



Summary

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Number of contacts Low Voltage	16
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	7.50 - 15.00 mm
Size	3M
Series	M - Rugged Ratchet coupling

Technical details

Electrical Configuration

Contact Termination Low voltage	Crimp
Insulator	R: PEEK (mixed multipole)
Contact Type	Crimp
Number of contacts Low Voltage	16
Gender	Standard

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-3m-316-xrc10.html

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Form & Material

Shell style / Model id	FM - Straight plug, key (N) or keys (P, R, S, T, U, V, W and X) with knurled grip
Plug	Straight
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	14.57 g

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

Cable fixation

Cable termination protection	Heatshrink
Fixation type	Cable collet
Jacket cable outside diameter [mm]	7.50 - 15.00 mm

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