



Summary

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Number of contacts Low Voltage	7
Wire Size/AWG	26 - 22
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Fixed Panel Rear Mounted
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Matching parts	FMN.1M.307.XLCT
Series	M - Rugged Ratchet coupling

Technical details

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

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Electrical Configuration

Contact Termination Low voltage	Crimp
R (max)	6.1 mOhm
Insert configuration value	1M.307 - 7 Low Voltage
Insulator	L: PEEK
Rated current	7 Amps
Test voltage (kV rms) Contact-contact	1.45
Test voltage (kV rms) Contact-shell	1.2
Contact retention	22 N
Contact Type	Crimp
Max. Conductor	0.34 mm ² (AWG 22)
Min. Conductor	0.14 mm ² (AWG 26)
Bucket Dia.	0.8 mm (0.031in)
Contact Dia.	0.7 mm (0.028in)
Number of contacts Low Voltage	7
Wire Size/AWG	26 - 22
Gender	Standard

Form & Material

Shell style / Model id	PE - Fixed receptacle, nut fixing and mold stop
Socket / Receptacle	Fixed Panel Rear 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=165, gamma=30, plug: male contacts, receptacle: female contacts)
Weight	8.7 g

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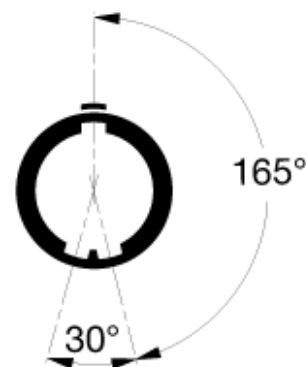
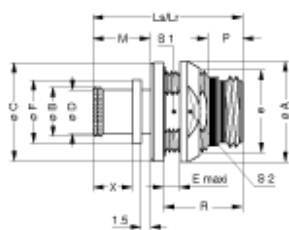
Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental protection (IP rating)	IP68
Minimal temperature	-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

Cable fixation

Cable termination protection	For overmolding
Fixation type	T type cable adapter
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

Drawings



Dimensions

	A	B	C	D	E	e	Ls	Lr	M	P	R	S1	S2
mm.	18	10.5	17.8	9.7	5	M14x1.00	25.6	25.6	9.7	5.3	13.8	12.5	16
in.	0.71	0.41	0.7	0.38	0.2		1.01	1.01	0.38	0.21	0.54	0.49	0.63

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