

Standard



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Summary

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[M series](#)

[Application leaflet Security Defence](#)

[Customer Drawing](#)

Number of contacts Low Voltage	10
Wire Size/AWG	24 - 20
Gender	Reverse Gender
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	6.50 - 13.00 mm
Size	2M
Suggested matching part	PMS.2M.310.XLCT PHS.2M.310.XLCT
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fms-2m-310-xlmt.html

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Technical details

Electrical Configuration

Number of contacts Low Voltage	10
Contact Termination Low voltage	Crimp
R (max)	4.8 mOhm
Insert configuration value	2M.310 - 10 Low Voltage
Insulator	L: PEEK
Rated current	8 A
Test voltage (kV rms) Contact-contact	1.8
Test voltage (kV rms) Contact-shell	1.2
Contact retention	30 N
Max. Conductor	0.5 mm ² (AWG 20)
Min. Conductor	0.25 mm ² (AWG 24)
Bucket Dia.	1.1 mm (0.043in)
Contact Dia.	0.9 mm (0.035in)
Wire Size/AWG	24 - 20
Gender	Reverse Gender

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 and mold stop
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	S: 3 keys (beta=155, gamma=50, plug: female contacts, receptacle: male contacts)
Colour	Grey
Weight	10.3 g

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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	-55°C / +200°C (max. temperature valid for short periods of use.)
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	Mold stop (overmolding)
Jacket cable outside diameter [mm]	6.50 - 13.00 mm

Recommended By Lemo

Contacts

Replacement contact	EGN.0M.660.ZZM
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Caps

Compatible cap	BMF.2M.100.XAV
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Tools

Positionner	DCE.91.090.3MVM
Extraction tool	DCC.09.05B.LAG
Crimp tool	DPC.91.701.V

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