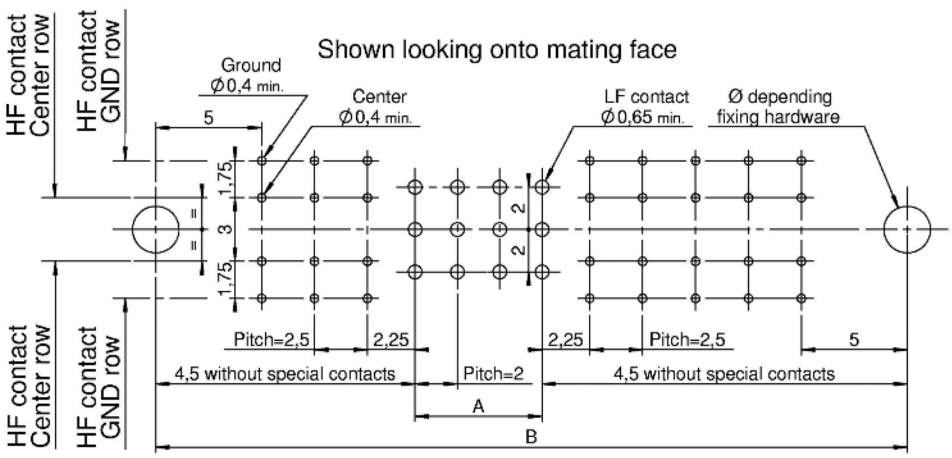


Loaded	Length L
230012	3 mm
230014	4,5 mm





PCB LAYOUT 22-1300-xx & 22-2300-xx



$$A = \left\{\frac{(nnx2)}{3}\right\} -2$$

if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} \times 2{,}5+14{,}5+A$$

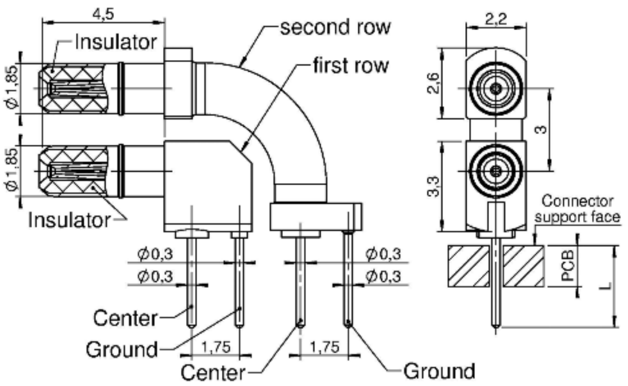
if yy or zz = 0 :

$$B = \left\{\left(\frac{(yy)\text{or}(zz)}{2}\right)-1\right\} \times 2{,}5+11{,}75+A$$

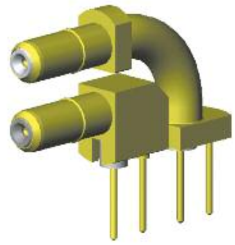
B max. = 87

HF : High Frequency contacts series 22

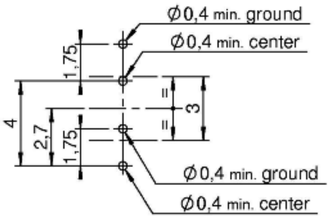
MALE 90° PCB P/N 22-1400-xx



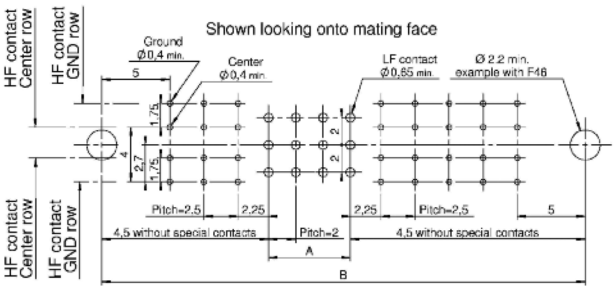
	Loaded		Loaded	Length L
First row	140012	it mounted in same connector	140002	3 mm
Second row	140022			
First row	140014	it mounted in same connector	140004	4,5 mm
Second row	140024			



PCB Lay-out



PCB LAYOUT 22-1400-xx



$$A = \left\{\frac{(nnx2)}{3}\right\} -2$$

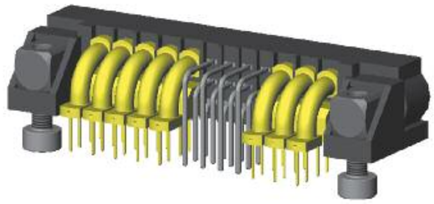
if yy or zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} \times 2{,}5+14{,}5+A$$

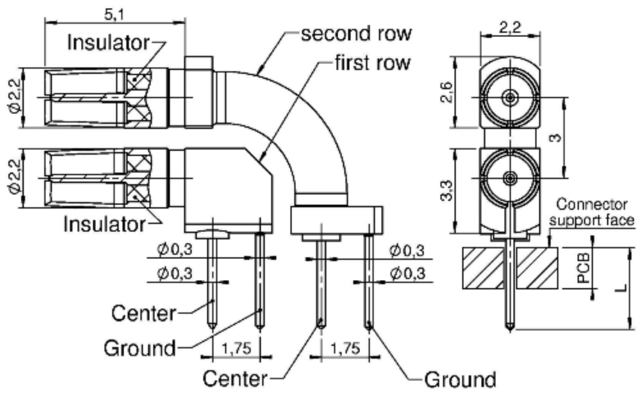
if yy or zz = 0 :

$$B = \left\{\left(\frac{(yy)_{or}(zz)}{2}\right)-1\right\} \times 2{,}5+11{,}75+A$$

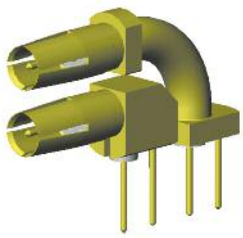
B max. = 87



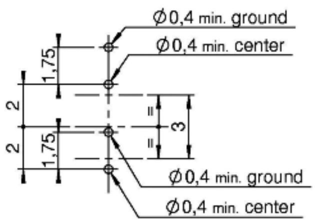
FEMALE 90° PCB P/N 22-2400-xx



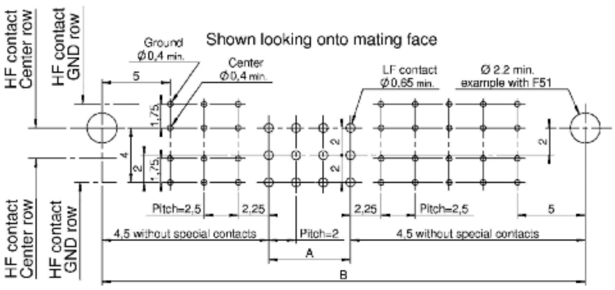
	Loaded		Loaded	Length L
First row	240012	it mounted in same connector	240002	3 mm
Second row	240022			
First row	240014	it mounted in same connector	240004	4,5 mm
Second row	240024			



PCB Lay-out



PCB LAYOUT 22-2400-xx



$$A = \left\{\frac{(nnx2)}{3}\right\} -2$$

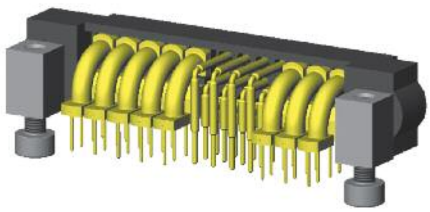
if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} \times 2{,}5+14{,}5+A$$

if yy or zz = 0 :

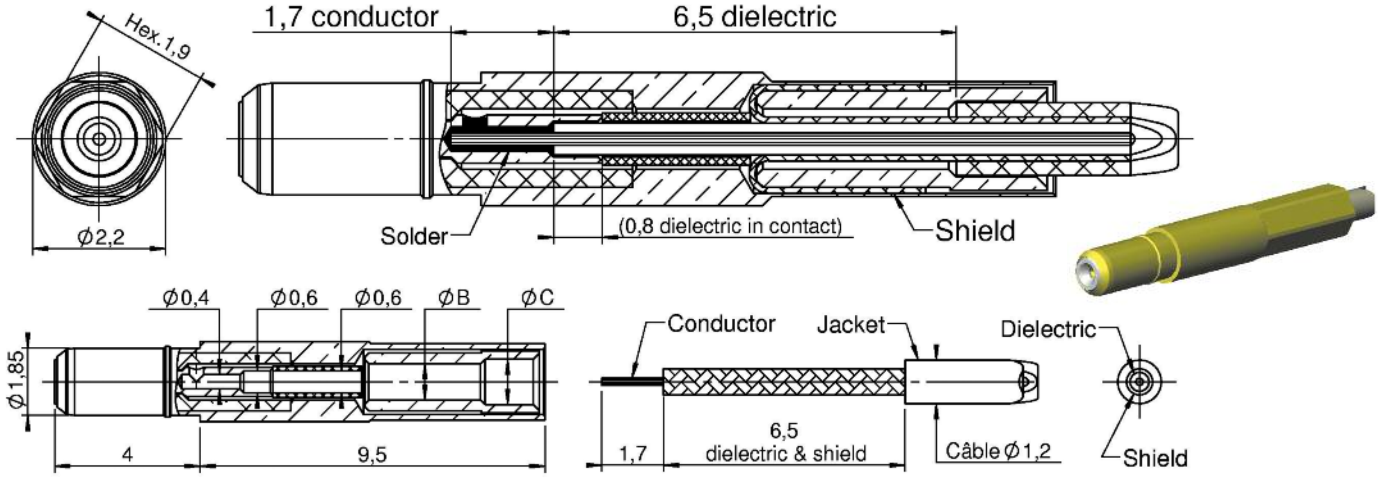
$$B = \left\{\left(\frac{(yy)_{or}(zz)}{2}\right)-1\right\} \times 2{,}5+11{,}75+A$$

B max. = 87



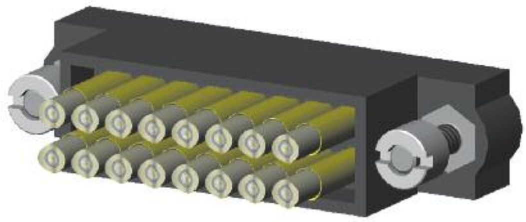
HF : High Frequency contacts series 22

MALE STRAIGHT TO CRIMP ON CABLE Ø 1.2 P/N 22-1312-ZS-xx

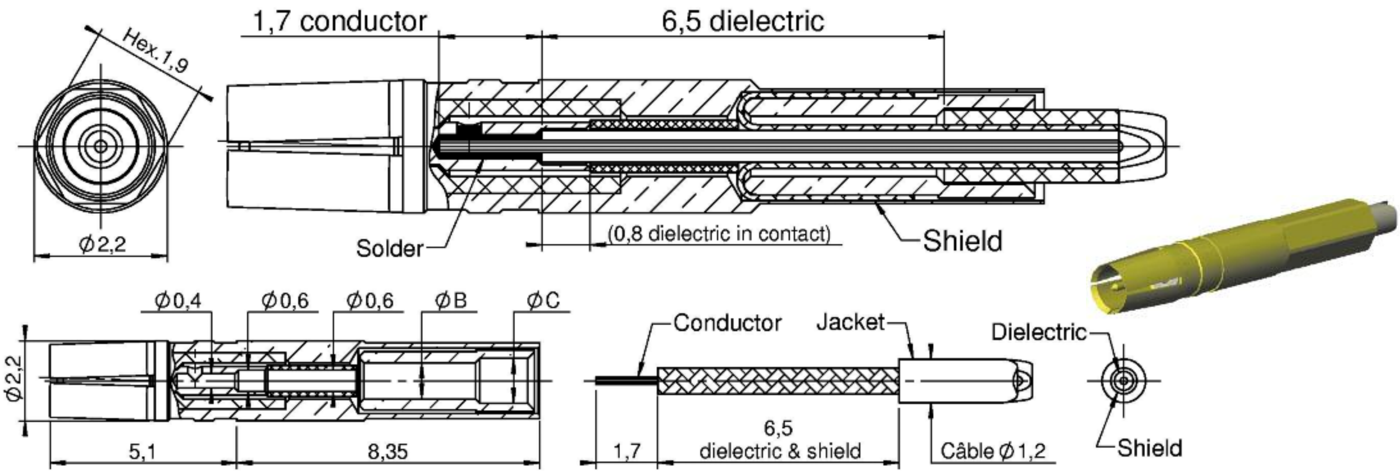


Cable assy instruction IC22HF01 on page 116

Loaded	Unloaded	ØB	ØC	
1312ZS01	22-1312-ZS-01	1 mm	1,25 mm	For cable type NEXANS 50VMTX
1312ZS02	22-1312-ZS-02	0,85 mm	1,15 mm	For cable type AXON SM50

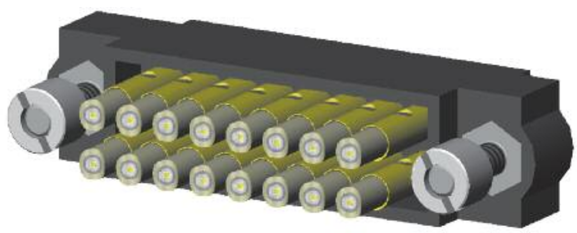


FEMALE STRAIGHT TO CRIMP ON CABLE Ø 1.2 P/N 22-2312-ZS-xx



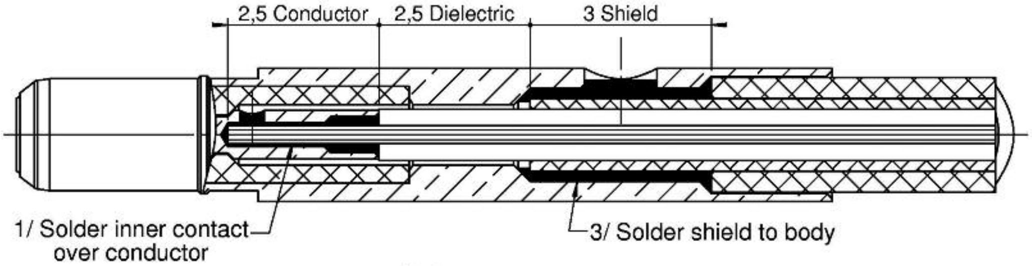
Cable assy instruction IC22HF02 on page 117

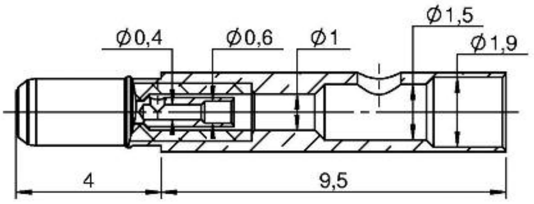
Loaded	Unloaded	ØB	ØC	
2312ZS01	22-2312-ZS-01	1 mm	1,25 mm	For cable type NEXANS 50VMTX
2312ZS02	22-2312-ZS-02	0,85 mm	1,15 mm	For cable type AXON SM50

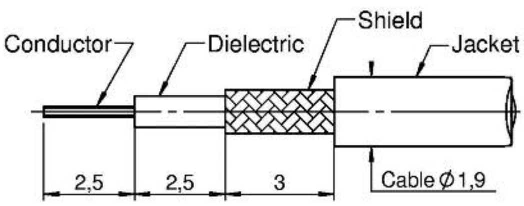


HF : High Frequency contacts series 22

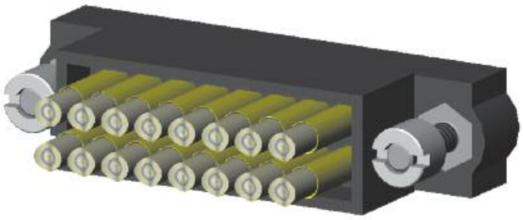
MALE STRAIGHT ON CABLE P/N 22-1320-ZZ





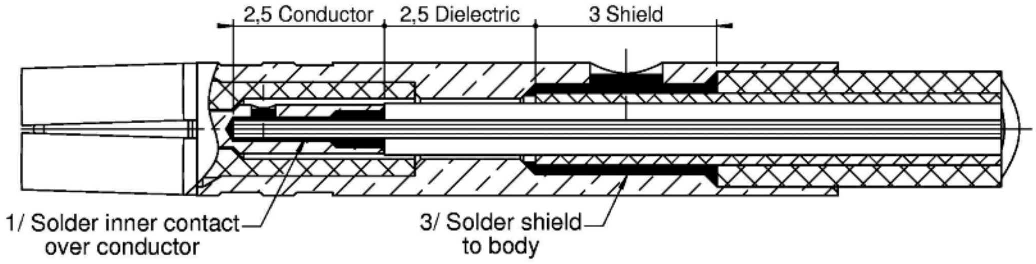


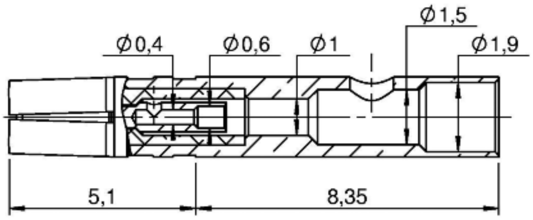
1/ Solder inner contact over conductor.
2/ Push cable with inner contact in body.
3/ Solder shield to body.

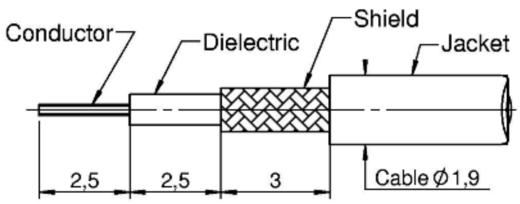


Loaded	Unloaded
1320ZZ	22-1320-ZZ

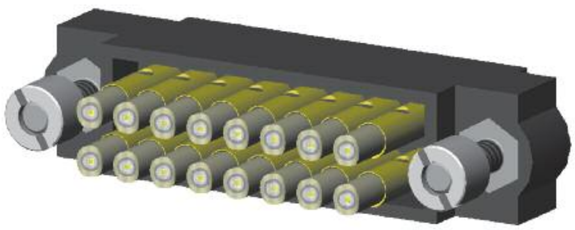
FEMALE STRAIGHT ON CABLE P/N 22-2320-ZZ

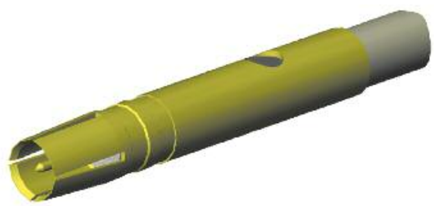






1/ Solder inner contact over conductor.
2/ Push cable with inner contact in body.
3/ Solder shield to body.

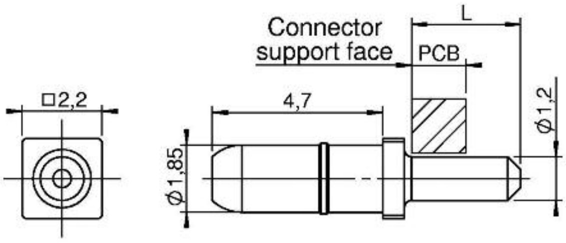




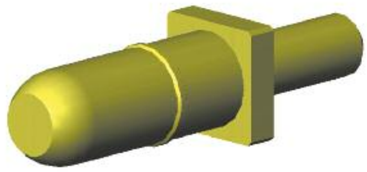
Loaded	Unloaded
2320ZZ	22-2320-ZZ

HP : High power contacts series 22

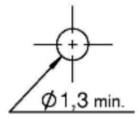
MALE STRAIGHT ON PCB P/N 22-3300-xx



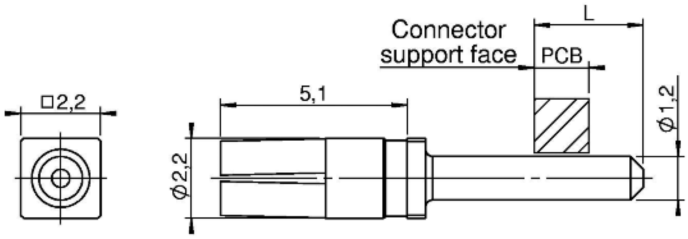
Loaded	Length L
330012	3 mm
330014	4,5 mm



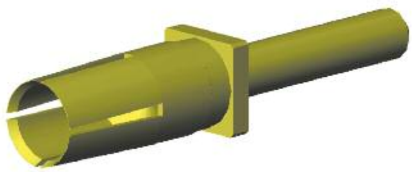
PCB Lay-out



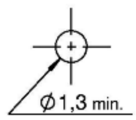
FEMALE STRAIGHT ON PCB P/N 22-4300-xx



Loaded	Length L
430012	3 mm
430014	4,5 mm

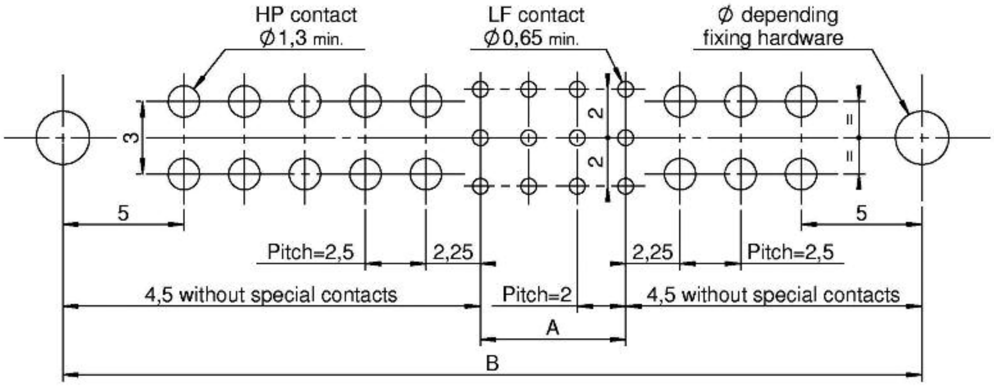


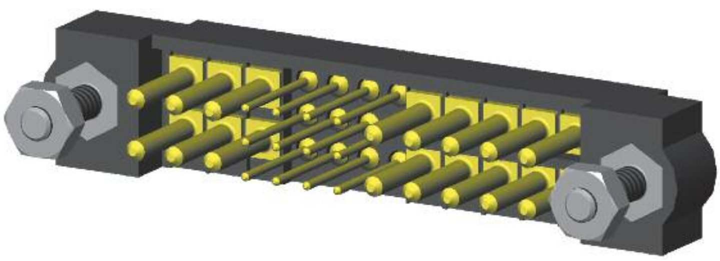
PCB Lay-out



PCB LAYOUT 22-3300-xx & 22-4300-xx

Shown looking onto mating face





$A = \left\{\frac{(nnx2)}{3}\right\} -2$

if yy and zz ≠ 0 :

$B = \left\{\left(\frac{(yy)+(zz)}{2}\right)-2\right\} x\ 2{,}5+14{,}5+A$

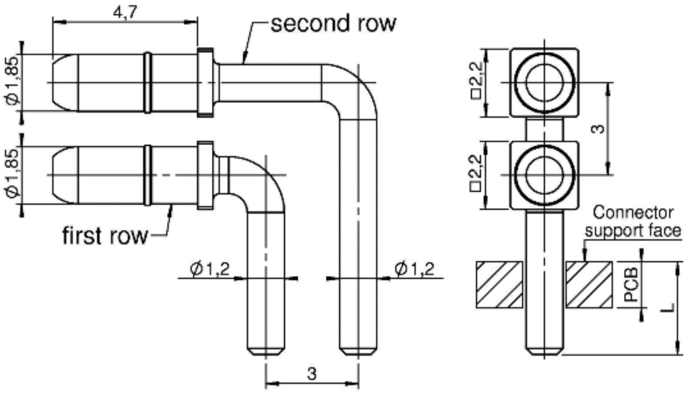
if yy or zz = 0 :

$B = \left\{\left(\frac{(yy)\ or\ (zz)}{2}\right)-1\right\} x\ 2{,}5+11{,}75+A$

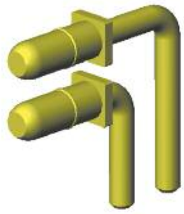
B max. = 87

HP : High power contacts series 22

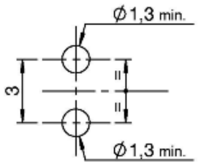
MALE 90° PCB P/N 22-3400-xx



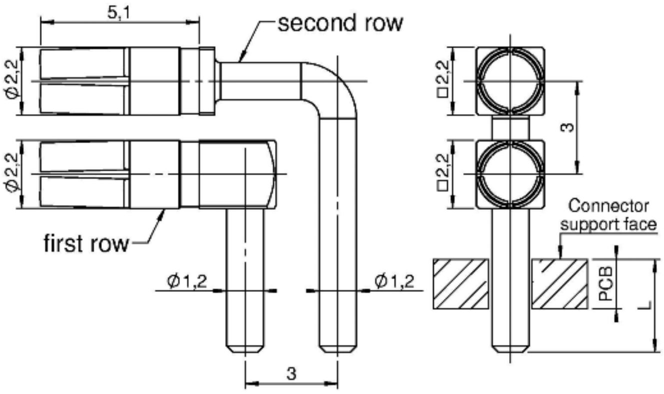
	Loaded		Loaded	Length L
First row	340012	it mounted in same connector	340002	3 mm
Second row	340022			
First row	340014	it mounted in same connector	340004	4,5 mm
Second row	340024			



PCB Lay-out

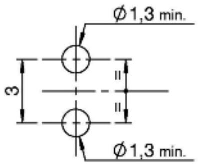


FEMALE 90° PCB P/N 22-4400-xx



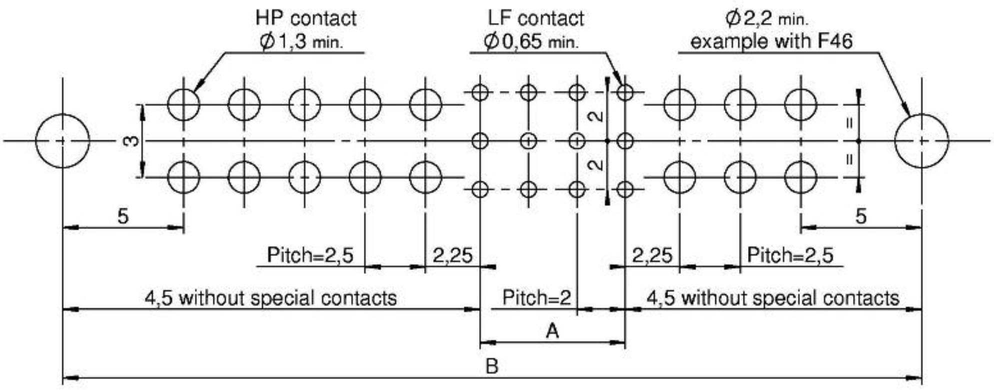
	Loaded		Loaded	Length L
First row	440012	it mounted in same connector	440002	3 mm
Second row	440022			
First row	440014	it mounted in same connector	440004	4,5 mm
Second row	440024			

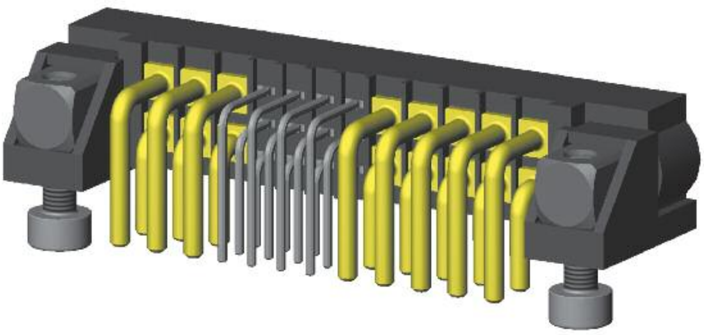
PCB Lay-out



PCB LAYOUT 22-3400-xx & 22-4400-xx

Shown looking onto mating face





$$A = \left\{\frac{(nnx2)}{3}\right\} - 2$$

if yy and zz ≠ 0 :

$$B = \left\{\left(\frac{(yy)+(zz)}{2}\right) - 2\right\} \times 2{,}5 + 14{,}5 + A$$

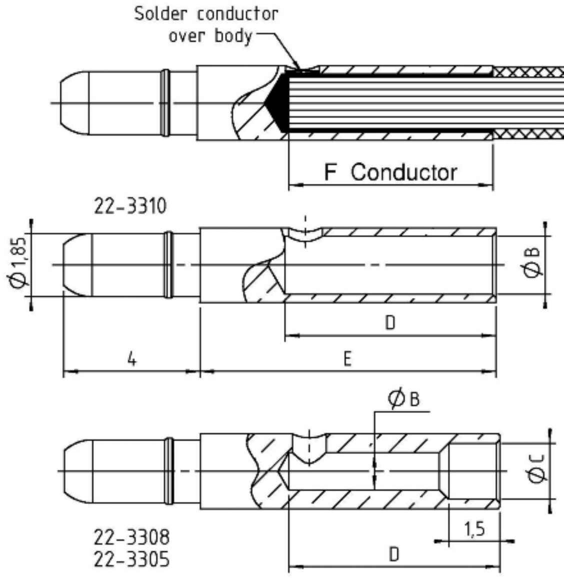
if yy or zz = 0 :

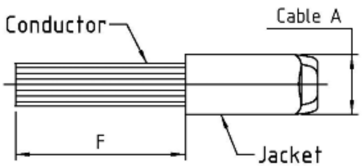
$$B = \left\{\left(\frac{(yy)\text{or}(zz)}{2}\right) - 1\right\} \times 2{,}5 + 11{,}75 + A$$

B max. = 87

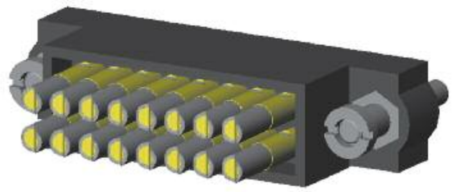
HP : High power contacts series 22

MALE STRAIGHT ON CABLE P/N 22-33XX (solder & crimp)





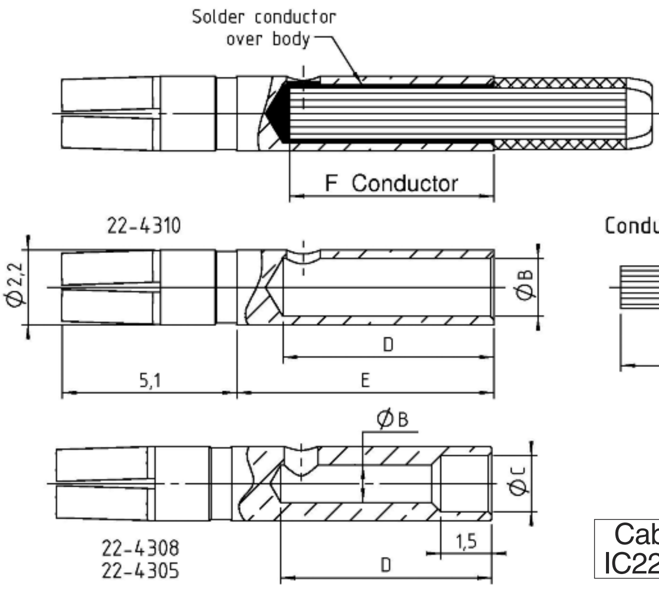
Cable assy instruction
IC22HP02 on page 121

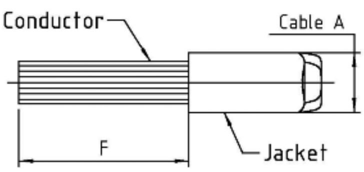


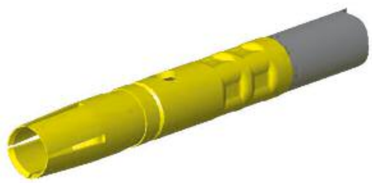
Loaded	Unloaded	Ampere	Cable A			ØB	ØC	Length D hole	Length E body	Length F conductor	Solder	Crimpby HX3 Hexagone size/Dies	Crimp by AF8
			AWG 20	AWG 18	AWG 16								
3305	22-3305	5A	X			1,1 mm	1,65 mm	6,2 mm	8,8 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
3308	22-3308	8A		X		1,35 mm	1,85 mm	6,2 mm	8,8 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
3310	22-3310	10A	X	X	X	1,7 mm		6,2 mm	8,8 mm	6 mm	OK	Hex. 1,9 mm/C14923*	OK

* only for AWG 16

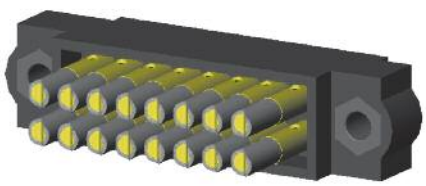
FEMALE STRAIGHT ON CABLE P/N 22-43XX (solder & crimp)







Cable assy instruction
IC22HP02 on page 121

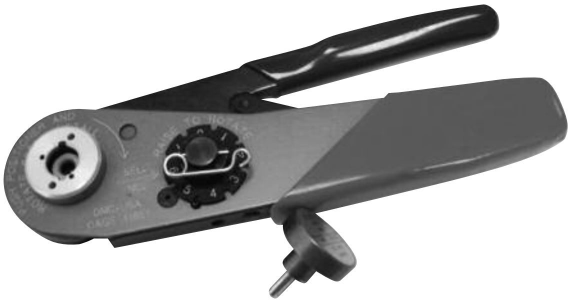


Loaded	Unloaded	Ampere	Cable A			ØB	ØC	Length D hole	Length E body	Length F conductor	Solder	Crimpby HX3 Hexagone size/Dies	Crimp by AF8
			AWG 20	AWG 18	AWG 16								
4305	22-4305	5A	X			1,1 mm	1,65 mm	6,2 mm	7,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
4308	22-4308	8A		X		1,35 mm	1,85 mm	6,2 mm	7,7 mm	4,5 mm	OK	Hex. 1,9 mm/C14923	OK
4310	22-4310	10A	X	X	X	1,7 mm		6,2 mm	7,7 mm	6 mm	OK	Hex. 1,9 mm/C14923*	OK

* only for AWG 16

DANIELS MH800 TOOL AND POSITIONER P/N K1131 & K1692

Tools reference	Barrel
DANIELS MH800 only	MH800
Positioner K1692 only	C12929
Positioner K1131 only	K1131
DANIELS MH800 & K1131	C12237
DANIELS MH800 & K1692	C14925

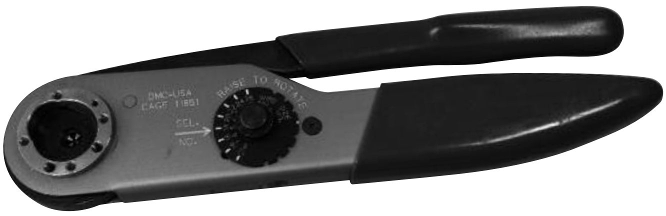


Crimp barrel accomodation for LF contacts					
Hand crimp tool reference	Positioner	Contacts type	Contacts reference	Wire size (AWG)	Crimp tool setting
DANIELS MH800	K1692	Male C	12960	22	6
DANIELS MH800	K1692	Male S	12969	24	7
DANIELS MH800	K1692	Male S	12969	26 & 28	6
DANIELS MH800	K1692	Female C	C13064-P	22	6
DANIELS MH800	K1692	Female S	C12468	24	7
DANIELS MH800	K1692	Female S	C12468	26 & 28	6

Crimp barrel accomodation for central contact HF30 series			
Hand crimp tool reference	Positioner	Conductor	Crimp tool setting
DANIELS MH800	K1131	Ø 0,30	2 & 3
DANIELS MH800	K1131	Ø 0,50	3 & 4

DANIELS AF8 TOOL P/N 16459

Tools reference	Reference Nicomatic
DANIELS AF8 only	16459
DANIELS AF8 + C16460	C16462
DANIELS AF8 + C16461	C16463



Crimp barrel accomodation for crimping HP contact		
Hand crimp tool reference	Positioner	HP contact serie
DANIELS AF8	C16460	30
DANIELS AF8	C16461	22

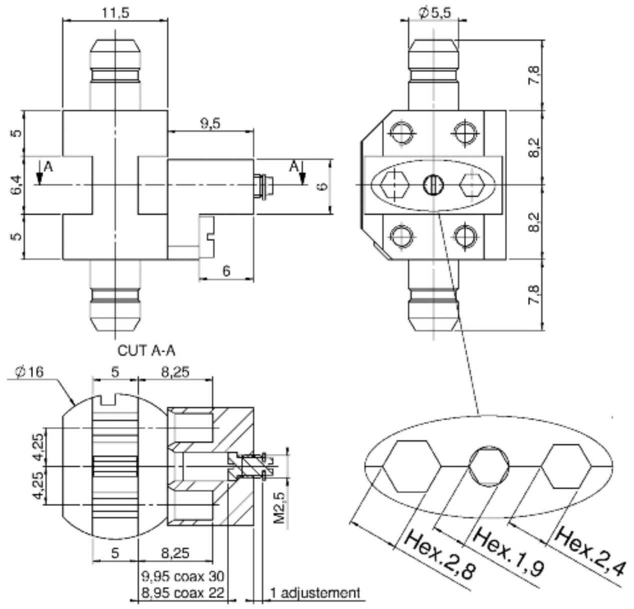
Tools

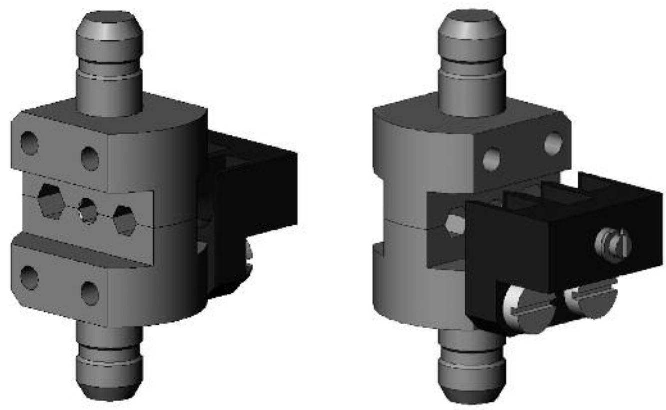
DANIELS HX3 TOOL P/N 13858

Tools reference	Reference Nicomatic
DANIELS HX3 only	13858
DANIELS HX3 & C13847	C12238
DANIELS HX3 & C14680	C14770

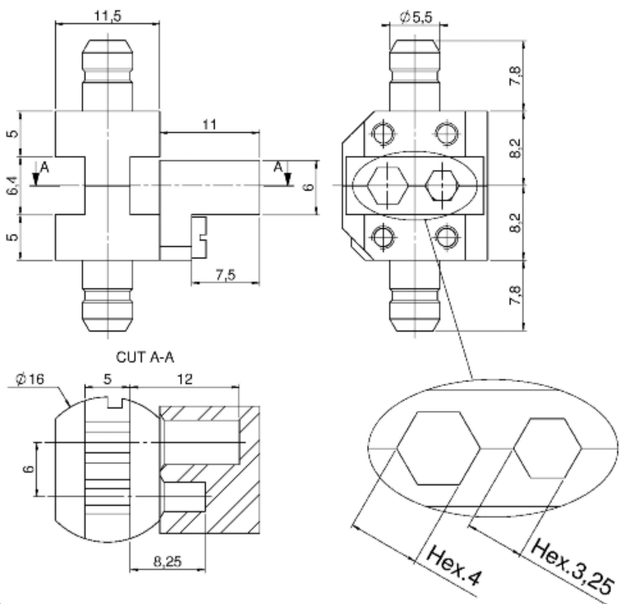
Crimp barrel accomodation for crimping coaxial contact shield		
Hand crimp tool reference	Dies	Hexagonal imprint
DANIELS HX3	C13847	Hex. 1,9 / Hex. 2,4 / Hex. 2,8
DANIELS HX3	C14680	Hex. 3,25 / Hex. 4

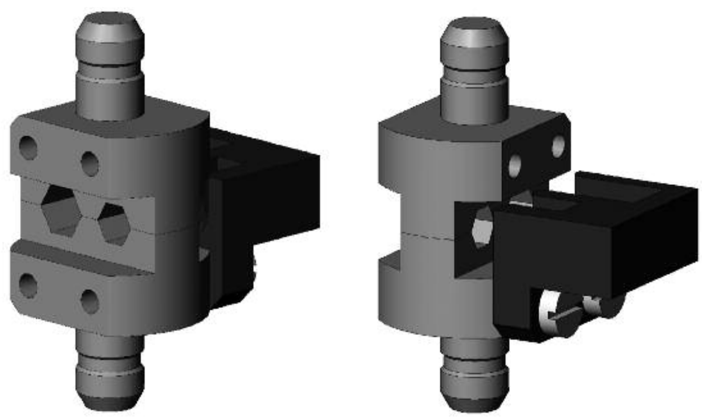
CRIMP DIE C13847 FOR DANIELS HX3 TOOL (HF CONTACT)





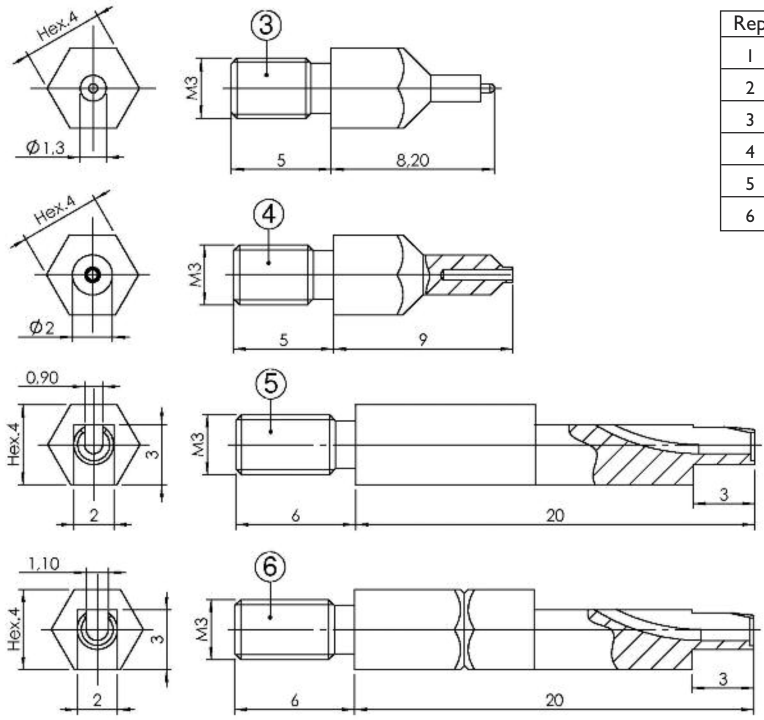
CRIMP DIE C14680 FOR DANIELS HX3 TOOL (HF CONTACT)



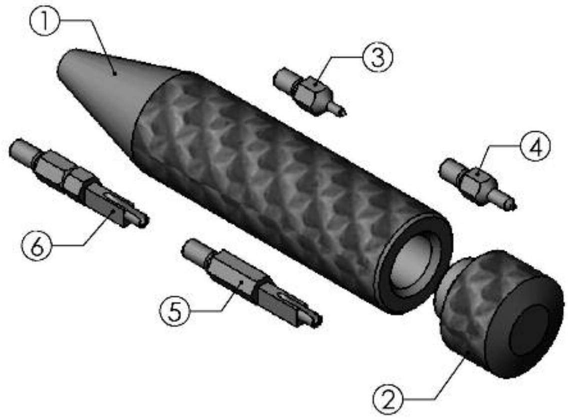


Tools

LF CONTACTS INSERTION & WITHDRAWAL TOOL P/N C12935

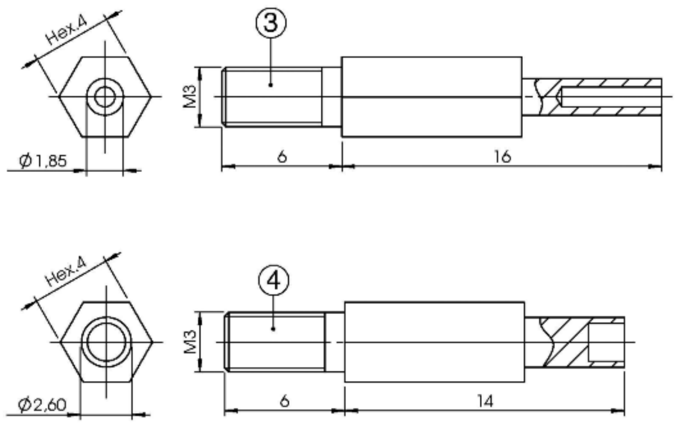


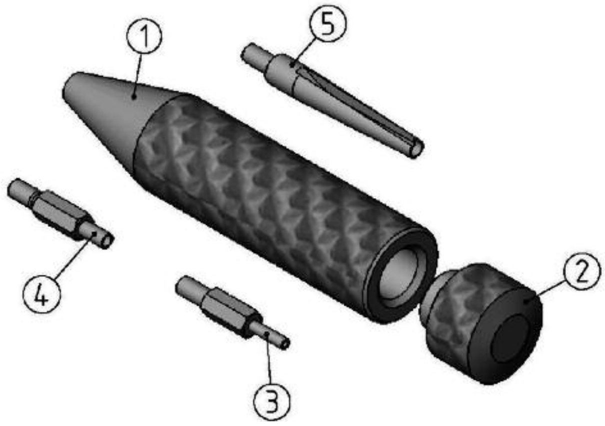
Rep	Reference	Assembly C12935
1	13241	Body
2	13240	Plug
3	13170	Female contact extraction tip
4	13242	Male contact extraction tip
5	13171	24-28 AWG insertion tip
6	13712	22 AWG insertion tip



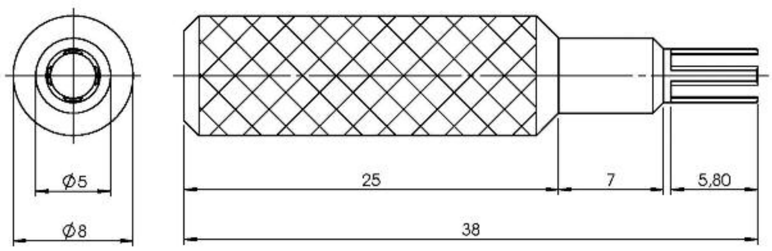
HF / HP SERIES 22 CONTACTS REMOVAL P/N C13997

Rep	Reference	Assembly C13997
1	13241	Body
2	13240	Plug
3	13995	Female contact extraction tip
4	13996	Male contact extraction tip
5	16139	Male & female contact insertion tool



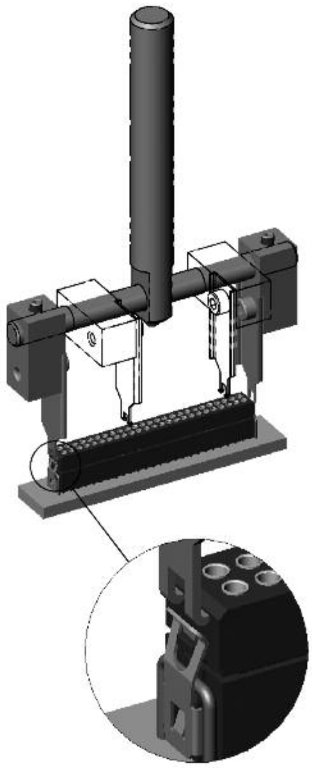


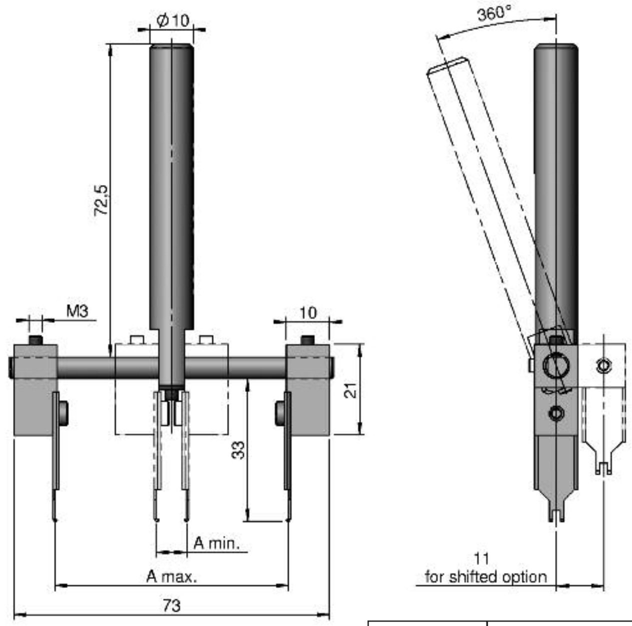
HF / HP SERIES 30 CONTACTS REMOVAL P/N 12368



Tools

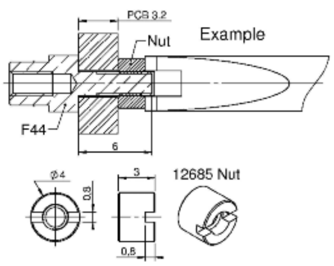
LATCH SEPARATION TOOL P/N C14790

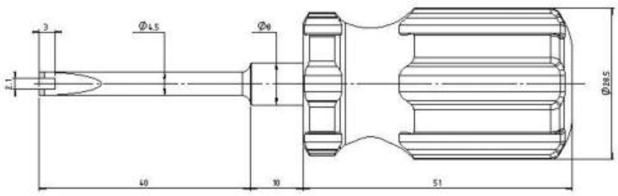




Series	A max.		A min.	
	A max.	LF contacts	A min.	LF contacts
CMM 100	53	25	7	2
CMM 200	53	50	7	4

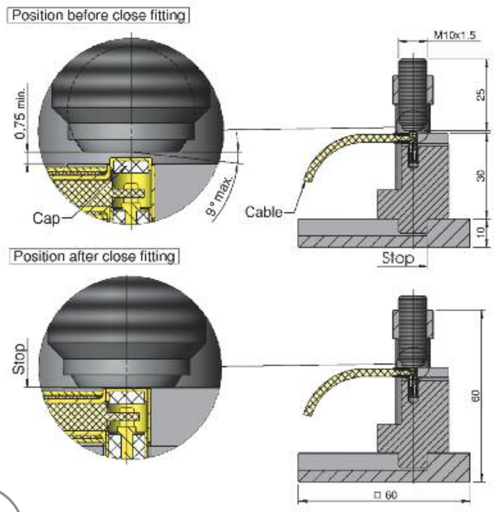
SCREWDRIVER P/N C14743 FOR NUT P/N 12685





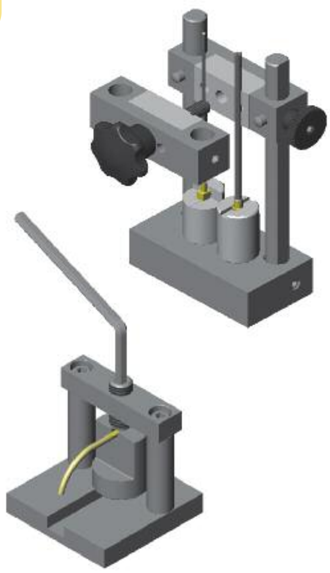
Optional: dynamometric screwdriver specifically designed for low torques (includes bits & adjusting key).

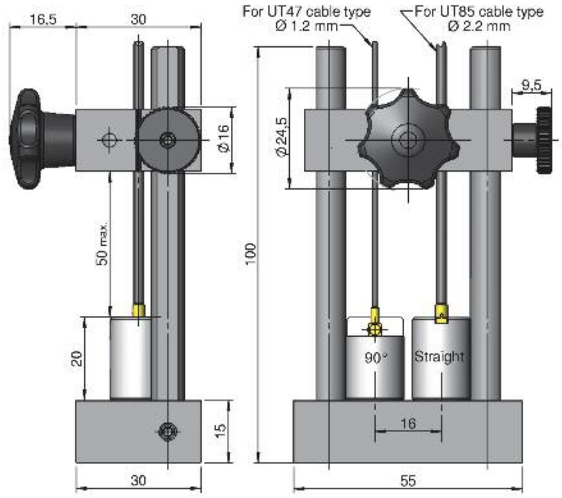
MOUNTING OF C14772 BACK CAPS



Hex. 5mm Tool not delivered

SUCOFLEX SOLDER TOOL P/N C14777

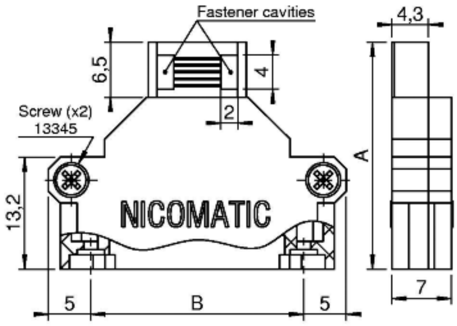




Accessories

STRAIGHT COVER FOR CMM SERIES 220 (male & female)
P/N CMM-C2-XX (other upon request)

Material : high temp. thermoplastic (-55°C to +200°C)



Length B in mm
(distance between fixing hardware axies)

CMM-C2-

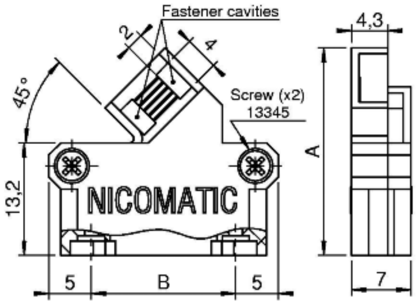
CMM 220 series

Reference	Length B	Length A	Screw (x2)
CMM-C2-11	11 mm	23,7 mm	included
CMM-C2-15	15 mm	23,7 mm	
CMM-C2-17	17 mm	17,2 mm	
CMM-C2-25	25 mm	26,7 mm	
CMM-C2-27	27 mm	26,7 mm	
CMM-C2-31	31 mm	29,7 mm	
CMM-C2-39	39 mm	29,7 mm	
CMM-C2-45	45 mm	33,7 mm	
CMM-C2-47	47 mm	33,7 mm	
CMM-C2-49	49 mm	33,7 mm	
CMM-C2-53	53 mm	33,7 mm	
CMM-C2-55	55 mm	33,7 mm	

Note: F28 and M18 fixings are not included with the cover

45° COVER FOR CMM SERIES 220 (male & female)
P/N CMM-C2-XX-45 (upon request)

Material : high temp. thermoplastic (-55°C to +200°C)



Length B in mm
(distance between fixing hardware axies)

CMM-C2- -45

CMM 220 series

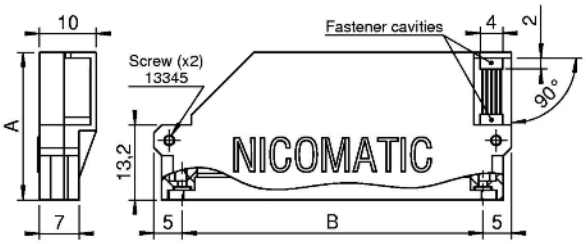
45 for exit 45°

Reference	Length B	Length A	Screw (x2)
CMM-C2-17-45	17 mm	24,4 mm	Included

CMM220 male F28 fixing not included with cover
CMM220 female M18 fixing not included with cover

90° COVER FOR CMM SERIES 220 (male & female)
P/N CMM-C2-XX-90 (upon request)

Material : high temp. thermoplastic (-55°C to +200°C)



Length B in mm
(distance between fixing hardware axies)

CMM-C2- -90

CMM 220 series

90 for exit 90°

Reference	Length B	Length A	Screw (x2)
CMM-C2-53-90	53 mm	26 mm	Included

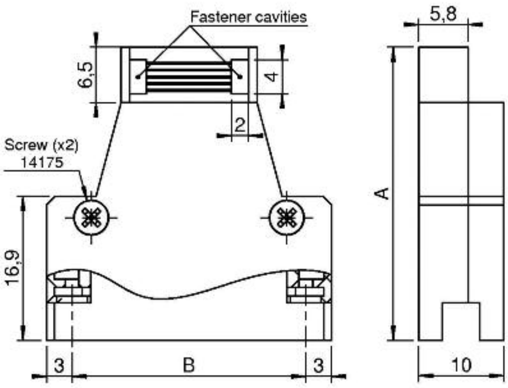
CMM220 male F28 fixing not included with cover
CMM220 female M18 fixing not included with cover

Note: Aluminum covers are available upon request. Contact us.

Accessories

COVERS STRAIGHT FOR CMM SERIES 320 & 340 (male & female)
P/N CMM-C3-XX.X

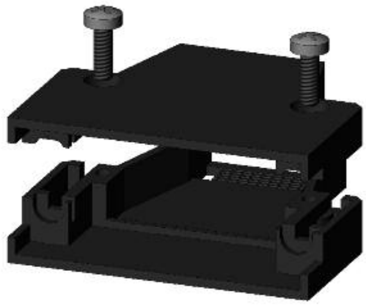
Material : high temp. thermoplastic (-55°C to +200°C)



Length B in mm
(distance between fixing hardware axies)

C M M - C 3 - _ _ . _

CMM series 320 & 340

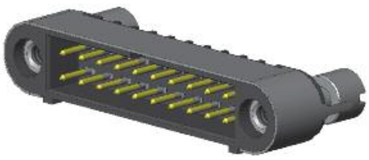


Reference	Length B	Length A	Screw (x2)
CMM-C3-27.5	27,5 mm	34,4 mm	Included
CMM-C3-45.0	45,0 mm	34,4 mm	

For CMM320/340 male & female
M45 or F57 fixing not included with cover

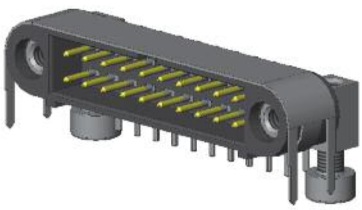
Other upon request

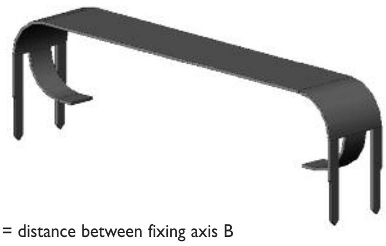
SHIELDING FOR CMM SERIES 220 (male straight on PCB)
P/N 12997-XX (upon request)



XX = distance between fixing axis B

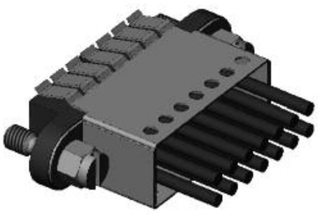
SHIELDING FOR CMM SERIES 220 (male 90° on PCB)
P/N 12998-XX (upon request)

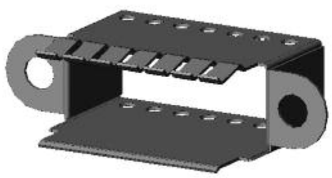




XX = distance between fixing axis B

SHIELDING FOR CMM SERIES 220 (female on cable)
P/N C13024-XX (upon request)





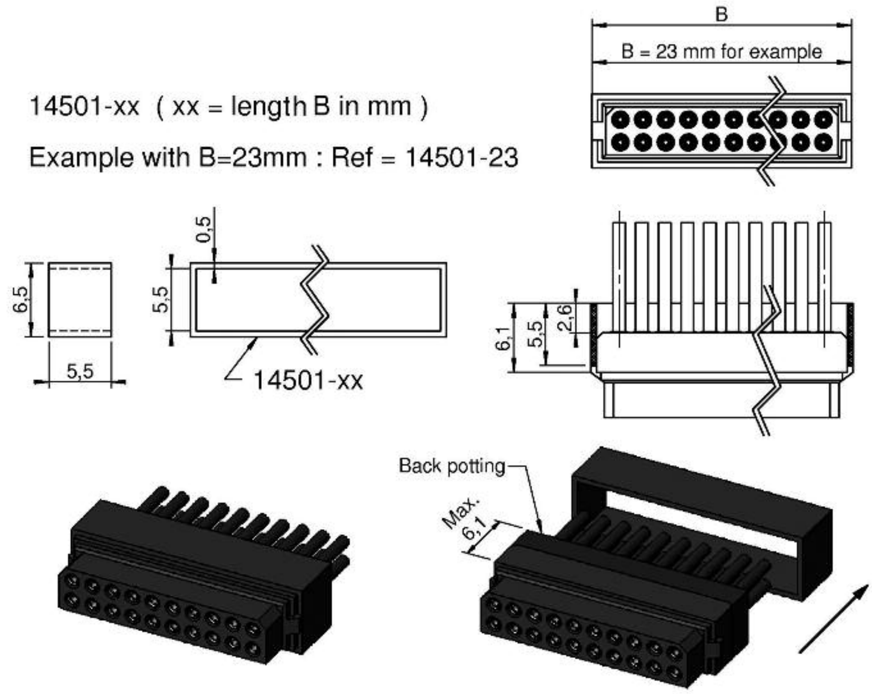
XX = distance between fixing axis B

Accessories

BACKPOTTING SHAPE FOR CMM SERIES 200 (female) P/N 14501-XX

Material : thermoplastic 100°C max.

Reference	Length B
14501-07	min. 7 mm
14501-09	9 mm
14501-11	11 mm
14501-13	13 mm
14501-15	15 mm
14501-17	17 mm
14501-19	19 mm
14501-21	21 mm
14501-23	23 mm
14501-25	25 mm
14501-27	27 mm
14501-29	29 mm
14501-31	31 mm
14501-33	33 mm
14501-35	35 mm
14501-37	37 mm
14501-39	39 mm
14501-41	41 mm
14501-43	43 mm
14501-45	45 mm
14501-47	47 mm
14501-49	49 mm
14501-51	51 mm
14501-53	max. 53 mm

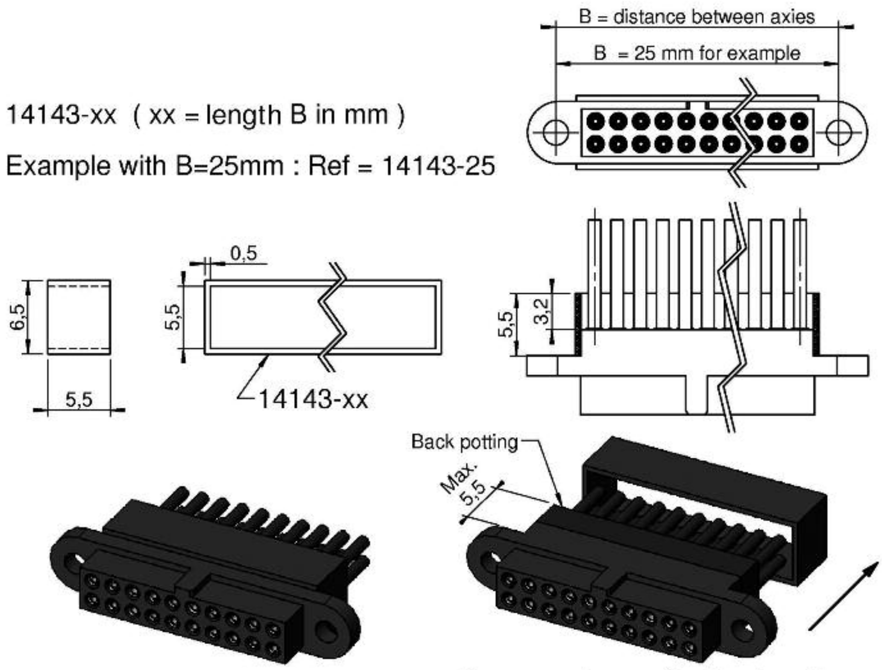


Remove shape after back potting

BACKPOTTING SHAPE FOR CMM SERIES 220 (male & female) P/N 14143-XX

Material : thermoplastic 100°C max.

Reference	Length B
14143-09	min. 9 mm
14143-11	11 mm
14143-13	13 mm
14143-15	15 mm
14143-17	17 mm
14143-19	19 mm
14143-21	21 mm
14143-23	23 mm
14143-25	25 mm
14143-27	27 mm
14143-29	29 mm
14143-31	31 mm
14143-33	33 mm
14143-35	35 mm
14143-37	37 mm
14143-39	39 mm
14143-41	41 mm
14143-43	43 mm
14143-45	45 mm
14143-47	47 mm
14143-49	49 mm
14143-51	51 mm
14143-53	53 mm
14143-55	55 mm
14143-57	57 mm
14143-59	59 mm
14143-61	61 mm
14143-63	63 mm
14143-65	max. 65 mm



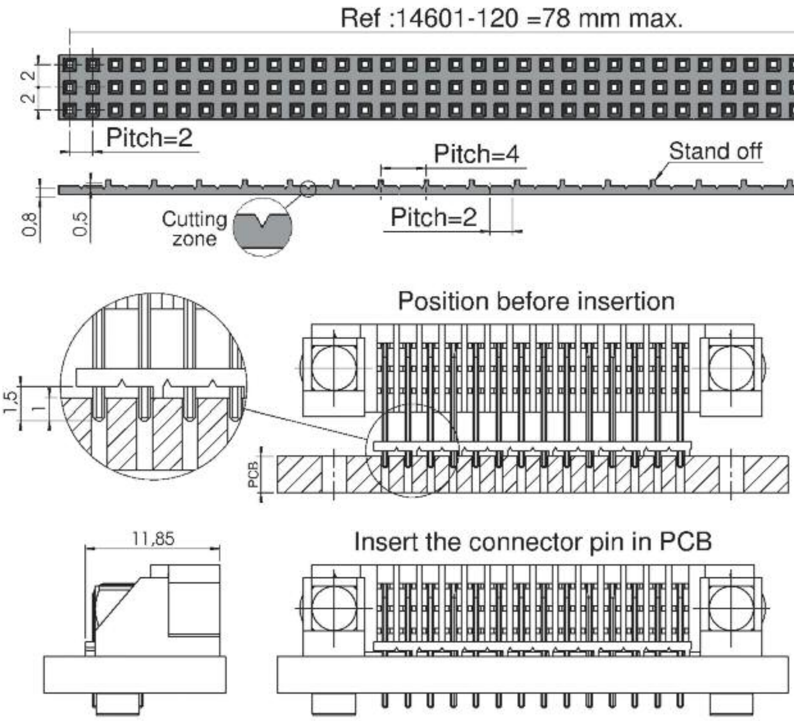
Remove shape after back potting

Note: Special housing with integrated backpotting available upon request.

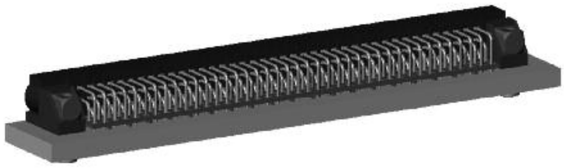
Accessories

CONTACTS ALIGNMENT PLATE P/N 14601-120

Material : high temperature thermoplastic (-55°C to +200°C)



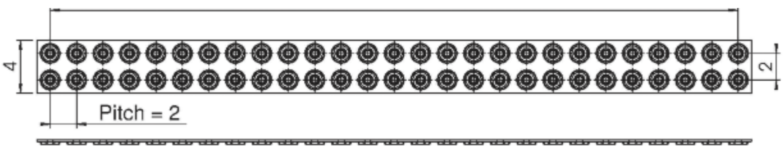
Divisible



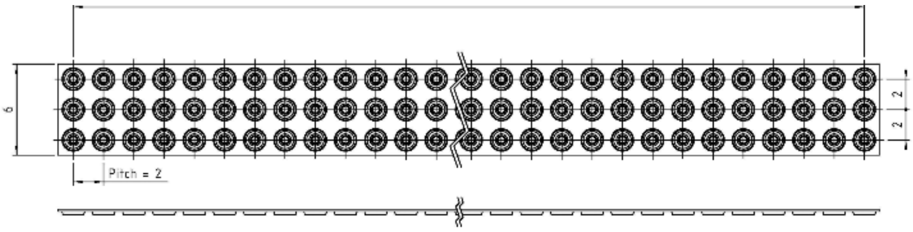
Note : systematically delivered and mounted on the CMM 320 series "right angle" (V and VL types)

SILICON INTERFACIAL SEAL (for male connector except S-C types)

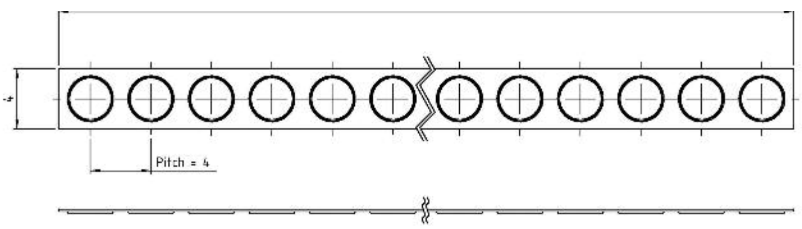
LF 220 series P/N 14599-54 = 52 mm max.



LF 320 series P/N 14980-120 = 78 mm max.



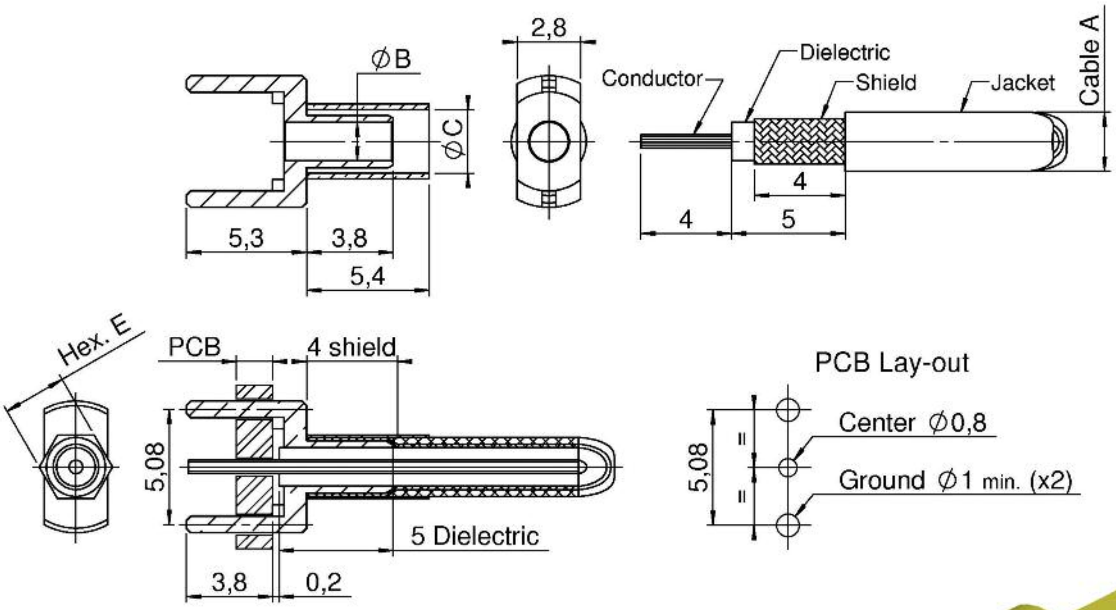
Special contacts 220 series P/N 16053-15 = 60,2 mm max.

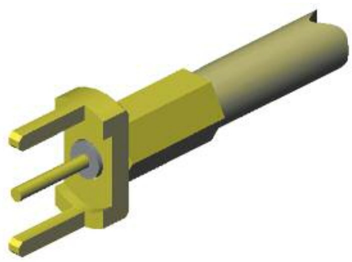


Mix-layout on request

Accessories

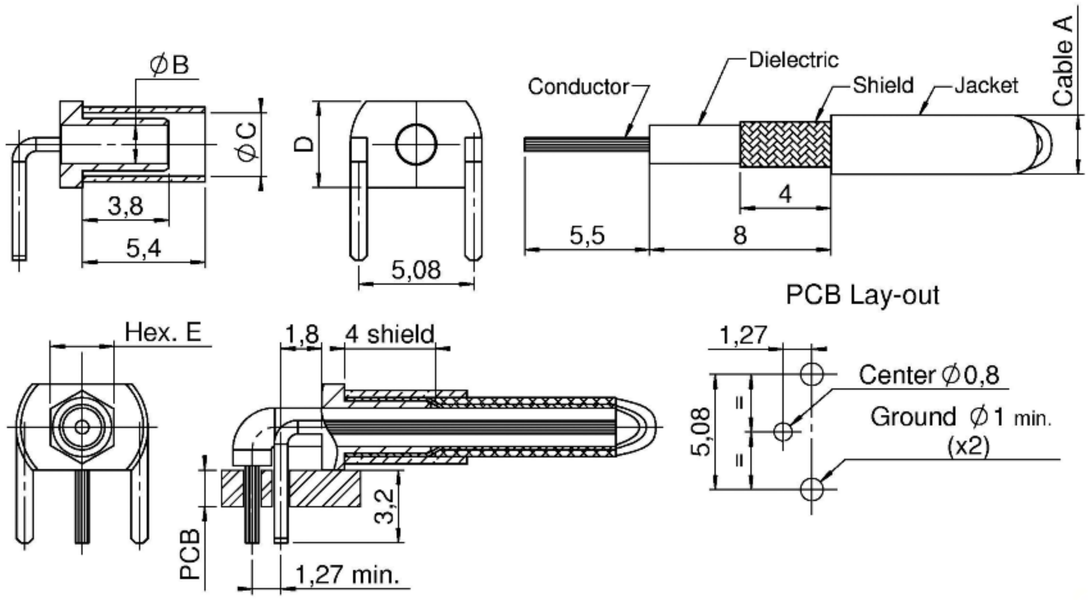
COAX CABLE CRIMP TERMINATION
(straight for cables Ø 2 and Ø 2,7)

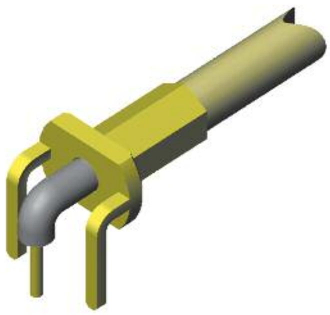




	C14759	C14760
Cable A	Ø 2	Ø 2,7
Ø B	1 mm	1,7 mm
Ø C	2,2 mm	2,8 mm
Hex. E	2,4 on flat	2,8 on flat

COAX CABLE CRIMP TERMINATION
(90° for cables Ø 2 and Ø 2,7)



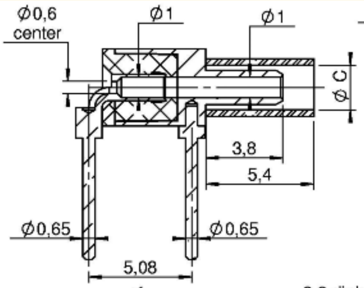


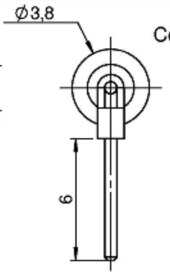
	C14761	C14762
Cable A	Ø 2	Ø 2,7
Ø B	1 mm	1,7 mm
Ø C	2,2 mm	2,8 mm
Length D	3,4 mm	3,8 mm
Hex. E	2,4 on flat	2,8 on flat

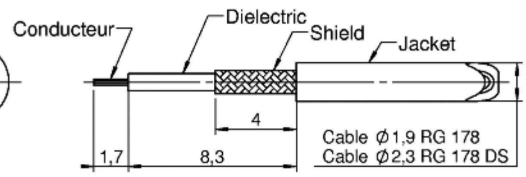
Accessories

COAX CABLE CRIMP TERMINATION

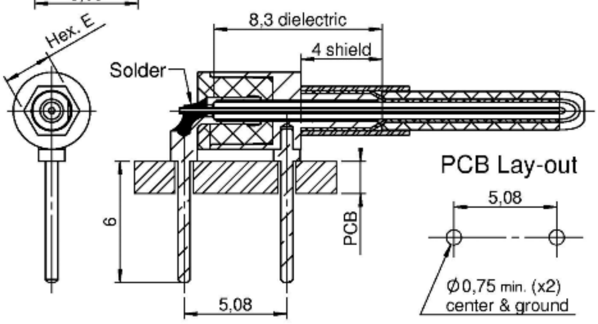
P/N C13313 for RG 178 and P/N C14765 for RG 178 DS

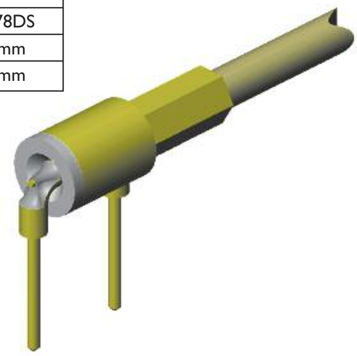






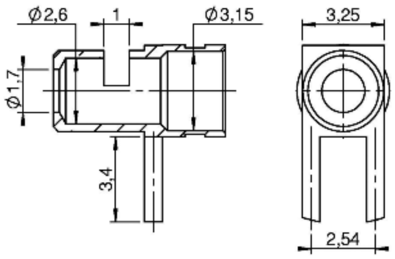
	C13313	C14765
	RG178	RG178DS
Ø C	2,2 mm	2,8 mm
Hex. E	2,4 mm	2,8 mm

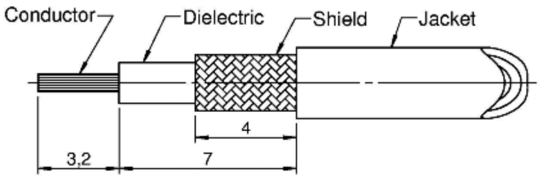


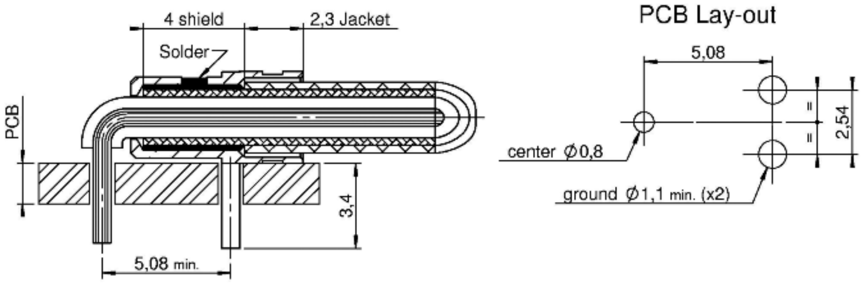


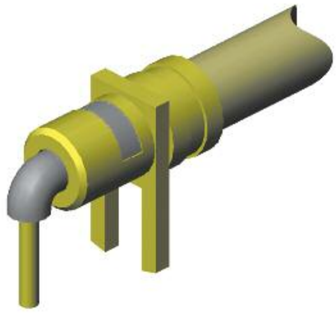
COAX CABLE CRIMP TERMINATION

P/N C12780 for cables RG 316



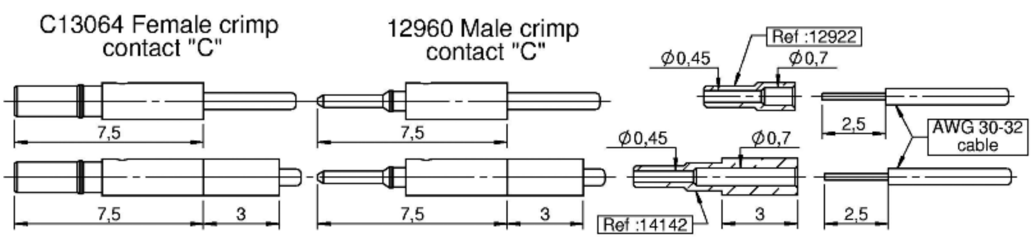


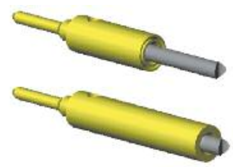


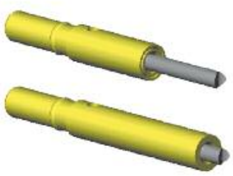


CRIMP GAUGE REDUCER

for awg 30-32 for LF contacts P/N 12922 & 14142



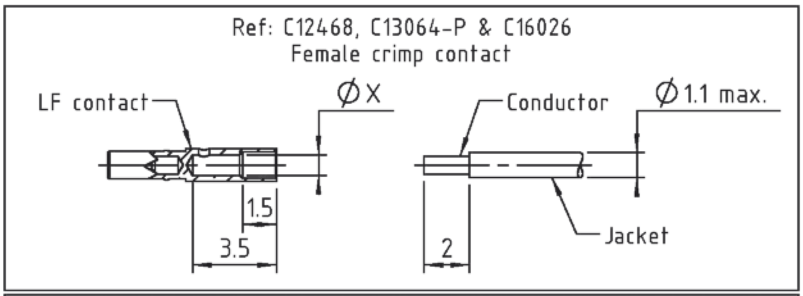


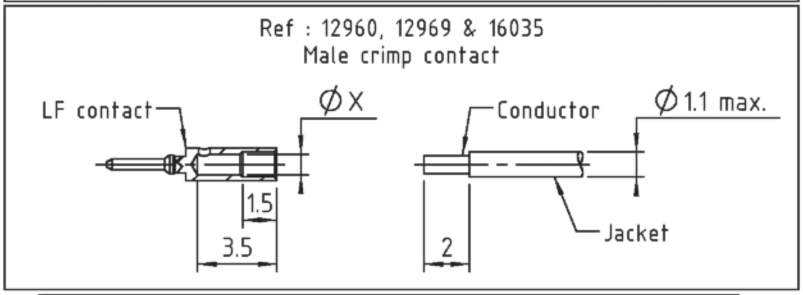


Gender	Contact "C"	Reducer	Tool	Positioner	Position 1st crimp	Position 2nd crimp
Male Female	12960 C13064-P	12922	MH800	K1692	Contact + reducer + cable position "4"	
Male Female	12960 C13064-P	14142	MH800	K1692	Reducer + cable position "8"	(Reducer & cable) + contact position "4"

Cable instructions (ICLF01)

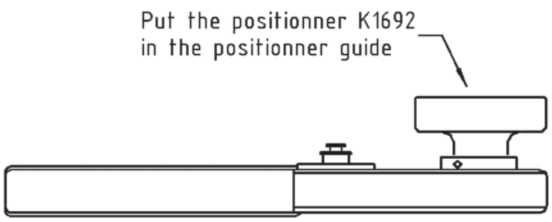
Diameter X	
Reference	X
12969	0.7
16035	
C12468	
C16026	
12960	0.9
C13064-P	

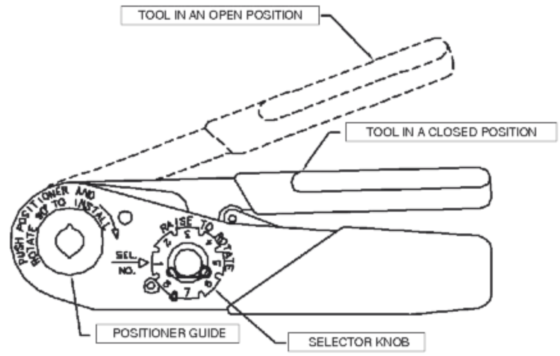




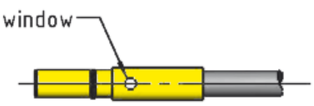
Crimp barrel accommodation					
Contact		Wire size	Tool		
Reference	Type	(AWG)	Hand crimp tool reference	Positioner	Crimp tool setting
12960	Male C	22	DANIELS MH800	K1692	6
12969 16035	Male S	24			7
12969 16035	Male S	26 & 28			6
C13064-P	Female C	22			6
C12468 C16026	Female S	24			7
C12468 C16026	Female S	26 & 28			6

1 - Set the Hand crimp tool according to Crimp barrel accommodation table above
 1.1 - Select the crimp tool setting with the selector knob.
 1.2 - Put the Positioner K1692 in the positioner guide.





2 - Check the wire stripping
 2.1 - Insert the Wire in the contact
 2.2 - The conductor must be visible through the inspection window of the contact



3 - Insert the contact and Wire assembly in the crimp guide of the hand crimp tool
 3.1 - In the crimp guide, the contact and Wire assembly must be in the end stop position
 3.2 - During the crimping, keep the wire in position
 3.3 - Just one crimping operation is allowed per contact and wire assembly

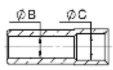
4 - Visually check the crimping
 4.1 - The crimping must not deform the inspection window
 4.2 - The contact must not have visible fractures or cracks
 4.3 - The contact barrel must not be deformed or bent

5 - Check the contact is firmly crimped, by pulling gently
 5.1 - For that purpose two (2) fingers are enough : pinch the wire and pull smoothly along the axis of the crimped contact.

Cable instructions

				HF contacts			Connection mode		
	Supplier	P/N	Ø Cable	Series	Gender	Ref. contact	Central contact	Shield	Impedance
Special	Nexans (Axon *)	50VMTX (SM 50 *)	1,2 mm	HF30	Male	30-1312-ZS-01	Solder	Crimped Hex. 1,9 mm	50 Ohm
						(30-1312-ZS-02 *)			
						30-1412-ZS			
					Female	30-2312-ZS-01			
						(30-2312-ZS-02 *)			
						30-2412-ZS			
				HF22	Male	22-1312-ZS-01			
						(22-1312-ZS-02 *)			
					Female	22-2312-ZS-01			
						(22-2312-ZS-02 *)			
		75VMTX (SM 75 *)	1,2 mm	HF30	Male	30-1312-ZS-75-01	Solder	Crimped Hex. 1,9 mm	75 Ohm
						(30-1312-ZS-75-02 *)			
						30-1412-ZS-75			
					Female	30-2312-ZS-75-01			
						(30-2312-ZS-75-02 *)			
						30-2412-ZS-75			
				HF22	Male	22-1312-ZS-75-01			
						(22-1312-ZS-75-02 *)			
					Female	22-2312-ZS-75-01			
						(22-2312-ZS-75-02 *)			
	Axon RG 178 DT	P500955	2,3 mm	HF30	Male	30-1320-DS	On choice	Crimped Hex. 2,8 mm	50 Ohm
						30-1420-DS	Solder		
					Female	30-2320-DS	On choice		
						30-2420-DS	Solder		
	Axon PTFE Cellular	P 812817	2,3 mm	HF30	Male	30-1324-DS	On choice	Crimped Hex. 2,8 mm	50 Ohm
						30-1424-DS	Solder		
					Female	30-2324-DS	On choice		
						30-2424-DS	Solder		
		P 804298 B	2,4 mm	HF30	Male	30-1324-DS-75	On choice	Crimped Hex. 2,8 mm	75 Ohm
						30-1424-DS-75	Solder		
					Female	30-2324-DS-75	On choice		
						30-2424-DS-75	Solder		
	Axon RG 316 DT	P0530912	2,7 mm	HF30	Male	30-1326-DS	On choice	Crimped Hex. 3,25 mm	50 Ohm
						30-1426-DS	Solder		
					Female	30-2326-DS	On choice		
						30-2426-DS	Solder		
	Axon RG 179 DT	P530268	3 mm	HF30	Male	30-1326-DS-75	On choice	Crimped Hex. 3,25 mm	75 Ohm
						30-1426-DS-75	Solder		
					Female	30-2326-DS-75	On choice		
						30-2426-DS-75	Solder		

DT = DS (Double Shield)

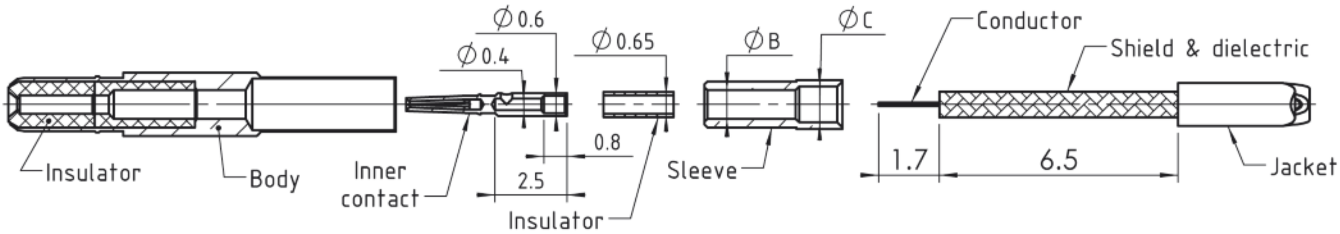
	ØB	ØC	Sleeve
P/N terminal -01 for 50VMTX cable type	1 mm	1,25 mm	
P/N terminal -02 for SM 50 cable type	0,85 mm	1,15 mm	

Cable instructions

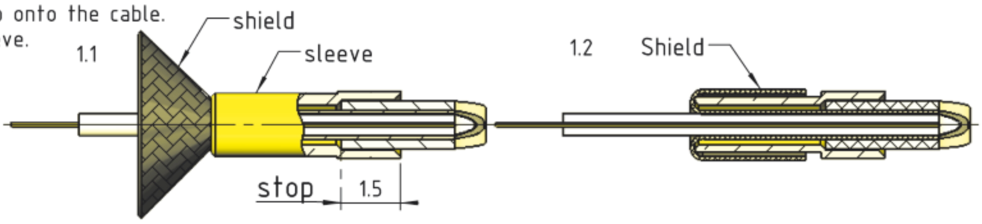
	Normes			HF contacts			Connection mode		
	MIL-C-17	NF C93-550	Ø Cable	Series	Gender	Ref. contact	Central contact	Shield	Impedance
Coax cable	RG 178	KX 21 A	2 mm	HF30	Male	30-1320-SS	Crimped	Crimped Hex. 2,4 mm	50 Ohm
						30-1320-ZS	Solder		
						30-1420-ZS			
					Female	30-2320-SS	Crimped		
						30-2320-ZS	Solder		
						30-2420-ZS			
				HF22	Male	22-1320-ZZ		Solder	
					Female	22-2320-ZZ			
	RG 316	KX 22 A	2,7 mm	HF30	Male	30-1326-SS	Crimped	Crimped Hex. 2,8 mm	50 Ohm
						30-1326-ZS	Solder		
						30-1426-ZS			
					Female	30-2326-SS	Crimped		
						30-2326-ZS	Solder		
						30-2426-ZS			
	RG 174	KX 3 B	2,7 mm	HF30	Male	30-1326-SS	Crimped	Crimped Hex. 2,8 mm	50 Ohm
						30-1326-ZS	Solder		
						30-1426-ZS			
					Female	30-2326-SS	Crimped		
						30-2326-ZS	Solder		
						30-2426-ZS			
	RG 179		2,7 mm	HF30	Male	30-1326-SS-75	Crimped	Crimped Hex. 2,8 mm	75 Ohm
						30-1326-ZS-75	Solder		
						30-1426-ZS-75			
					Female	30-2326-SS-75	Crimped		
						30-2326-ZS-75	Solder		
						30-2426-ZS-75			

				HF contacts			Connection mode		
	Supplier	P/N	Ø Cable	Series	Gender	Ref. contact HF	Central contact	Shield	Impedance
Semi-rigid		UT47	1,2 mm	HF30	Male	30-1347-ZZ	Solder	Solder	50 Ohm
						30-1447-ZZ			
					Female	30-2347-ZZ			
						30-2447-ZZ			
	(Axon *)	UT85 (QFX 86 SPCW *)	2,2 mm	HF30	Male	30-1385-ZZ	Solder	Solder	50 Ohm
						30-1485-ZZ			
					Female	30-2385-ZZ			
						30-2485-ZZ			

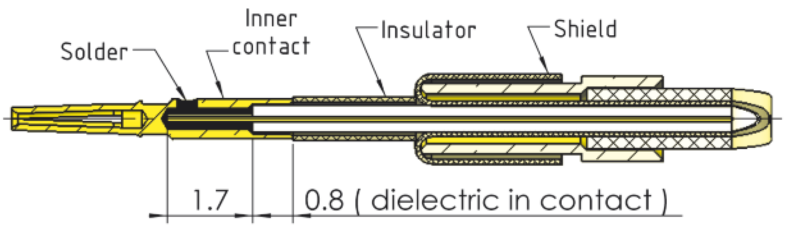
Cable instructions (IC22HF01)



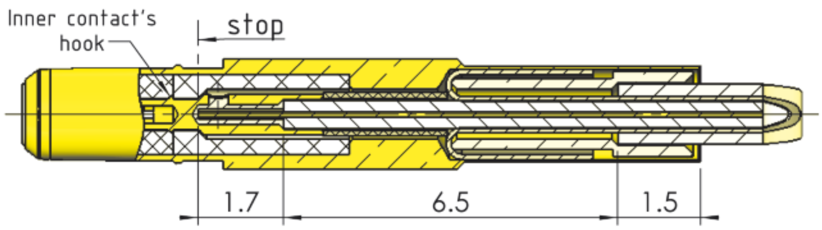
1/ 1.1 - Thread the sleeve until stop onto the cable.
1.2 - Place the shield on the sleeve.



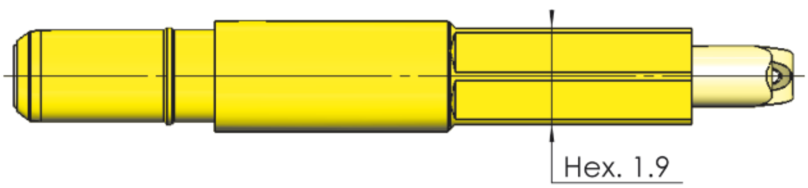
2/ - Thread the insulator.
- Solder the inner contact on the conductor.

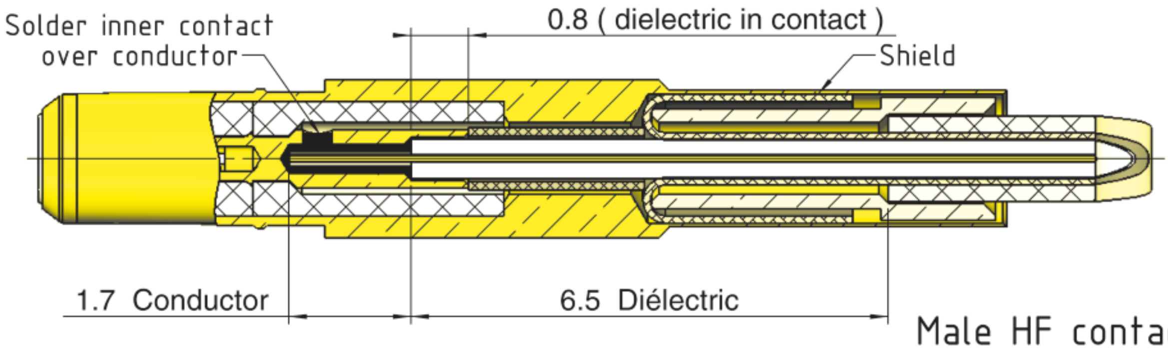


3/ - Thread to the body.
- Beware that the inner contact's hook goes entirely through the body's insulator

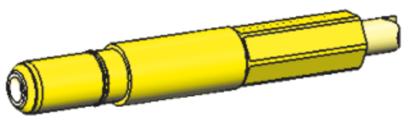


4/ CRIMP :
- Tool : DANIELS HX3
- Die : C13847
- Position : 8.95 coax 22
- Hexagone : 1.9mm / plats



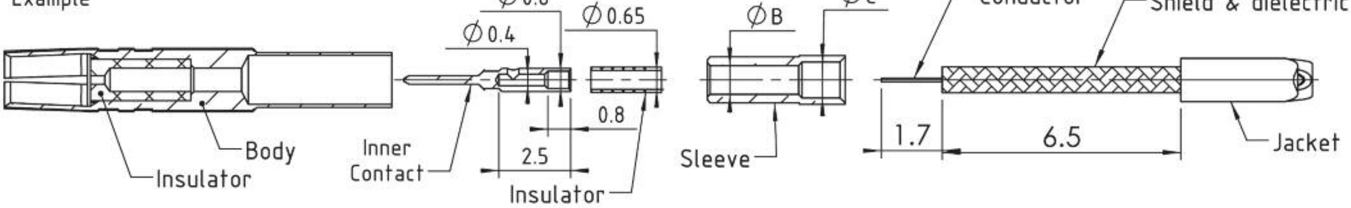


Male HF contact



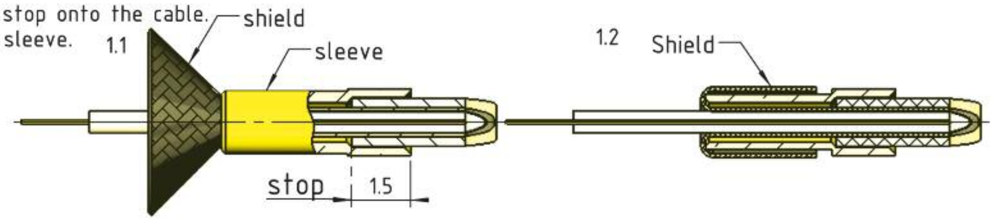
Cable instructions (IC22HF02)

Example



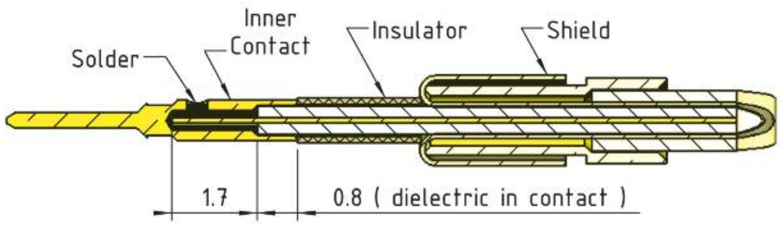
1/ 1.1 - Thread the sleeve until stop onto the cable.

1.2 - Place the shield on the sleeve.



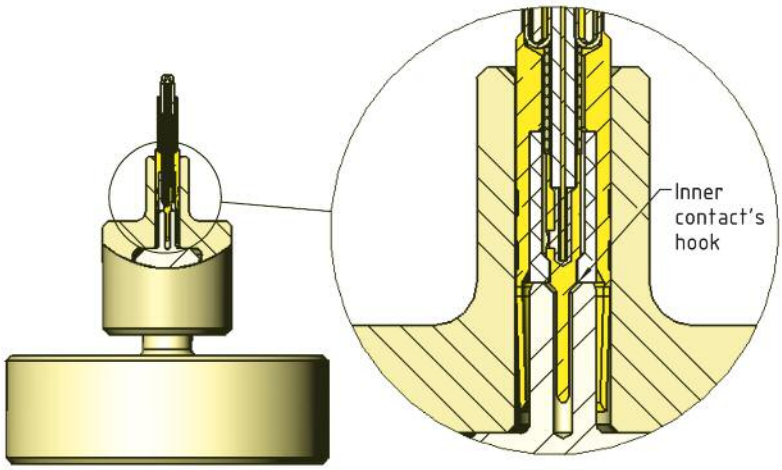
2/ - Thread the insulator.

- Solder the inner contact on the conductor.



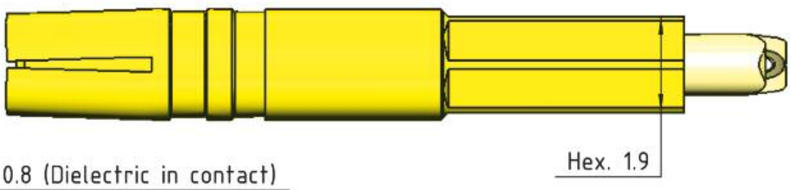
3/ - Put the contact body in the tool C16447.

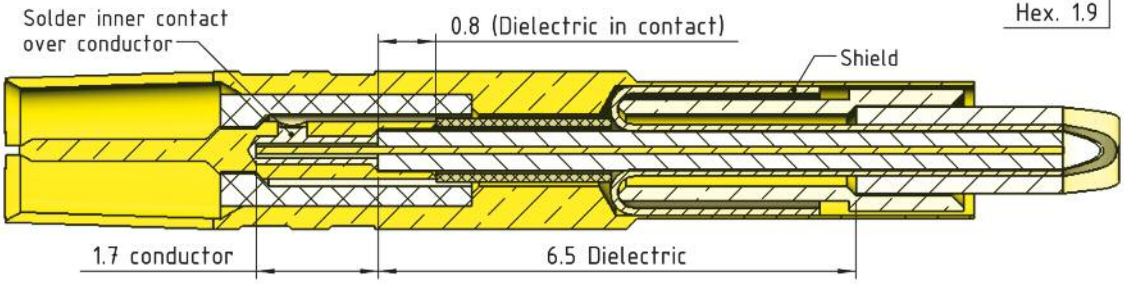
- Thread to the body.
- Beware that the inner contact's hook goes entirely through the body's insulator.



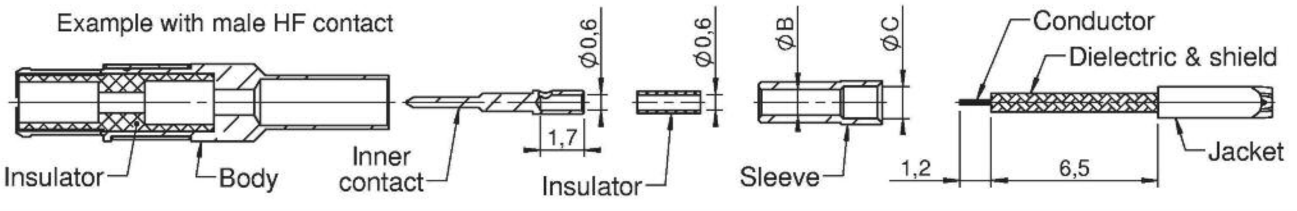
4/ CRIMP :

- Tool : DANIELS HX3
- Die : C13847
- Position : 8.95 coax 22
- Hexagone : 1.9mm / plats
- Position : 8.95mm

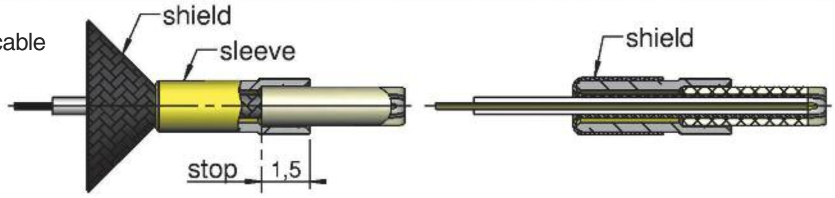




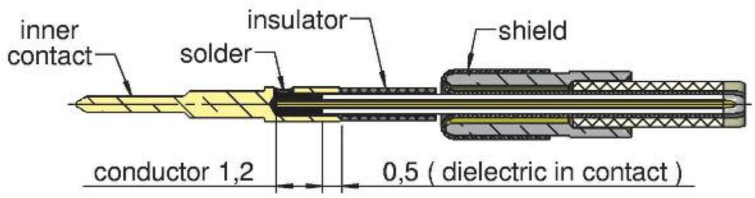
Cable instructions (IC30HF01)



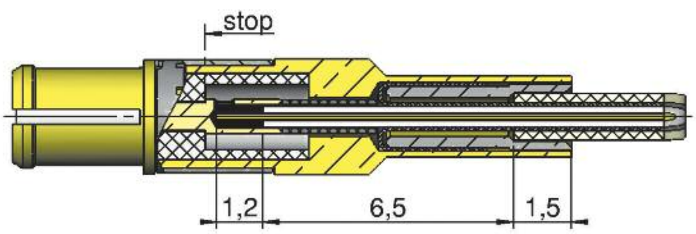
1 - Thread the sleeve until stop onto the cable
- Place the shield on the sleeve



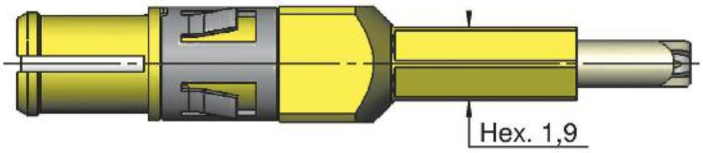
2 - Thread the insulator
- Solder the inner contact on the conductor

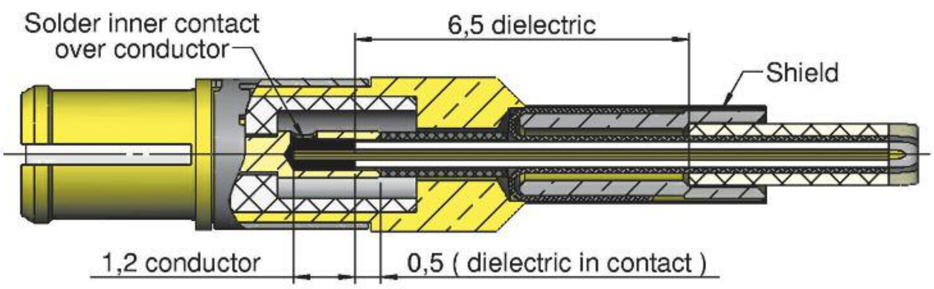


3 - Thread to the body.

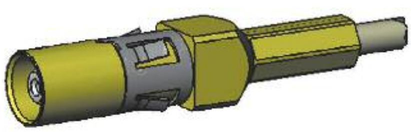


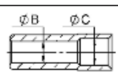
4 - CRIMP
- Tool : DANIELS HX3
- Die : C13847
- Hexagone : 1,9 mm / flat
- Position : 9,95 mm



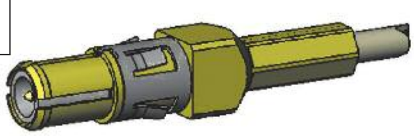


Female HF contact

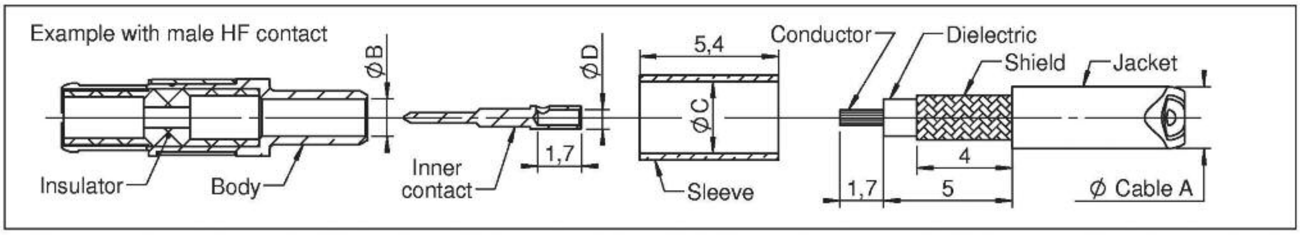


	ØB	ØC	Sleeve
P/N terminal -01	1	1,25	
P/N terminal -02	0,85	1,15	

Male HF contact

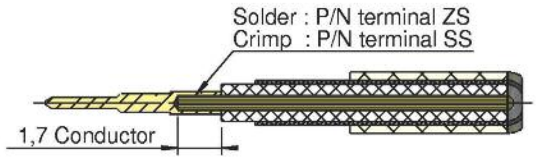


Cable instructions (IC30HF02)

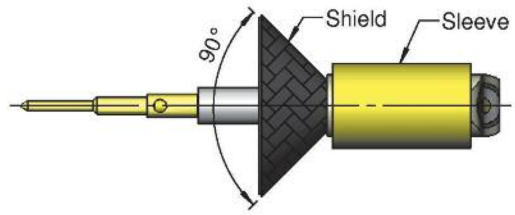


					Central crimp DANIELS MH800		Hexagonal imprint E sleeve crimp DANIELS HX3 tool				
					Positioner K1131		Die C13847			Die C14680	
	Cable ØA	Body ØB	Sleeve ØC	Contact ØD	Conductor Ø 0,3	Conductor Ø 0,5	Hex.1,9	Hex.2,4	Hex.2,8	Hex.3,25	Hex.4
30-x320-SS	2 mm	1 mm	2,2 mm	0,5 mm				x			
30-x320-DS	2,3 mm	1 mm	2,8 mm	0,5 mm					x		
30-x324-SS	2,4 mm	1,5 mm	2,8 mm	0,6 mm	Position 2 / 3	Position 3 / 4			x		
30-x326-SS	2,7 mm	1,7 mm	2,8 mm	0,6 mm					x		
30-x326-DS	3 mm	1,7 mm	3,25 mm	0,6 mm						x	

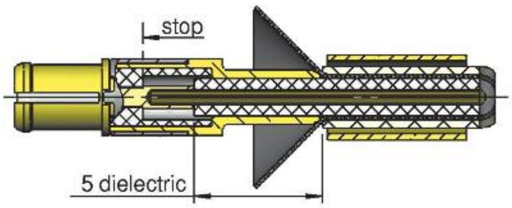
1 - Mount the inner contact on the conductor and solder or crimp.
(crimping with DANIELS MH800 positioner K1131)



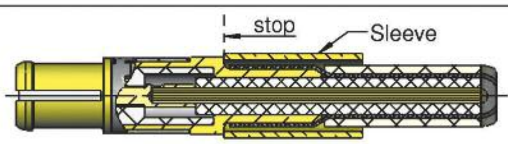
2 - Thread the sleeve onto the cable and bent the shield at 90°.



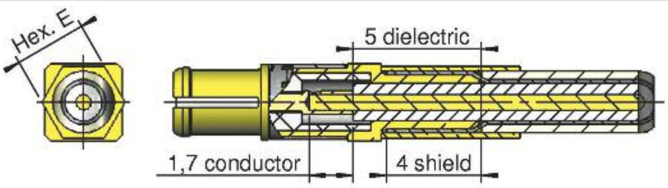
3 - Push until stop inside the body.

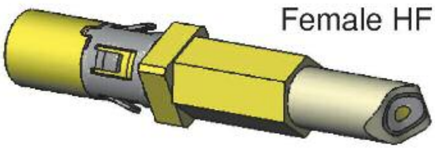


4 - Thread the sleeve until stop on the body so as to bent the shield.

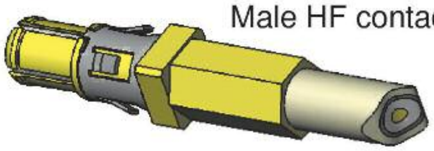


5 - Crimp the sleeve





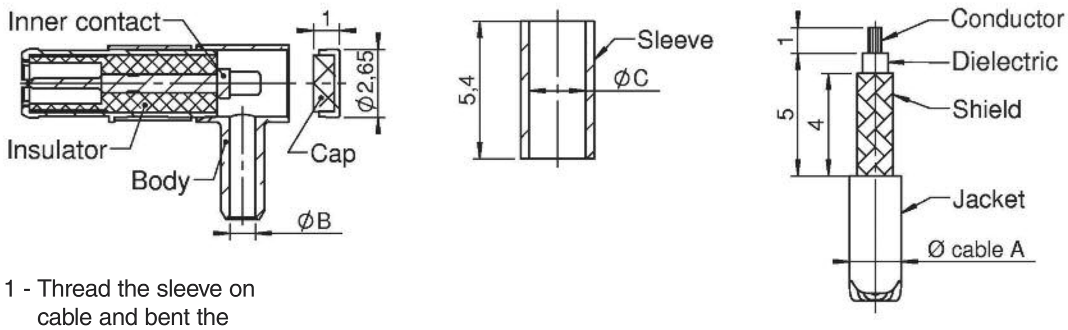
Female HF contact



Male HF contact

Cable instructions (IC30HF03)

Example with male HF contact



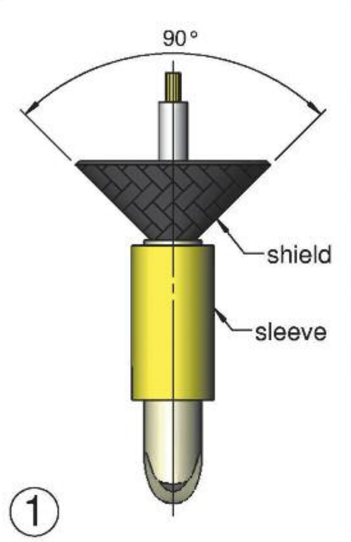
1 - Thread the sleeve on cable and bent the shield at 90°

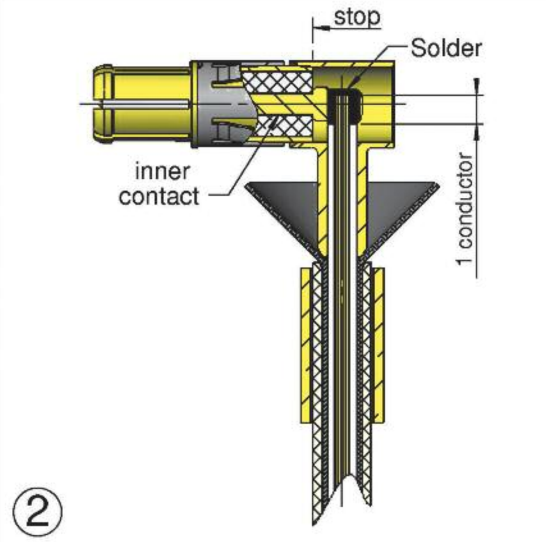
2 - Place the inner contact until stop in the body. Insert the cable and solder the conductor onto the inner contact

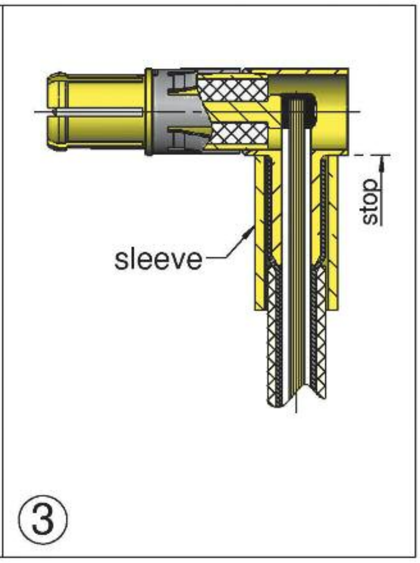
3 - Thread the sleeve until stop on the body so as to bent the shield

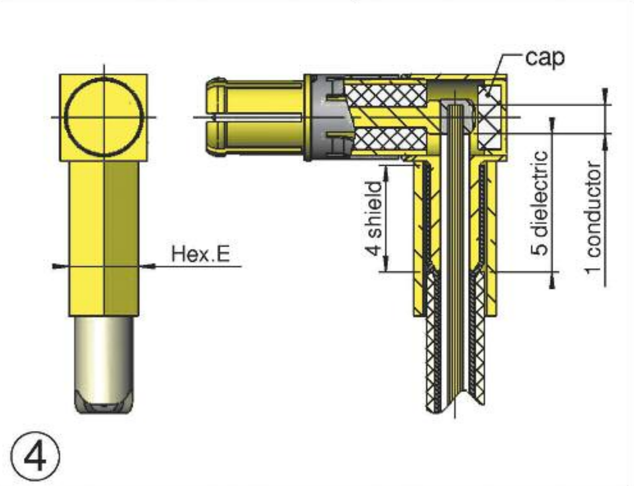
	Cable ØA	Body ØB	Sleeve ØC	Contact	Hexagonal imprint E sleeve crimp DANIELS HX3 tool				
					Die C13847			Die C14680	
					Hex.1,9	Hex.2,4	Hex.2,8	Hex.3,25	Hex.4
30-x412-ZS	1,2 mm	0,7 mm	1,3 mm	solder	x				
30-x420-ZS	2 mm	1 mm	2,2 mm	solder		x			
30-x420-DS	2,3 mm	1 mm	2,8 mm	solder			x		
30-x424-ZS	2,4 mm	1,5 mm	2,8 mm	solder			x		
30-x426-ZS	2,7 mm	1,7 mm	2,8 mm	solder			x		
30-x426-DS	3 mm	1,7 mm	3,25 mm	solder				x	

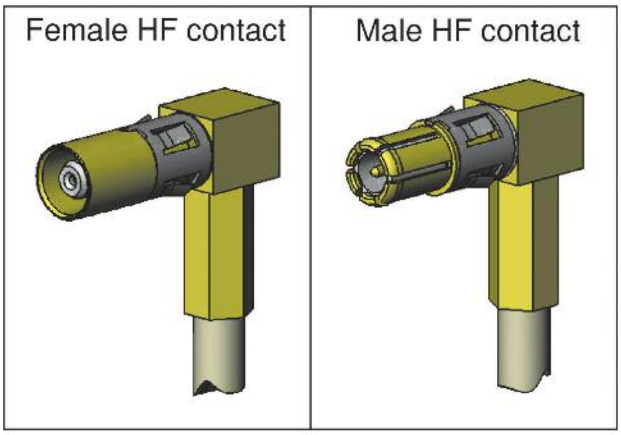
4 - Crimp the sleeve with DANIELS HX3 tool and mount the back cap with tool P/N C14772



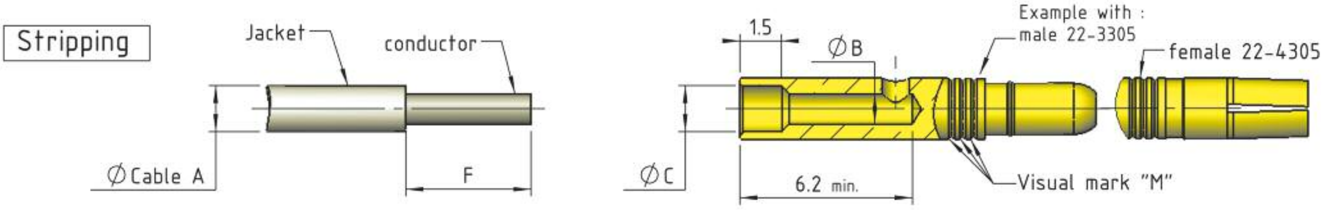








Cable instructions (IC22HP02)

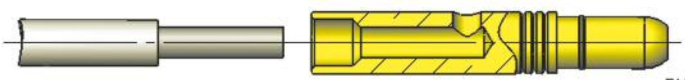


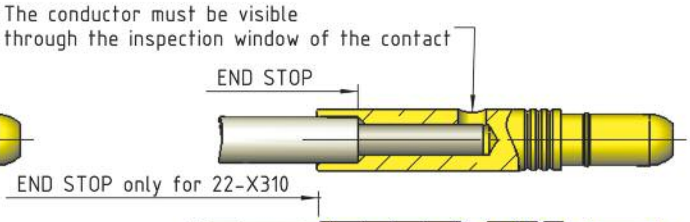
Loaded	Unloaded	Cable A			ØB	ØC	Length F conductor	M	Solder	Crimp by AF8 Tool / Positioner	Crimp tool setting - Number selector		
		AWG20	AWG18	AWG16							AWG20	AWG18	AWG16
3305	22-3305	X	NA		1.1 mm	1.65 mm	4.5 mm	x3	OK	16459 / C16461	4	NA	
3308	22-3308	NA	X	NA	1.35 mm	1.85 mm		x2			NA	5	NA
3310	22-3310	X			1.7 mm	NA	6 mm	x1			4	5	6

Loaded	Unloaded	Cable A			ØB	ØC	Length F conductor	M	Solder	Crimp by AF8 Tool / Positioner	Crimp tool setting - Number selector		
		AWG20	AWG18	AWG16							AWG20	AWG18	AWG16
4305	22-4305	X	NA		1.1 mm	1.65 mm	4.5 mm	x3	OK	16459 / C16461	4	NA	
4308	22-4308	NA	X	NA	1.35 mm	1.85 mm		x2			NA	5	NA
4310	22-4310	X			1.7 mm	NA	6 mm	x1			4	5	6

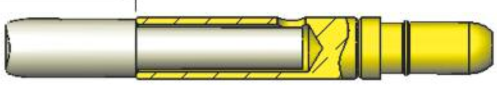
NA : Not Applicable

1 - Insert the cable into the contact

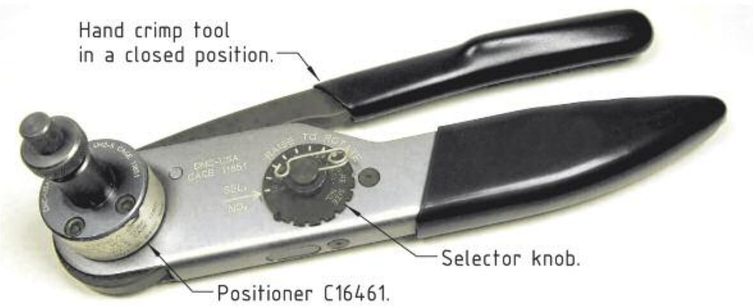




2 - Set the hand crimp tool according to crimp barrel accomodation table above.



2.1 - Select the number selector with the selector knob (see crimp tool setting).
2.2 - Put the positioner C16461 on the hand crimp tool 16459.

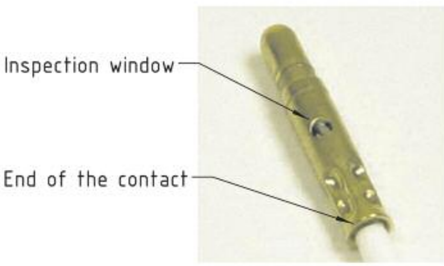


3 - Insert the contact and wire assembly in the crimp guide of the hand crimp tool.

3.1 - In the crimp guide, the contact and wire assembly must be in the ends stop position.
3.2 - During crimping, keep the wire in position.
3.3 - Just one crimping operation is allowed per contact and wire assembly.

4 - Visually check crimping

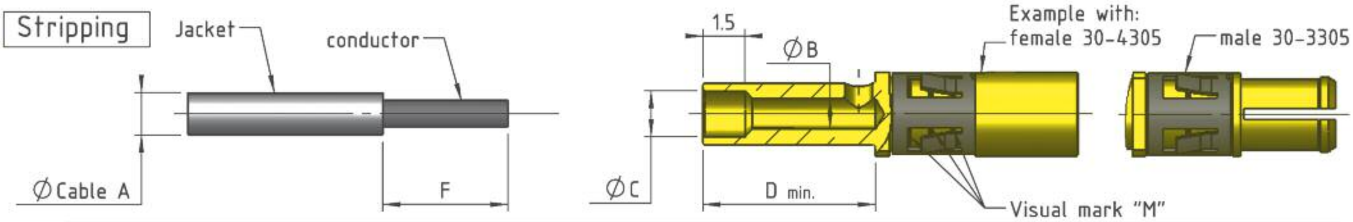
4.1 - Crimping must not deform the inspection window.
4.2 - Contact must not have visible fractures or cracks.
4.3 - Contact barrel must not be deformed or bent.
4.4 - Crimping must not deform the end of the contact.



5 - Check it is firmly crimped by pulling gently

5.1 - For that purpose two (2) fingers are enough : pinch the wire and pull smoothly along the axis of the crimped contact

Cable instructions (IC30HP02)

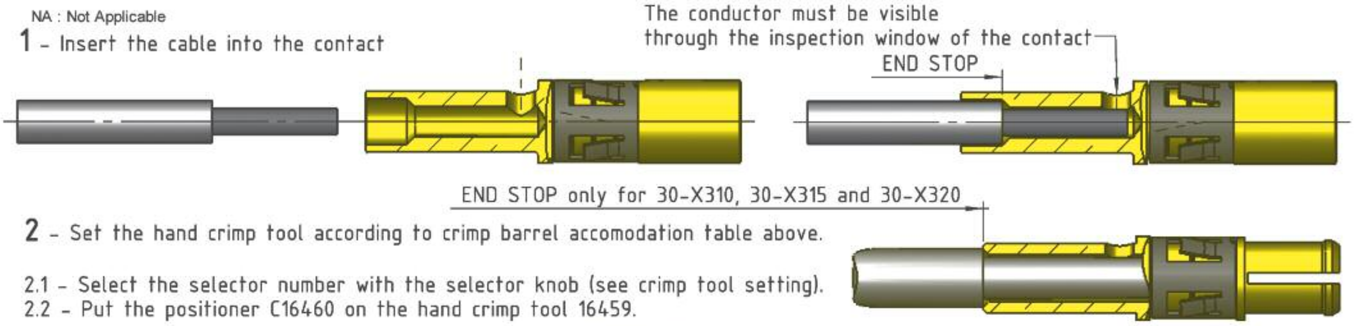


Loaded	Unloaded	Cable A AWG20	AWG18	AWG16	AWG14	AWG12	ØB	ØC	Length F conductor	Length D hole	M	Solder	Crimp by AF8 Tool / Positioner	Crimp tool setting - Number selector AWG20	AWG18	AWG16	AWG14	AWG12
3305	30-3305	X	NA				1.1 mm	1.65 mm	4.5 mm	6.2 mm	x3	OK	16459 / C16460	3	NA			
3308	30-3308	NA	X	NA			1.35 mm	1.85 mm			x2			NA	4	NA		
3310	30-3310	X			NA		1.7 mm	NA	6 mm		x1			4	4	5	NA	
3315	30-3315	NA			X	NA	2 mm				NA			NA			6	NA
3320	30-3320				NA	X	2.6 mm		5.3 mm	5.5 mm							NA	8

Loaded	Unloaded	Cable A AWG20	AWG18	AWG16	AWG14	AWG12	ØB	ØC	Length F conductor	Length D hole	M	Solder	Crimp by AF8 Tool / Positioner	Crimp tool setting - Number selector AWG20	AWG18	AWG16	AWG14	AWG12
4305	30-4305	X	NA				1.1 mm	1.65 mm	4.5 mm	6.2 mm	x3	OK	16459 / C16460	3	NA			
4308	30-4308	NA	X	NA			1.35 mm	1.85 mm			x2			NA	4	NA		
4310	30-4310	X			NA		1.7 mm	NA	6 mm		x1			4	4	5	NA	
4315	30-4315	NA			X	NA	2 mm				NA			NA			6	NA
4320	30-4320				NA	X	2.6 mm		5.3 mm	5.5 mm							NA	8

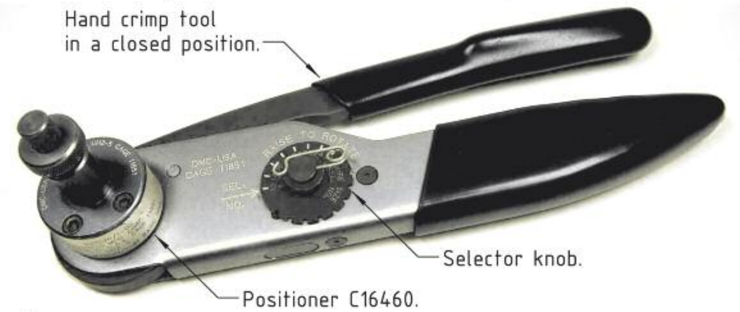
NA : Not Applicable

1 - Insert the cable into the contact



2 - Set the hand crimp tool according to crimp barrel accomodation table above.

2.1 - Select the selector number with the selector knob (see crimp tool setting).
2.2 - Put the positioner C16460 on the hand crimp tool 16459.

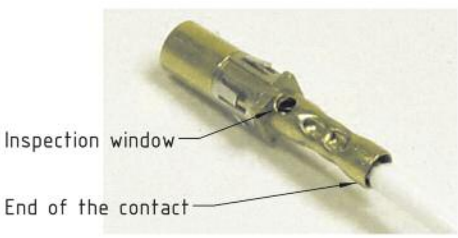


3 - Insert the contact and wire assembly in the crimp guide of the hand crimp tool.

3.1 - In the crimp guide, the contact and wire assembly must be in the end stop position.
3.2 - During crimping, keep the wire in position.
3.3 - Just one crimping operation is allowed per contact and wire assembly.

4 - visually check crimping

4.1 - Crimping must not deform the inspection window.
4.2 - Contact must not have visible fractures or cracks.
4.3 - Contact barrel must not be deformed or bent.
4.4 - Crimping must not deform the end of the contact



5 - Check it is firmly crimped by pulling gently

For that purpose two (2) fingers are enough : pinch the wire and pull smoothly along the axis of the crimped contact

Index

General information

CMM 100/200 Series

CMM 220 Series

CMM 320 Series

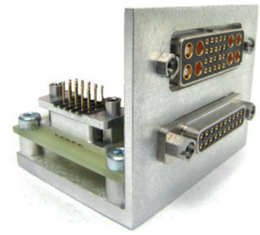
CMM 340 Series

High frequency and high power contacts

Manufacturer and designer of innovative interconnect solutions

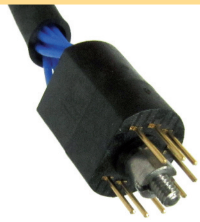

MICRO-D MIX™ DMM SERIES MICRO-CONNECTORS

2mm pitch high density robust metal shielded micro connector
Self cabling connector
Simple and easy to design-in
New alternative under MIL-DTL-83513G or MIL-DTL-55302F test routine
Very flexible custom design (fixing hardware, contacts…)



OMM SERIES MICRO-CIRCULAR CONNECTORS

High density of contacts in smallest circular connector shape
Space saving feature
Security of connection
Light weight
Lockable captive fixing hardware

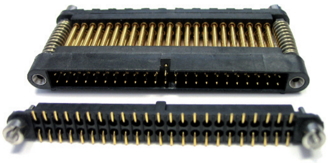


MICROFLEX HARNESS SOLUTION

Low weight: save up to -30% vs. bulky cable
Smaller space-factor
2 in 1 technology with CMM & CRIMPFLEX
Avionic & aerospace MIL comply
High quality of crimp (gaz tie)
High productivity: 2 to 30 contacts in 1 crimp

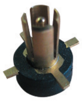
4D-FLOATING CONNECTORS

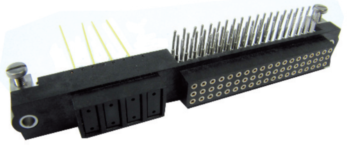
4D tolerance absorption: 4D = 3 axial movements + 1 rotation
High efficiency "Bone design" (round shape and 4 spring-lips contact)
Complies with MIL-DTL-55302F
Auto alignment feature
Adaptable to customer requests



CUSTOM PRODUCTS

You can rely on our R&D department know-how and long experience.
Our permanent innovation was recognized and labelized as "highly Innovative" by the European Union
Our in-house production and assembly capacity offers you the possibility to create customized products : stamping and moulding, micro-screw machining, laser cut, CNC, specific machinery development, clean room, measure and test lab.
Fully integrated industrial company, Nicomatic can reduce your risks, can secure your development and achieve the solution that will make the difference on the market.





Date of issue : May 2011
Catalogue reference : C.CMM.1000/GB

NICOMATIC maintains a policy of ongoing development and improvement. It therefore reserves the right to change design, dimensions and specifications without notice. All information stated inside this catalogue is not contractual and subject to change (eg. standard connector configurations).