



Summary

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Number of contacts Low Voltage	7
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Fixed Panel Front Mounted
Locking system	Ratchet
Size	1M
Suggested matching part	FMU.1M.307.XLC
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/edu-1m-307-xln.html

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Technical details

Electrical Configuration

Contact Termination Low voltage	PCB - Straight
R (max)	6.1 mOhm
Insert configuration value	1M.307 - 7 Low Voltage
Insulator	L: PEEK
Rated current	7 A
Test voltage (kV rms) Contact-contact	1.45
Test voltage (kV rms) Contact-shell	1.2
Contact Type	Print (straight)
Contact Dia.	0.7 mm (0.028in)
Number of contacts Low Voltage	7
Gender	Standard

Form & Material

Shell style / Model id	ED - Fixed receptacle with square flange for printed circuit
Socket / Receptacle	Fixed Panel Front Mounted
Housing material	Aluminium (nickel plated [SAE AMS QQ N 290], anthracite color) shell and nut, other pieces bronze/brass
Locking system	Ratchet
Keying	3 keys (beta=130, gamma=100, plug: male contacts, receptacle: female contacts)

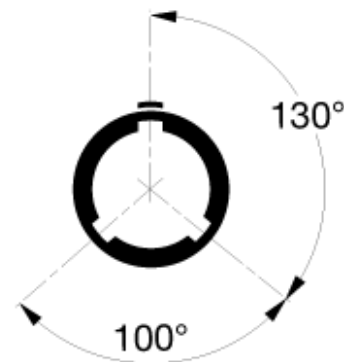
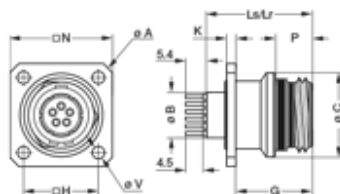
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Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental sealing (IP rating)	IP68
Endurance	3000 mating cycles
Temperature range	-20°C / +200°C
EMI Shielding EIA 364-66A	>= 80 dB (1 GHz), >=70 dB (3 GHz), >= 58 dB (6 GHz), >= 40 dB (10 GHz)
Gunfire vibration	25 Hz - 2000 Hz, 3 axis (Apache helicopter)
Humidity (max)	21 days at 95%
Lighting strike EIA 364-76	10K amps - 6 times
Shock Resistance	300 g [3 ms]
Thermal shock	5 cycles: -65°C to +150°C
Vibration-Random	37.8 g rms - 3 axes, 4 hr amb [50 Hz - 2000 Hz]
Vibration-Sine	30 g, 3 axes, 12 hr [10 Hz - 2000 Hz]
Salt Spray Corrosion	max. 48 hr

Drawings



Dimensions

	A	B	C	G	H	K	Ls	Lr	N	P	SV
mm.	23.8	5.95	14.2	12.8	12.9	1.5	18.3	18.3	18.4	5.3	3.3
in.	0.94	0.23	0.56	0.5	0.51	0.06	0.72	0.72	0.72	0.21	0.13

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