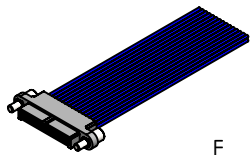
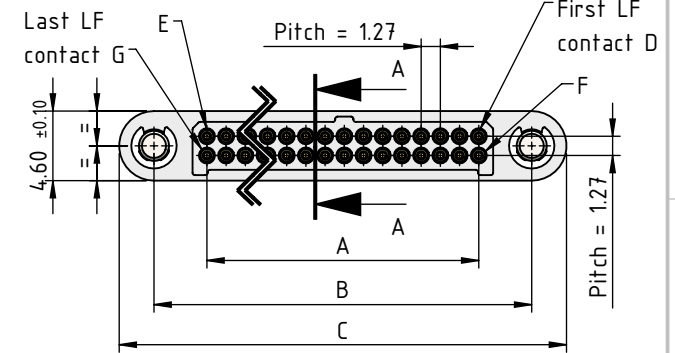
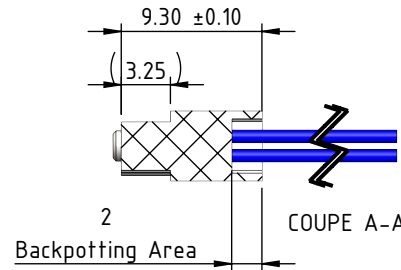
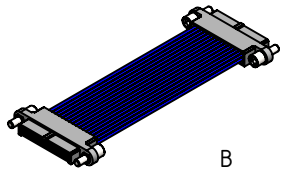


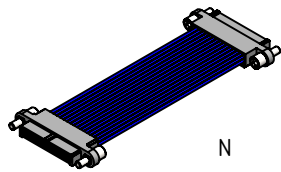
# EMM



F  
Fly lead



B  
Back to back  
(Key of polarization)



N  
Back to back reversed  
(Key of polarization)

### Connector series 220 male

LF contacts number nn	Distance in mm between axes		Length in mm	LF contacts reference mark number			
	A	B		D	E	F	G
04	1.27	8.27	12.87	1	2	3	4
06	2.54	9.54	14.14	1	3	4	6
08	3.81	10.81	15.41	1	4	5	8
10	5.08	12.08	16.68	1	5	6	10
12	6.35	13.35	17.95	1	6	7	12
14	7.62	14.62	19.22	1	7	8	14
16	8.89	15.89	20.49	1	8	9	16
18	10.16	17.16	21.76	1	9	10	18
20	11.43	18.43	23.03	1	10	11	20
22	12.7	19.7	24.3	1	11	12	22
24	13.97	20.97	25.57	1	12	13	24
26	15.24	22.24	26.84	1	13	14	26
28	16.51	23.51	28.11	1	14	15	28
30	17.78	24.78	29.38	1	15	16	30
32	19.05	26.05	30.65	1	16	17	32
34	20.32	27.32	31.92	1	17	18	34
36	21.59	28.59	33.19	1	18	19	36
38	22.86	29.86	34.46	1	19	20	38
40	24.13	31.13	35.73	1	20	21	40
42	25.4	32.4	37	1	21	22	42
44	26.67	33.67	38.27	1	22	23	44
46	27.94	34.94	39.54	1	23	24	46
48	29.21	36.21	40.81	1	24	25	48
50	30.48	37.48	42.08	1	25	26	50
52	31.75	38.75	43.35	1	26	27	52
54	33.02	40.02	44.62	1	27	28	54
56	34.29	41.29	45.89	1	28	29	56
58	35.56	42.56	47.16	1	29	30	58
60	36.83	43.83	48.43	1	30	31	60

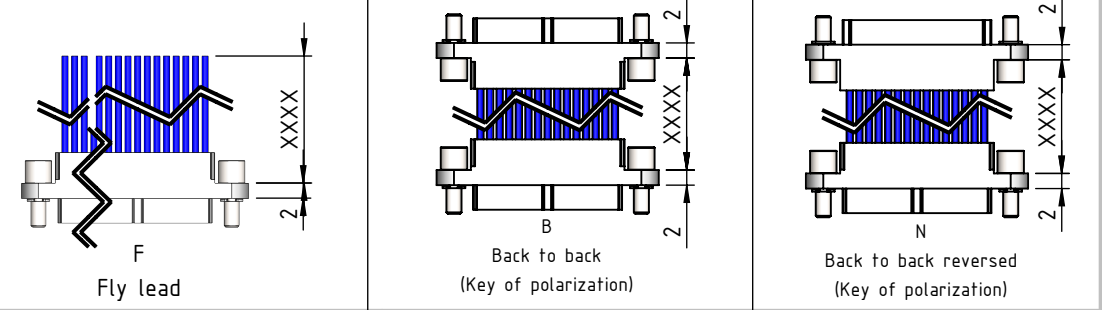
### Part numbering

EMM Series	Gender	Signal wire + color #	Shape & potting	LF contact nbr	Fixing	Serie HP / HF Contact	Shielding	Harness configuration	Harness length
HE22	1 Male	D# AWG 30	P 2mm potting shape	04 to 60	E00 no fixing	Ø If signal ( LF ) contacts only	Z no	F Fly lead	XXXX
		H# AWG 28						B Back to back	
		I# AWG 26	Q 2mm potting shape + potting		E01 Jackscrew for Harness			N Back to back reversed	
		J# AWG 24							

### COLOR #

0	1	2	3	4	5	6	7	8	9	R	Length (mm)	Tolerance (mm)
Black	Brown	Red	Orange	Yellow	Green	Blue	Violet	Grey	White	Rainbow repeated	0100<XXXX<0300	±5
											0300<XXXX<1500	±10
											1500<XXXX<3000	±50
											3000<XXXX<7500	±75
											>7500	±2.5%

### Harness configuration



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	Iss	Date	Drawn	Checked	Approved
Item : Harness EMM220 male to crimp AWG24-30 nn LF contacts, FFF fixing hardware, xxxx mm					

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Catalogue Reference : HExxxZ#pnnnDxxx-yyzz-h#scLLL

Compliant matrix : MDC.P16020  
Customer reference : HExxxZ#pnnnDxxx-yyzz-h#scLLL



General tolerance ±0.2  
Scale 2:1  
Page 1/2

**PRODUCT SPECIFICATIONS**

Material		Mechanical features	
Component	Characteristics	Mil 83513 Requirement	EMM Results
Insulator	Special LCP (Liquid Crystal Polymer thermoplastic) UL 94-V0	Contact engagement and separation forces EIA 364-37B	Engagement force: 1N max Separation force: 0.15 N
LF Contacts	Female: Body: Copper alloy / Ni +Au 0.125µ mini Clip: Beryllium copper / Ni + Au 1.27µ mini	Connector mating and unmating forces EIA 364-13D	Values for configurations up to 30 pins Mating Force: 1.7N max Unmating Force: 0.1N min
	Male: Copper alloy / Ni + Au 0.75µ mini	Durability : 500 cycles MIL-DTL-83513G 54,5,16	Values for configurations up to 30 pins Qualified
Fixing Hardware	Passivated stainless steel 300 series	Crimp tensile strength EIA 364-08B NASA-STD 8739.4	AWG 24: 49.98 N min AWG 26: 36.64 N min AWG 28: 16.90 N min AWG 30: 11.30 N min
Electrical performance requirements		Environmental features	
Mil 83513 Requirement	EMM Results	Mil 83513 Requirement	EMM Results
Dielectric withstanding voltage sea level EIA-364-20C	Dielectric withstanding voltage: 750 V RMS Breakdown voltage: 1000 V RMS Rated voltage: 250 V RMS	Sinusoidal Vibration EIA 364-28E TEST CONDITION III&IV	Values for configurations up to 30 pins Up to 45g
Dielectric withstanding voltage high altitude EIA-364-20C	Dielectric withstanding voltage @30 000 ft: 540 V RMS Dielectric withstanding voltage @70 000 ft: 480 V RMS	Shock EIA 364-27B TEST CONDITION G	Values for configurations up to 30 pins Up to 160g
Insulation Resistance EIA 364-21C	> 2000 GΩ@ 500V	Temperature cycling EIA 364-32D	-65°C +260°C
Contact Resistance EIA 364-06C	Less than 8 mΩ	Fluid immersion MIL-DTL-83513G 54,5,18	Qualified
Low level contact resistance EIA 364-06C	Less than 9 mΩ	Humidity EIA 364-31B - Method IV	Qualified
Magnetic permeability ASTM A342/A342M	Less than 2 gamma	Salt spray (corrosion) Duration: 96 hours 364-26B TEST CONDITION A	Values for configurations up to 30 pins Qualified
Contact Current Capability (derating) IEC 60512-5-2 Test 5b	3A@25°C and 1.6A@85°C for 30 pins	Thermal vacuum outgassing ASTM E595 (ECSS-Q-ST-70-02C)	Qualified PEEK (TML 0.18 %, CVCM 0.01 %) / LCP (TML 0.06 %, CVCM 0.01%) / STYCAST 2651 (TML 0.43 %, CVCM 0.01%)
		Resistance to soldering heat EIA 364-29C	Values for configurations up to 30 pins Qualified
		Marking MIL-STD-202, method 215	Qualified



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	Iss	Date	Drawn	Checked	Approved
Item : Harness EMM220 male to crimp AWG24-30 nn LF contacts, FFF fixing hardware, xxxx mm					
Folder : X:\Méthodes\Plans clients\Plans clients 2D\85 - EMM\11 - EMM câblage\01 - Câblages standards\HExxxZ#pnnnDxxx-yyzz-h#scLLL					

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		Customer reference : HExxxZ#pnnnDxxx-yyzz-h#scLLL			