

Special



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Summary

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[High speed data transfer](#)

[Application leaflet Security Defence](#)

[Customer Drawing](#)

Number of contacts Low Voltage	8
Protocol	5G Base-T4 (5Gb/s)
Wire Size/AWG	32 - 28
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	0.00 - 6.00 mm
Size	2M
Suggested matching part	PEP.2M.514.XLPT6 HEP.2M.514.XLNP
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmp-2m-514-xlbt6.html

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Technical details

Electrical Configuration

Number of contacts Low Voltage	8
Contact Termination Low voltage	Crimp
R (max) - electrical contact resistance	6.1 mOhm
Insert configuration value	2M.514 - 8 High Speed, Low Voltage (CAT 6)
Insulator	L: PEEK
Rated current	8 A
Test voltage contact-contact	1.5 kV DC
Test voltage contact-shell	1.5 kV DC
Contact retention	22 N
Max. Conductor	0.09 mm ² (AWG 28)
Min. Conductor	0.032 mm ² (AWG 32)
Bucket Dia.	0.44 mm (0.017 in)
Contact Dia.	0.7 mm (0.028 in)
Number of differential pairs (High speed)	4
Protocol	5G Base-T4 (5Gb/s)
Wire Size/AWG	32 - 28
Gender	Standard

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	P: 3 keys (beta=150, gamma=60, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	16.69 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
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)

Recommended By Lemo

Caps

Compatible cap	BMF.2M.100.XAV
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Tools

Positionner	DCE.91.072.MVCM
Crimp tool	DPC.91.701.V

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