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## Summary

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Number of contacts Low Voltage	5
Wire Size/AWG	24 - 20
Gender	Reverse Gender
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Suggested matching part	<a href="#">PMS.1M.305.XLC</a>
Series	M - Rugged Ratchet coupling

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fms-1m-305-xlm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fms-1m-305-xlm.html)

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# Technical details

## Electrical Configuration

Number of contacts Low Voltage	5
Contact Termination Low voltage	Crimp
R (max)	4.8 mOhm
Insert configuration value	1M.305 - 5 Low Voltage
Insulator	L: PEEK
Rated current	9 A
Test voltage (kV rms) Contact-contact	1.3
Test voltage (kV rms) Contact-shell	1.3
Contact retention	30 N
Max. Conductor	0.5 mm <sup>2</sup> (AWG 20)
Min. Conductor	0.25 mm <sup>2</sup> (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
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	6.67 g

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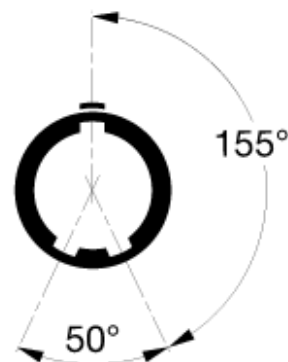
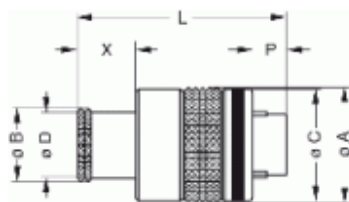
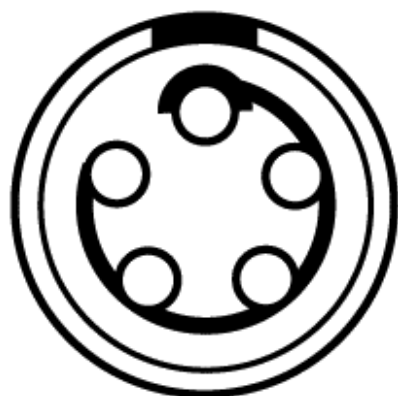
## Environment

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	$\geq 80$ dB (1 GHz), $\geq 70$ dB (3 GHz), $\geq 58$ dB (6 GHz), $\geq 40$ 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	Heatshrink
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

## Drawings



[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fms-1m-305-xlm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fms-1m-305-xlm.html)

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## Dimensions

	A	B	C	D	Ls	Lr	P	X
mm.	14.6	10.5	14.2	9.7	24.1	24.1	3.9	6.7
in.	0.57	0.41	0.56	0.38	0.95	0.95	0.15	0.26

## Recommended By Lemo

### Accessories

Replacement contact	<a href="#">EGN.0M.660.ZZM</a>
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Compatible cap	<a href="#">BMF.1M.100.XAV</a>
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### Tools

Positionner	<a href="#">DCE.91.090.3MVM</a>
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Extraction tool	<a href="#">DCC.09.05B.LAG</a>
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Crimp tool	<a href="#">DPC.91.701.V</a>
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