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## Summary

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[f series](#)

[Customer Drawing](#)

Number of contacts Low Voltage	3
Wire Size/AWG	20 - 18
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Free
Locking system	Push-pull
Jacket cable outside diameter [mm]	3.80 - 10.70 mm
Size	1F
Suggested matching part	<a href="#">FGN.1F.303.XLC</a>
Series	F - Rugged Push-Pull

[https://www.lemo.com/int\\_en/solutions/optima/f-rugged-push-pull/phn-1f-303-xlm.html](https://www.lemo.com/int_en/solutions/optima/f-rugged-push-pull/phn-1f-303-xlm.html)

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# Technical details

## Electrical Configuration

Number of contacts Low Voltage	3
Contact Termination Low voltage	Crimp
R (max)	3.6 mOhm
Insert configuration value	1F.303 - 3 Low Voltage
Insulator	L: PEEK (UL 94 / V-0/1.5)
Rated current	12 A
Vtest (contact-contact)	1600 V (AC), 2250 V (DC)
Vtest (contact-shell)	1850 V (AC), 2600 V (DC)
Contact retention	40 N
Max. Conductor	1 mm <sup>2</sup> (AWG 18)
Min. Conductor	0.5 mm <sup>2</sup> (AWG 20)
Bucket Dia.	1.4 mm (0.055in)
Contact Dia.	1.3 mm (0.051in)
Wire Size/AWG	20 - 18
Gender	Standard

## Form & Material

Shell style / Model id	PH - Straight receptacle
Socket / Receptacle	Free
Housing material	Aluminium (nickel plated [SAE AMS QQ N 290], anthracite color) shell and nut, other pieces bronze/brass
Locking system	Push-pull
Keying	3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	7.24 g

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## Environment

Technical domain	Motorsport, Security and Defence
Environmental sealing (IP rating)	IP67
Endurance	1000 mating cycles
Temperature range	-15°C / +200°C (max. temperature valid for short periods of use.)
Climatic Category	15/200/21 (Aluminium shell)
Humidity (max)	<=95% [at 60 deg C /140 F]
Shock Resistance	100 g [ 6 ms]
Vibration	15 g [10 Hz - 2000 Hz]
Salt Spray Corrosion	max. 48 hr

## Cable fixation

Cable termination protection	Heatshrink
Fixation type	Heatshrink
Jacket cable outside diameter [mm]	3.80 - 10.70 mm

# Recommended By Lemo

## Accessories

Replacement contact	<a href="#">EGN.1F.665.ZZM</a>
Compatible cap	<a href="#">BRF.1F.200.XAV</a>

## Tools

Positionner	<a href="#">DCE.91.131.FVM</a>
Extraction tool	<a href="#">DCF.93.131.4LT</a>
Crimp tool	<a href="#">DPC.91.701.V</a>

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# Cables

Cable PartNumber	Material	Colour	Cable image
CMN.03.T18.055PGZE		grey	
CMN.03.T18.055PNZE			
CMN.03.T18.055QGZE	TPR (medical)	Grey	
CMN.03.T20.049PGZE		grey	
CMN.03.T20.049PNZE			
130240	PVC	Black	
130250	PVC	Grey	
230500	PVC	Grey	
230750	PVC	Grey	
30110	PVC	Grey	
30260	PVC	Black	
3220	PVC	Black	
3280	PVC	Black	
60080	PVC	Grey	

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