



*Image for illustrative purpose only*

## Summary

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Number of contacts Low Voltage	4
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Suggested matching part	<a href="#">PEN.1M.304.XRMT2</a>
Series	M - Rugged Ratchet coupling

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fgn-1m-304-xrct2.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fgn-1m-304-xrct2.html)

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# Technical details

## Electrical Configuration

Number of contacts Low Voltage	4
Contact Termination Low voltage	Crimp
Insert configuration value	1M.304_2 - 2 (0.7 mm) + 2 (1.3 mm) Low Voltage
Insulator	R: PEEK (mixed multipole)
Rated current	0.7 mm : 11 A, 1.3 mm : 18.5 A
Bucket Dia.	2x0.87 mm, 2x1.6 mm
Contact Dia.	2x0.7 mm, 2x1.3 mm
Wire Size/AWG details	0.7 mm : 26-22, 1.3 mm : 20-16
Gender	Standard

## Form & Material

Shell style / Model id	FG - Straight plug with arctic 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	N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	7.77 g

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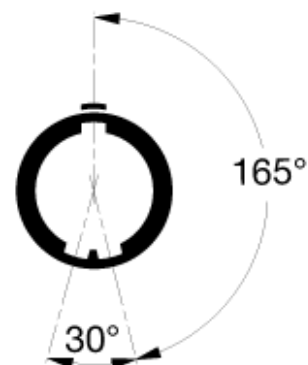
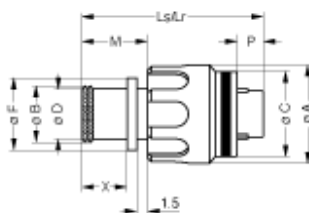
## Environment

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	For overmolding
Fixation type	Mold stop (overmolding)
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

## Drawings



[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fgn-1m-304-xrct2.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fgn-1m-304-xrct2.html)

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## Dimensions

	A	B	C	D	F	Ls	Lr	M	P	X
mm.	15.9	10.5	14.2	9.7	12.4	27.1	27.1	9.7	3.9	6.7
in.	0.63	0.41	0.56	0.38	0.49	1.07	1.07	0.38	0.15	0.26

## Recommended By Lemo

### Accessories

Replacement contact	<a href="#">FGN.0M.555.ZZC</a>
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Compatible cap	<a href="#">BGF.1M.100.XAV</a>
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### Tools

Positionner	<a href="#">DCE.91.130.5MVC</a>
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Positionner 2	<a href="#">DCE.91.070.5MVC</a>
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Extraction tool	<a href="#">DCF.93.131.4LT</a>
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Extraction tool 2	<a href="#">DCF.93.070.4LT</a>
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