TECHNICAL SPECIFICATIONS

FISCHER
FIBEROPTIC SERIES

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Fischer® CONNECTORS

KEY FEATURES

The Fischer FiberOptic Series offers the best quality and stability needed for an optical link, combined with easy mating and easy field cleaning. It performs perfectly in harsh and extreme environments and has a high ingress protection of IP68 when mated, and IP67 unmated. This rugged push pull fiber optic connector, for both indoor and outdoor applications, can aslo be available pre-cabled for maximum performance and time saving, either directly from our factory or from one of our in-country Value Added Reseller partners.

The Fischer FiberOptic Series is available in two versions:

FiberOptic FO1, FO2 & FO4
A rugged connector with one (FO1), two (FO2) or four (FO4) fibers.

FiberOptic Hybrid FOH
A rugged hybrid connector with two fiber channels and two electrical contacts.

DURABILITY

- IP68 mated
- IP67 unmated
- 1,000 mating cycles
- Performs in extreme environments
- High optical stability

PERFORMANCE

- Low back reflection
- Singlemode & Multimode optical fibers
- UPC & APC polishing
- High-end butt joint technology

EASY CLEANING

- Removable monoblock mate adapter for easy access to ferrules
- Easy maintenance
- Easy field cleaning

EASY MATING

- Push-pull locking system makes it easy to mate/unmate with one hand
- Easy operation

FISCHER **FIBEROPTIC** SERIES

ROBUST | OPTICAL PERFORMANCE | EASY CLEANING

A rugged solution ideal for:
Faultless optical performance | Indoor and extreme outdoor applications | Easy field cleaning

FISCHER **FIBEROPTIC** SERIES

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PLUG

CABLE MOUNTED

BODY STYLE	P01
REAR ACCESSORIES	
Wire	–
Cable clamp	❍
Potting	●

RECEPTACLES

CABLE MOUNTED

BODY STYLE	R50
REAR ACCESSORIES	
Wire	–
Cable clamp	❍
Potting	●

PANEL REAR MOUNTED

BODY STYLES	R01
REAR ACCESSORIES	
Wire	●
Cable clamp	❍
Potting	●

PANEL FRONT MOUNTED

BODY STYLES	R03	R13
REAR ACCESSORIES		
Wire	●	●
Cable clamp	❍	❍
Potting	●	❍

– Not available for this body style
❍ Partially available for this body style
● Available for all body styles

PLUGS & RECEPTACLES

Wire	P01	R01	R03	R13	R50
FO1	-	•	•	•	-
FO2	-	•	•	•	-
FO4	-	•	•	•	-
FOH	-	•	•	•	-

Cable Clamp	P01	R01	R03	R13	R50
FO1	•	•	•	-	•
FO2	•	•	•	•	•
FO4	•	•	•	•	•
FOH	-	-	-	-	-

Potting	P01	R01	R03	R13	R50
FO1	•	•	•	-	•
FO2	•	•	•	•	•
FO4	•	•	•	•	•
FOH	•	•	•	•	•

All dimensions and images shown are in millimeters and are for reference only.

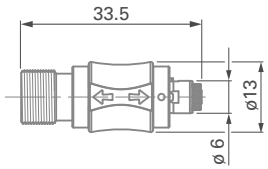
PLUGS - FO1

CABLE MOUNTED

P01

BODY STYLE

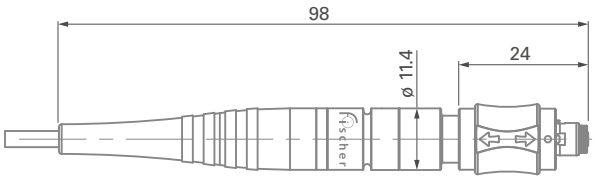
Part number: :
FO1 P01LGR1 00A00 A 000



REAR ACCESSORIES

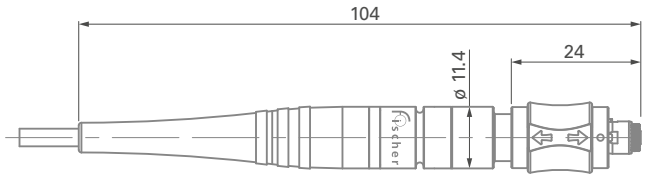
CABLE CLAMP SET

FO1 P01 CABLE CLAMP SET L36 D3.5



POTTING SET

FO1 P01 POTTING SET L41 D3.5



Indicated connector P/N = delivered without contacts, termini and rear accessory

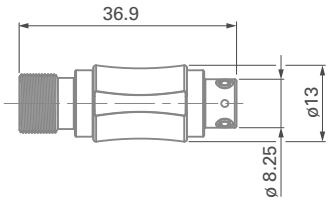
RECEPTACLES - FO1

CABLE MOUNTED

R50

BODY STYLE

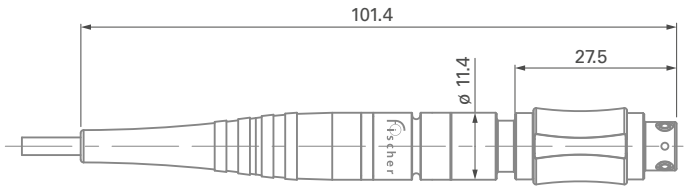
Part number: :
FO1 R50LGR1 00A00 A 000



REAR ACCESSORIES

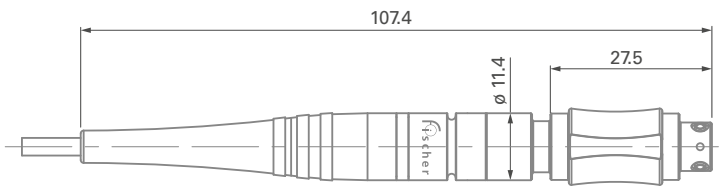
CABLE CLAMP SET

FO1 R50 CABLE CLAMP SET L36 D3.5



POTTING SET

FO1 R50 POTTING SET L41 D3.5



Indicated connector P/N = delivered without contacts, termini and rear accessory

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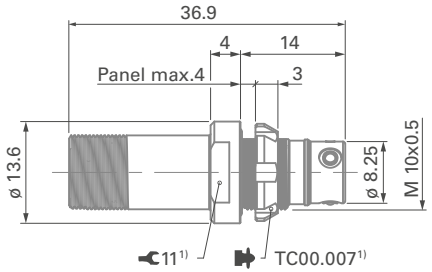
RECEPTACLES - FO1

PANEL REAR MOUNTED

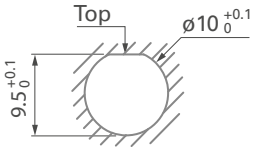
R01

BODY STYLE

Part number :
FO1 R01LGR1 00A00 A 000



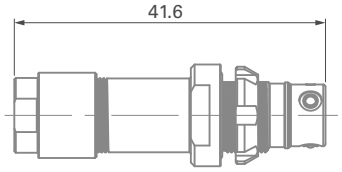
PANEL CUT-OUT



REAR ACCESSORIES

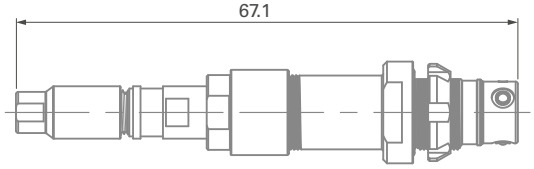
WIRE SET

FO1 R01 WIRE SET L18 D3.5



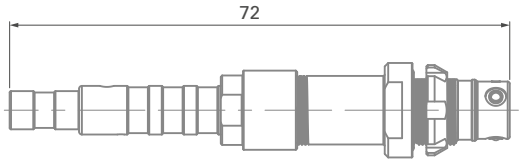
CABLE CLAMP SET

FO1 R01 CABLE CLAMP SET L36 D3.5



POTTING SET

FO1 R01 POTTING SET L41 D3.5



[1)] Torque 5.0 Nm. Torque (Nm) are recommended values that may be influenced by the quality of the panel surface. Tests have to be made to evaluate the exact values.
Indicated connector P/N = delivered without contacts, termini and rear accessory

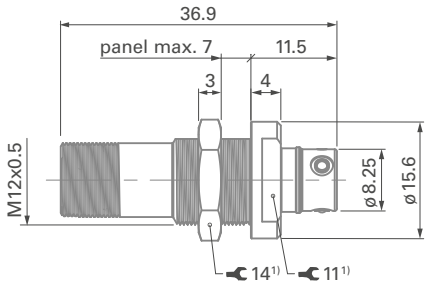
RECEPTACLES - FO1

PANEL FRONT MOUNTED

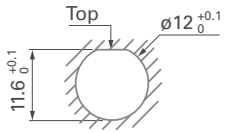
R03

BODY STYLE

Part number:
FO1 R03LGR1 00A00 A 000



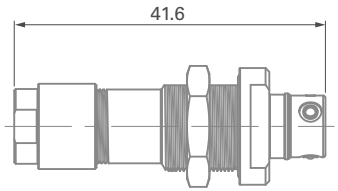
PANEL CUT-OUT



REAR ACCESSORIES

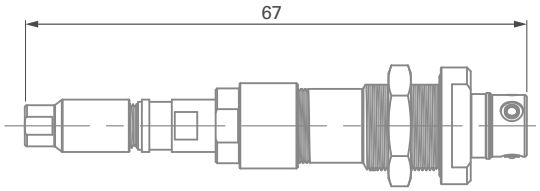
WIRE SET

FO1 R03 WIRE SET L18 D3.5



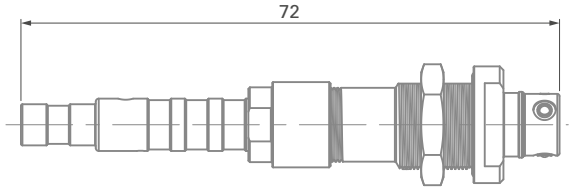
CABLE CLAMP SET

FO1 R03 CABLE CLAMP SET L36 D3.5



POTTING SET

FO1 R03 POTTING SET L41 D3.5



[1] Torque 5.0 Nm. Torque (Nm) are recommended values that may be influenced by the quality of the panel surface. Tests have to be made to evaluate the exact values.

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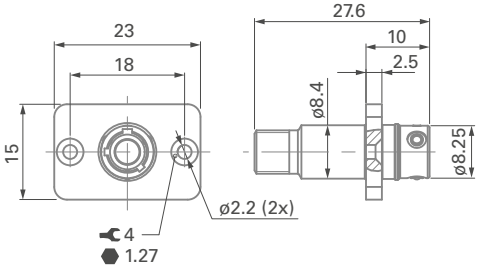
RECEPTACLES - FO1

PANEL FRONT MOUNTED

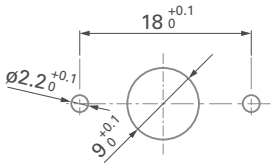
R13 - SQUARE FLANGE[2)]

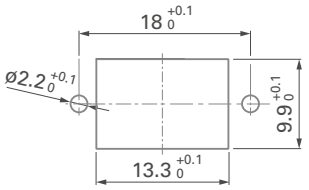
BODY STYLE

Part number :
FO1 R13LGR1 00A00 A 000



PANEL CUT-OUT



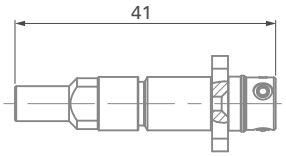


Compatible with following SC & LC duplex panel cut-out

REAR ACCESSORY

WIRE SET

FO1 R13 WIRE SET L20 D3.5



[1)] Torque 5.0 Nm. Torque (Nm) are recommended values that may be influenced by the quality of the panel surface. Tests have to be made to evaluate the exact values.
[2)] Due to panel mounting with screws, sealing can't be guaranteed at panel level.
Note : indicated connector P/N = delivered without contacts, termini and rear accessry

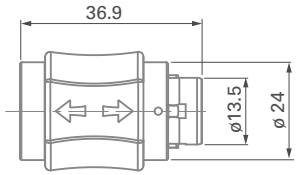
PLUGS - FO2/FO4

CABLE MOUNTED

P01

BODY STYLE

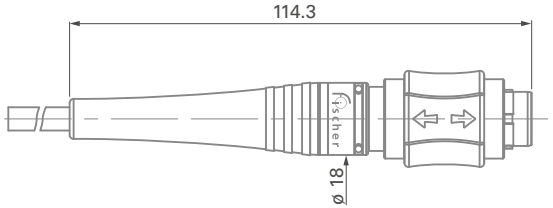
Part number :
FO2 P01LGR1 00A00 A 000
FO4 P01LGR1 00A00 A 000



REAR ACCESSORIES

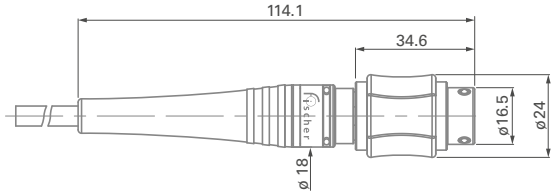
CABLE CLAMP SET

FO2-4 P01 CABLE CLAMP SET L49 D6



POTTING SET

FO2-4 P01 POTTING SET L49 D6.5)



Note : indicated connector P/N = delivered without contacts, termini and rear accessry

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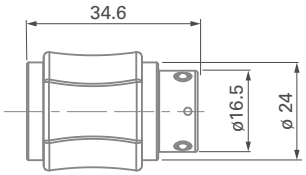
RECEPTACLES - FO2/FO4

CABLE MOUNTED

R50

BODY STYLE

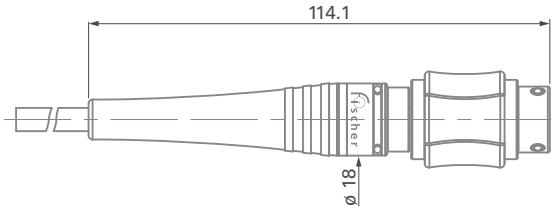
Part number :
FO2 R50LGR1 00A00 A 000
FO4 R50LGR1 00A00 A 000



REAR ACCESSORIES

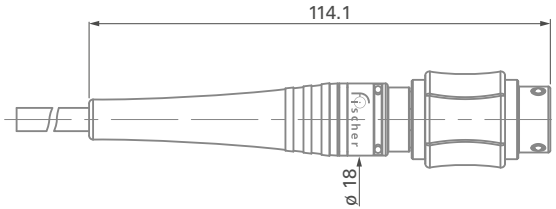
CABLE CLAMP SET

FO2-4 R50 CABLE CLAMP SET L49 D6



POTTING SET

FO2-4 R50 POTTING SET L49 D6.5



Indicated connector P/N = delivered without contacts, termini and rear accessory

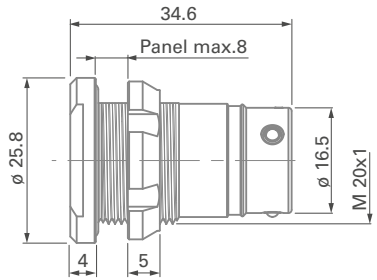
RECEPTACLES - FO2/FO4

PANEL REAR MOUNTED

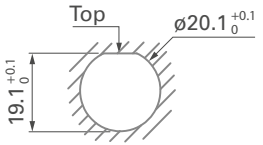
R01

BODY STYLE

Part number :
FO2 R01LGR1 00A00 A 000
FO4 R01LGR1 00A00 A 000



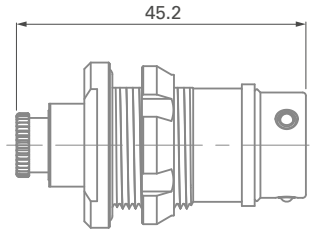
PANEL CUT-OUT



REAR ACCESSORIES

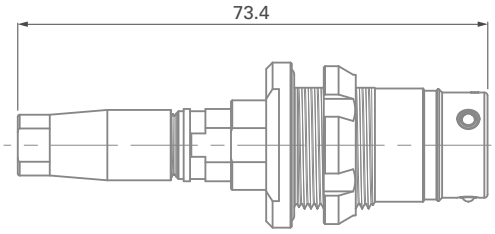
WIRE SET

FO2 R01 WIRE SET L20 D6.5
FO4 R01 WIRE SET L20 D6.5



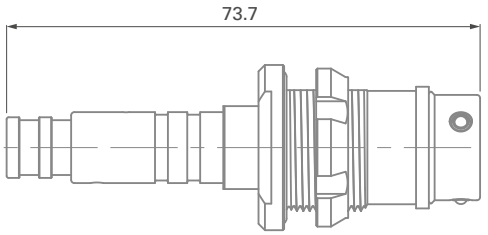
CABLE CLAMP SET

FO2-4 R01 CABLE CLAMP SET L49 D6



POTTING SET

FO2-4 R01 POTTING SET L49 D6.5



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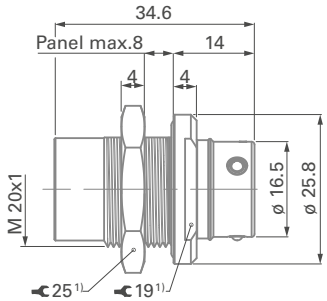
RECEPTACLES - FO2/FO4

PANEL FRONT MOUNTED

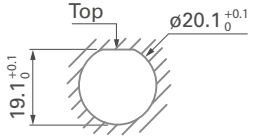
R03

BODY STYLE

Part number :
FO2 R03LGR1 00A00 A 000
FO4 R03LGR1 00A00 A 000



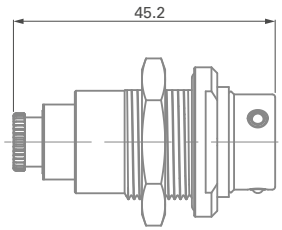
PANEL CUT-OUT



REAR ACCESSORIES

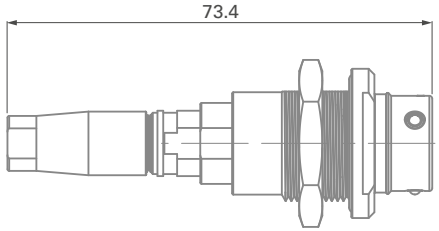
WIRE SET

FO2 R03-R13 WIRE SET L20 D6.5
FO4 R03-R13 WIRE SET L20 D6.5



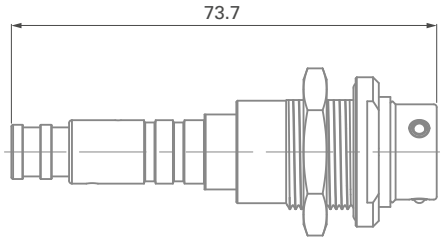
CABLE CLAMP SET

FO2-4 R03-R13 CABLE CLAMP SET L49 D6



POTTING SET

FO2-4 R03-R13 POTTING SET L49 D6.5



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Indicated connector P/N = delivered without contacts, termini and rear accessory

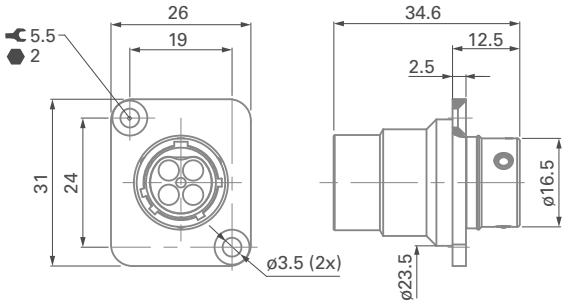
RECEPTACLES - FO2/FO4

PANEL FRONT MOUNTED

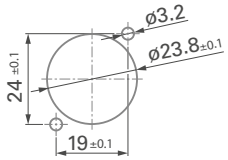
R13 - SQUARE FLANGE

BODY STYLE

Part number :
FO2 R13LGR1 00A00 A 000
FO4 R13LGR1 00A00 A 000



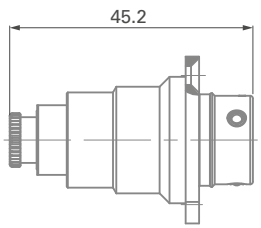
PANEL CUT-OUT



REAR ACCESSORIES

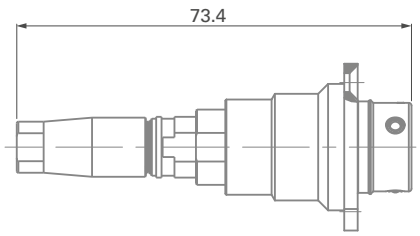
WIRE SET

FO2 R03-R13 WIRE SET L20 D6.5
FO4 R03-R13 WIRE SET L20 D6.5



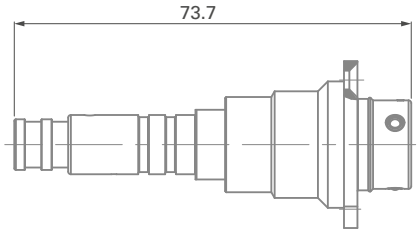
CABLE CLAMP SET

FO2-4 R03-R13 CABLE CLAMP SET L49 D6



POTTING SET

FO2-4 R03-R13 POTTING SET L49 D6.5



[1] Due to panel mounting with screws, sealing can't be guaranteed at panel level.
Indicated connector P/N = delivered without contacts, termini and rear accessory

All dimensions and images shown are in millimeters and are for reference only.

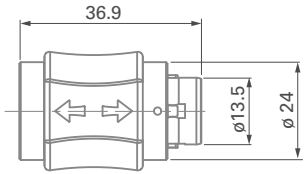
PLUGS - FOH

CABLE MOUNTED

P01

BODY STYLE

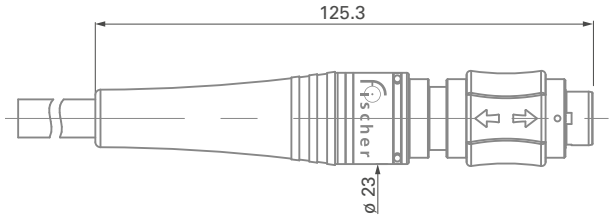
Part number :
FOH P01LGR1 00A00 A 000



REAR ACCESSORIES

POTTING SET

FOH P01 POTTING SET L54 D10.8



Indicated connector P/N = delivered without contacts, termini and rear accessory

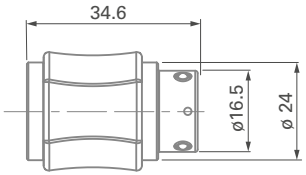
RECEPTACLES - FOH

CABLE MOUNTED

R50

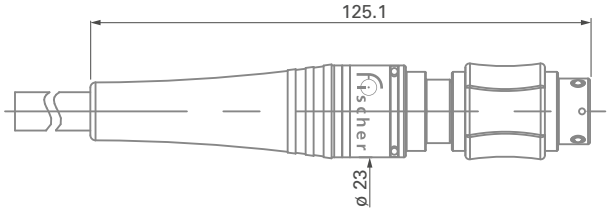
BODY STYLE

Part number :
FOH R50LGR1 00A00 A 000



POTTING SET

FOH R50 POTTING SET L54 D10.8



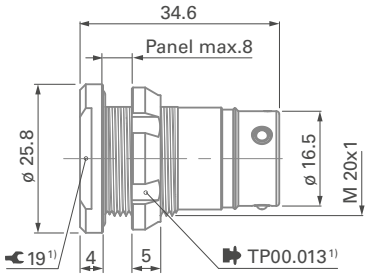
RECEPTACLES - FOH

PANEL REAR MOUNTED

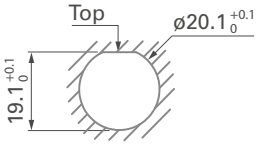
R01

BODY STYLE

Part number :
FOH R01LGR1 00A00 A 000



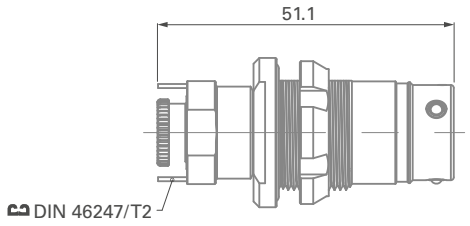
PANEL CUT-OUT



REAR ACCESSORIES

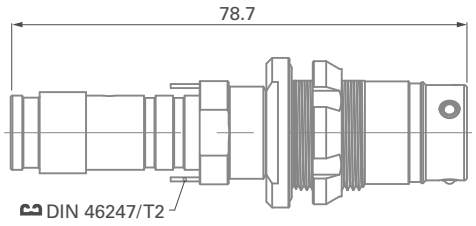
WIRE SET

FOH R01 WIRE SET L26 D8



POTTING SET

FOH R01 POTTING SET L54 D10.8



Indicated connector P/N = delivered without contacts, termini and rear accessory

All dimensions and images shown are in millimeters and are for reference only.

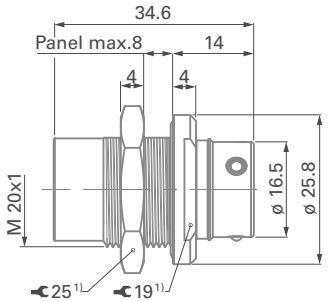
RECEPTACLES - FOH

PANEL FRONT MOUNTED

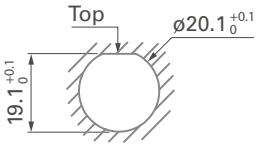
R03

BODY STYLE

Part number :
FOH R03LGR1 00A00 A 000



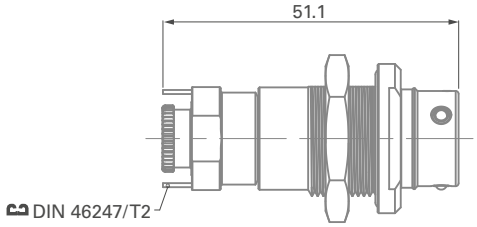
PANEL CUT-OUT



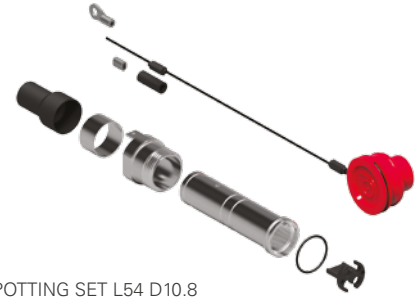
REAR ACCESSORIES

WIRE SET

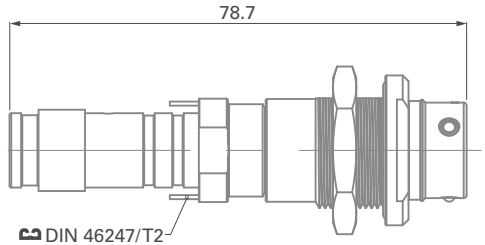
FOH R03-R13 WIRE SET L26 D8



POTTING SET



FOH R03-R13 POTTING SET L54 D10.8



[1] Torque 6.5 Nm. Torque (Nm) are recommended values that may be influenced by the quality of the panel surface. Tests have to be made to evaluate the exact values.
[2] For gas tightness performances, please contact us.
Note : indicated connector P/N = delivered without contacts, termini and rear accessry

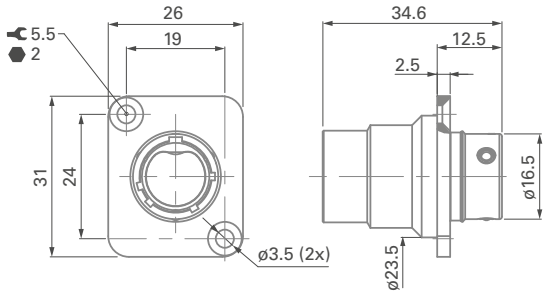
RECEPTACLES - FOH

PANEL FRONT MOUNTED

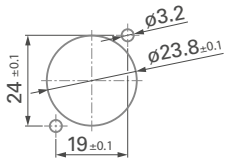
R13 - SQUARE FLANGE

BODY STYLE

Part number :
FOH R13LGR1 00A00 A 000



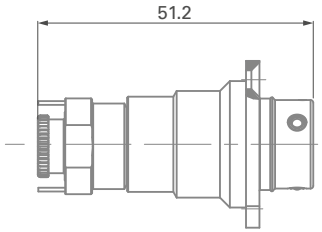
PANEL CUT-OUT



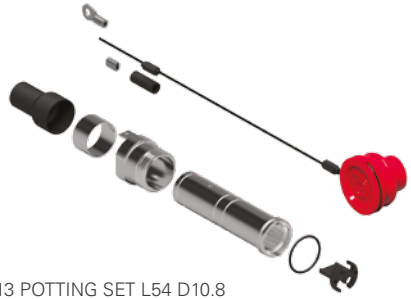
REAR ACCESSORIES

WIRE SET

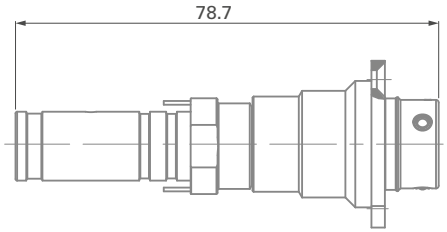
FOH R03-R13 WIRE SET L26 D8



POTTING SET



FOH R03-R13 POTTING SET L54 D10.8



[1] Torque 6.5 Nm. Torque (Nm) are recommended values that may be influenced by the quality of the panel surface. Tests have to be made to evaluate the exact values.
[2] For gas tightness performances, please contact us.
Note : indicated connector P/N = delivered without contacts, termini and rear accessry

All dimensions and images shown are in millimeters and are for reference only.

Designation	Housing	Part Number
Singlemode terminus	Black (default)	FOTERMINI SMA PC
	Beige	FOTERMINI SMA PC BG

Multimode terminus	Black (default)	FOTERMINI MMA PC
	Beige	FOTERMINI MMA PC BG

Electrical contact (FOH Only)	Black (default)	FOTermini EL M Ø1.25 SR A
	Beige	FOTermini EL M Ø1.25 SR A BG

Part numbering

	FO Type		Housing Design				Contacts			Rear accessory	Modification code
Example:	FO	4	P01	L	GR	1	04	S	00	W	000

Series

- **FO** = FiberOptic Series

Number of channels (optic +Electric)

- **1** = Single Channel
- **2** = Two Channels
- **4** = Four Channels
- **H** = Hybrid

Body style

Plugs
- **P01** = Cable mounted

Receptacles
- **R01** = Panel rear mounted, circular flange
- **R03** = Panel front mounted, circular flange
- **R13** = Panel front mounted, rectangular flange
- **R50** = Cable mounted

Locking System

- **L** = Push-pull locking system

Coating

- **GR** = Grey Nickel / Chrome plating

Leying code

- **1** = Code 1

Modification code

- **000** = Default
- **001** = White PBT Insulator
- **002** = Beige electrical contact / optical termini housing

Rear accessory

- **A** = Delivered without rear accessory
- **W** = Delivered with Wire Set accessory
- **C** = Delivered with Cable Clamp Set accessory
- **P** = Delivered with Potting Set accessory

Number of Electrical contacts (FOH only)

- **00** = Delivered without electrical contact
- **01** = Delivered with one electrical contact
- **02** = Delivered with two electrical contacts
- **03** = Delivered with three electrical contacts
- **04** = Delivered with four electrical contacts

Optical Contact Type

- **A** = Delivered without optical terminus
- **S** = Single-mode optical terminus
- **M** = Multi-mode optical terminus

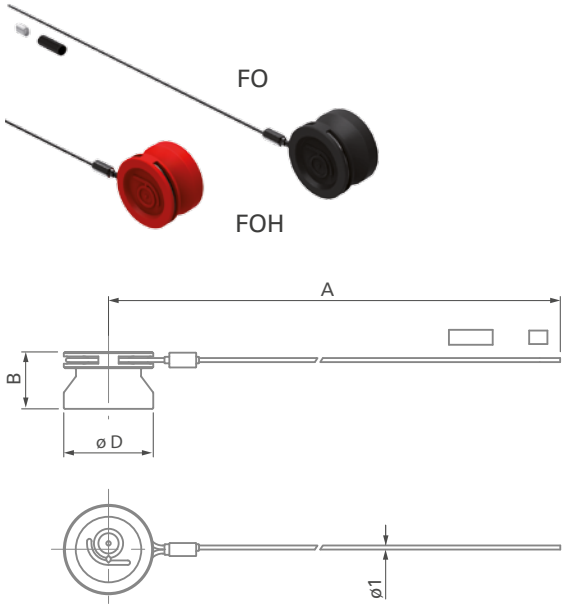
Number of Optical Termini

- **00** = Delivered without optical terminus
- **01** = Delivered with one optical terminus
- **02** = Delivered with two optical termini
- **03** = Delivered with three optical termini
- **04** = Delivered with four optical termini

All dimensions and images shown are in millimeters and are for reference only.

PROTECTIVE CAPS

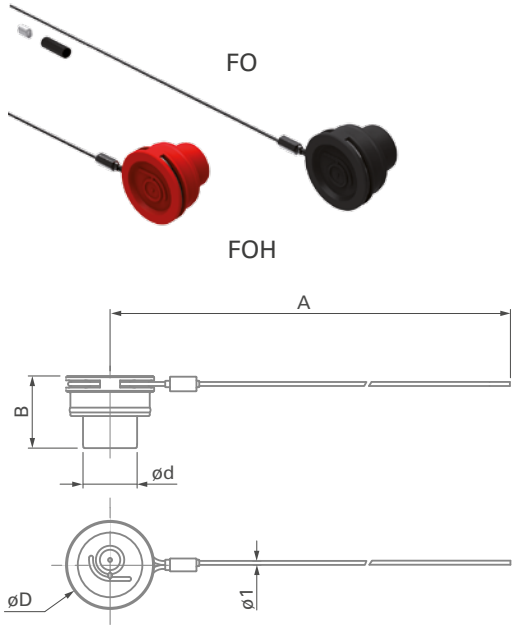
FOR REPLACEMENT
ON PLUGS



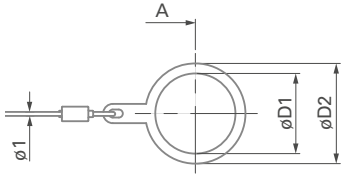
	Reference Number P01	A	B	ø D
FO1	FOCP06C 1B2 A120	120	10.5	13
FO2/4	FOCP14C 1B2 A150	150	14	22
FOH2-2	FOHCP14C 1B2 A150	150	14	22

Crimp ferrule and heat shrink tube are included.

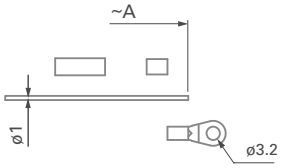
FOR REPLACEMENT
ON RECEPTACLES



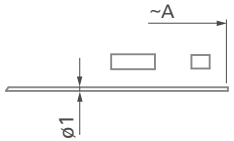
for receptacle R01



for receptacle R03-R13

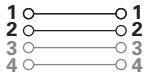


for receptacle R50



		Reference Number	A	B	ø d	ø D	øD1	øD2
FO1	**R01**	FOCR06P 1B2 A70	70	11.5	6	13	10	14
	R03-R13	FOCR06P 1B2 E150	150				-	-
	R50	FOCR06C 1B2 A120	120					
FO2/4	**R01**	FOCR14P 1B2 A110	110	14	13.5	22	20	25
	R03-R13	FOCR14P 1B2 E150	150	14	13.5	22	-	-
	R50	FOCR14C 1B2 A150						
FOH 2-2	**R01**	FOHCR14P 1B2 A110	110	14	13.5	22	20	25
	R03-R13	FOHCR14P 1B2 E150	150	14	13.5	22	-	-
	R50	FOHCR14C 1B2 A150						

DAISY CHAINING

Fiber type	Fiber count	Ref / ordering info
SM 9 (G657.A1)	2	FO2 DC 0 S9 AAA
	4	FO4 DC 0 S9 AAA
	Hybrid	FOH2-2 DC 0 S9 AAA
MM 50 (OM3)	2	FO2 DC 0 M5 AAA
	4	FO4 DC 0 M5 AAA
	Hybrid	FOH2-2 DC 0 M5 AAA
MM 62.5 (OM1+)	2	FO2 DC 0 M6 AAA
	4	FO4 DC 0 M6 AAA
	Hybrid	FOH2-2 DC 0 M6 AAA
Pin layout	Applies to all configurations	

LOOPBACK

Fiber type	Fiber count	Ref / ordering info
SM 9 (G657.A1)	4	FO4 LB 0 S9 AAA
MM 50 (OM3)	4	FO4 LB 0 M5 AAA
MM 62.5 (OM1+)	4	FO4 LB 0 M6 AAA
Pin layout	Applies to all configurations	

The use of caps is recommended for maximum robustness during handling.

All dimensions and images shown are in millimeters and are for reference only.

PRE-CONFIGURED REELS

		50 meter reels	100 meter reels
Fiber type	**Fiber count**	**Ref / ordering info**	**Ref / ordering info**
SM 9 (G657.A1)	1	FO1 P01P0 S9-050.0-00.0 P01P0 RAA	FO1 P01P0 S9-100.0-00.0 P01P0 RAA
	2	FO2 P01P0 S9-050.0-00.0 P01P0 RAC	FO2 P01P0 S9-100.0-00.0 P01P0 RAC
	4	FO4 P01P0 S9-050.0-00.0 P01P0 RAC	FO4 P01P0 S9-100.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 S9-050.0-00.0 P01P0 RAC	FOH2-2 P01P0 S9-100.0-00.0 P01P0 RAC
MM 50 (OM3)	1	FO1 P01P0 M5-050.0-00.0 P01P0 RAA	FO1 P01P0 M5-100.0-00.0 P01P0 RAA
	2	FO2 P01P0 M5-050.0-00.0 P01P0 RAC	FO2 P01P0 M5-100.0-00.0 P01P0 RAC
	4	FO4 P01P0 M5-050.0-00.0 P01P0 RAC	FO4 P01P0 M5-100.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 M5-050.0-00.0 P01P0 RAC	FOH2-2 P01P0 M5-100.0-00.0 P01P0 RAC

		150 meter reels	200 meter reels
Fiber type	**Fiber count**	**Ref / ordering info**	**Ref / ordering info**
SM 9 (G657.A1)	1	FO1 P01P0 S9-150.0-00.0 P01P0 RAA	FO1 P01P0 S9-200.0-00.0 P01P0 RAA
	2	FO2 P01P0 S9-150.0-00.0 P01P0 RAC	FO2 P01P0 S9-200.0-00.0 P01P0 RAC
	4	FO4 P01P0 S9-150.0-00.0 P01P0 RAC	FO4 P01P0 S9-200.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 S9-150.0-00.0 P01P0 RAC	FOH2-2 P01P0 S9-200.0-00.0 P01P0 RAC
MM 50 (OM3)	1	FO1 P01P0 M5-150.0-00.0 P01P0 RAA	FO1 P01P0 M5-200.0-00.0 P01P0 RAA
	2	FO2 P01P0 M5-150.0-00.0 P01P0 RAC	FO2 P01P0 M5-200.0-00.0 P01P0 RAC
	4	FO4 P01P0 M5-150.0-00.0 P01P0 RAC	FO4 P01P0 M5-200.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 M5-150.0-00.0 P01P0 RAC	FOH2-2 P01P0 M5-200.0-00.0 P01P0 RAC

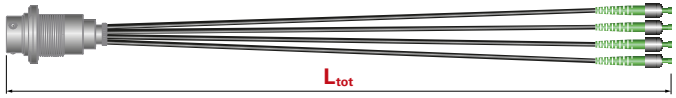
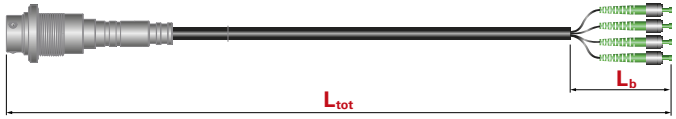
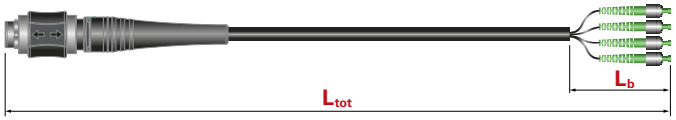
		300 meter reels	450 meter reels
Fiber type	**Fiber count**	**Ref / ordering info**	**Ref / ordering info**
SM 9 (G657.A1)	1	FO1 P01P0 S9-300.0-00.0 P01P0 RAA	FO1 P01P0 S9-450.0-00.0 P01P0 RAA
	2	FO2 P01P0 S9-300.0-00.0 P01P0 RAC	FO2 P01P0 S9-450.0-00.0 P01P0 RAC
	4	FO4 P01P0 S9-300.0-00.0 P01P0 RAC	FO4 P01P0 S9-450.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 S9-300.0-00.0 P01P0 RAC	-
MM 50 (OM3)	1	FO1 P01P0 M5-300.0-00.0 P01P0 RAA	FO1 P01P0 M5-450.0-00.0 P01P0 RAA
	2	FO2 P01P0 M5-300.0-00.0 P01P0 RAC	FO2 P01P0 M5-450.0-00.0 P01P0 RAC
	4	FO4 P01P0 M5-300.0-00.0 P01P0 RAC	FO4 P01P0 M5-450.0-00.0 P01P0 RAC
	Hybrid	FOH2-2 P01P0 M5-300.0-00.0 P01P0 RAC	-

Assembled on Schill drum with OCC cable (FO1) and LEONI cable (FO2, FO4, FOH 2-2).

CONFIGURE YOUR SOLUTION

Quantity - Please use one request form per cable assembly type

Cable assembly types

	End A	End B
Patch cord		
Receptacle		
Gas tight receptacle		
Breakout		
Single Fiber		

Drawings are for reference only. All types exist for FO1, FO2, FO4 and FOH 2-2.

End A

FiberOptic connectors

- P01 - Plug
- R50 - Receptacle *cable mounted*
- R01 - Receptacle *panel rear mounted*
- R03 - Receptacle *panel front mounted*
- R13 - Receptacle* *panel square flange*

Contact End-face
Available for SM only

- 0° PC
- 8° APC

Assembly

Total length* L_{tot}
end-to-end total
(min. 0.5 except receptacles)

- 1 meter
- 2 meters
- _____

Breakout length* L_b
for breakout & gas tight
(if applicable / min. 0.3, max 2.0)

- 0.5 meter
- 1 meter
- _____

Short length receptacles
For receptacles <0.5 meters
900 µm buffered fibers wires

For receptacles ≥ 0.5 meters
2.0 mm tight buffered wires

End B

FiberOptic connector

- CNA - Free end No Connector
- P01 - Plug
- R50 - Receptacle *cable mounted*
- R01 - Receptacle *panel rear mounted*
- R03 - Receptacle *panel front mounted*
- R13 - Receptacle *panel square flange*

Telecom connector

- LC
- SC
- FC
- ST

Contact End-face
Available for SM only

- 0° PC
- 8° APC

*Cable length in 0.1 meter units only.
Cable length tolerance according IPC-WHMA-A-620.

CHOOSE YOUR CABLE

		INDOOR/OUTDOOR			
Supplier Brand	**Fiber Count**	**SM 9/125 G.657.A1**	**MM 50/125 OM3**	**MM 62.5/125 OM1+**	
OCC	1	☐	☐	☐	
	2	☐	☐	☐	
	4	☐	☐	☐	
LEONI	2	☐	■	■	
	4	☐	■	■	
LEONI	Hybrid 2+2	☐	☐	■	

		RODENT PROOF			
Supplier Brand	**Fiber Count**	**SM 9/125 G.657.1.A1**	**MM50/125 OM3**	**MM 62.5/125 OM1+**	
LEONI Glass Fiber	2	☐	☐	■	
	4	☐	☐	■	
		METAL ARMORED			
KAIPHONE	1	☐	■	■	
BRUGG	2	☐	■	■	
	4	☐	■	■	

See our Cable Specifications for detailed information.

☐ Available ■ Available under special lead time - please contact your local sales departement for details.

Outdoor cable features	**OCC**		**LEONI**	**LEONI**	**KAIPHONE**	**BRUGG**
Available for	**FO1**	**FO2, FO4**	**FO2, FO4**	**FO2, FO4**	**FO1**	**FO2, FO4**
Best for	**Premium application**		**High load application**	**Rodent proof**	**Metal armored**	**Metal armored**
	- Overall ruggedness - Easy deployment - High end tactical cable		- High load resistance - Easy deployment - High end tactical cable	- Semi-static applications - Easy deployment - Dielectric rodent protection - High flexibility	- High rodent protection - Static & deployable applications - Ultra-light armored technology - Sensing applications	- High rodent protection - Static & deployable applications - Self supporting applications - Ultra-light armored technology - Direct burial
Technology	-Tight buffered fibers - Aramid yarn - PUR jacket		-Tight buffered fibers - Aramid yarn - PUR jacket	-Tight buffered fibers - Aramid yarn / - PUR double skin jacket	- Stainless steel loose tube - Aramid yarn - LDPE jacket	- Stainless steel loose tube - Stainless steel yarn - PA Jacket
Outer diameter	2.9 mm	5.5 mm	5.5 mm	9.4 mm	3.0 mm	3.8 mm
Weight	8 kg/km	27 kg/km	28 kg/km	105 kg/km	18 kg/km	25 kg/km
Operating tensile load	300 N	600 N	1500 N	2000 N	300 N	900 N
Crush resistance	500 N/cm	1800 N/cm	800 N/cm	800 N/cm	300 N/cm	800 N/cm
Min. bending radius	1.5 cm	3.3 cm	5.5 cm	9.4 cm	3.0 cm	5.7 cm
Operating temperature	-40°C to +85°C		-55°C to +85°C	-55°C to +85°C	-40°C to + 85°C	-40°C to + 70°C

COLOR SILICON RINGS

FO1 – FOCR06

- Beige
- Red
- Blue
- Green

FO2/4/H – FOCR14

- Beige
- Red
- Blue
- Green

OPEN END SPANNER

FO1

- TX00.004
- TX00.014
- TX00.011

FO2/4/H

- TX00.019
- TX00.025

HEXAGON SPANNER

FO1 - R13

- TX00.384

NUT DRIVER

FO1

- TC00.007

FO2/4/H

- TP00.013

SLEEVES HOLDER MATE ADAPTER

FO1

- FOP06 Sleeve Holder

FO2/FO4

- FOP14 Sleeve Holder

PANEL SEALS

FO1

- FO R13 Panel Seal FO1

FO2/4/H

- FO R13 Panel Seal FO2/4/H

TELECOM MATE ADAPTERS

- LC Adapter SM/APC
- LC Adapter SM/UPC
- LC Adapter MM/UPC

- SC Adapter SM/APC
- SC Adapter SM/UPC
- SC Adapter MM/UPC

- FC Adapter SM/APC
- FC Adapter SM-MM

- ST Adapter SM-MM

PRE-CABLED REELS*

- GT235.RM
- GT310.RM
- GT380.RMFK
- GT450.RMFK
- HT582.RM

DEPLOYMENT ACCESSORY

- Wedge Clamp Black Jaws

FIBER OPTIC CLEANING KIT

- **FO Cleaning Kit (complete kit)**

Cleaning kit components

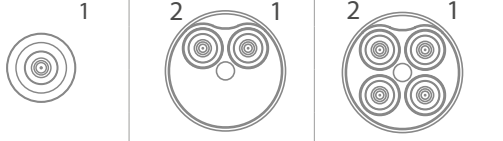
- Laser pen
- Laser pen adapter
- IBC brand cleaner H125
- Precision tweezers
- 50 alcohol wipes

* Pre-configured reels can be found on page I 18.
Reel selection can vary following cable choice and length.
Contact your local sales for details or visit: **www.fischerconnectors.com/fiberoptic**

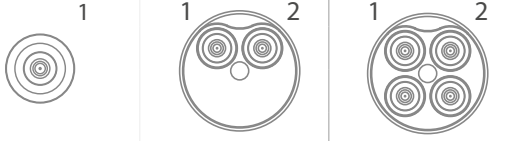
FIBER TYPE AND PIN LAYOUT

Contact type		Fiber standards
Single-mode 9/125	UPC	G.657.A1
Single-mode 9/125	APC	
Multi-mode 50/125	-	OM3
Multi-mode 62.5/125	-	OM1+

Plug pin layout



Receptacle pin layout



OPTICAL DATA

Characteristic	Performance		Standard
Insertion loss	SM and MM	≤0.20 dB mean	IEC 61300-3-34 Random mated
		≤0.45 dB max for >97% of samples	
		≤0.2 dB change during and after testing	IEC 61300-3-3
Return loss	SM UPC	≥50 dB	IEC 61300-3-6 Random mated
	SM APC	≥70 dB (mated) and ≥50 dB (unmated)	

ENVIRONMENTAL & TECHNICAL SPECIFICATION

Characteristic	Performance	Standard
Sealing mated	IP68; 2m submersion for 24 hours[1)]	IEC 60529
Sealing unmated	IP67[1)]	IEC 60529
Operating temperature range	-40°C to +85°C (cable dependent)	IEC 61300-2-22
Vibration	Sinusoidal, 10 - 55Hz, 3 axes, 0.75 mm amplitude (max 10g)[1)]	IEC 61300-2-1
Shock	100 g[1)]	IEC 61300-2-9
Salt mist	1,000 hours, 5% salt solution, 35°C[1) 2)]	IEC 61300-2-26
Mating durability	1,000 mating cycles[1) 3)]	IEC 61300-2-2

[1)] Exceeds IEC 61753-1 Cat.E Extreme Environment.
[2)] Connector must be mated or with cap.
[3)] Recommended cleaning every 50 cycles.

ELECTRICAL DATA - FOH 2-2

Characteristic	Performance	Standard
Contact count	2 contacts, ground by shell	-
Current	10 [A] [1]	IEC 60512-5-2-5b
Rated voltage	400 [V] r.m.s. [2] [3]	EIA-364-20-B
Contact resistance (power contact)	< 10 mΩ	IEC 60512-2-1-2a
Contact resistance (ground contact)	< 50 mΩ	IEC 60512-2-1-2a
Insulation resistance	> 10^{10} Ω	IEC 60512-3-1-3a
Contact termination	Solder	-
Wire size	AWG17 / 1 mm^2	-
Test voltage AC	1.5 [kV] r.m.s	IEC 60512-4-1 Test 4a
Test voltage DC	2.8 [kV]	IEC 60512-4-1 Test 4a

[1] Current per contact at 40°C temperature rise measured on the basic curve according to IEC 60512-5-2-5b. For the max. operating current a reduction factor must be used and limitations due to the size of the wires and the permissible upper temperature limit of the materials employed must be taken into account. See page A17 for details.

[2] Recommended operating voltage at sea leavel measured according to IEC 60664-1. This rated voltage is a general purpose guideline where no other electrical standard applies. In case where other standard rule a specific use of the connectors, the application-specific safety criteria shall be considered first. This must be evaluated within the framework of equipment engineering. In case where other calculation methods are preferred, please use the Test voltage to determine the specific operating voltage.

[3] Based on IEC 61984 safety requirements, Fischer Connectors recommends that, for operating voltage > 50V, power should not be used without integration of an active security system. Please contact us for further information.

MATERIAL & SURFACE TREATMENT

Metal parts	Material		Finish	
	Designation ISO	Standard	Designation	Standard
Housing, nut	Brass CuZn39Pb3	CW614N UNS C 38500	Chrome over Nickel	SAE-AMS 2460
Back nut (plug) FO1	Brass CuZn39Pb3	CW614N UNS C 38500	Black Chrome over Nickel	SAE-AMS 2460
Back nut (plug) FO2, FO4, FOH 2-2	Brass CuZn39Pb3	CW614N UNS C 38500	Nickel	SAE-AMS-QQ-N-290 SAE-AMS 2404
Electrical contact	Brass CuZn39Pb3	CW614N UNS C 38500	1µm Gold over Nickel	MIL-DTL-45204D Type 1 + ASTM B488 / SAE-AMS-QQ-N-290 / SAE-AMS 2404
Shell contact	Stainless steel	X5CrNiMo18-10 (1.4401)	-	-
Spring	Stainless steel	X10CrNi18-8 (1.4310)	-	-
Mantel clip	Stainless steel	X5CrNiMo18-10 (1.4401)	-	-
Sleeve holder (plug) FO1	Brass CuZn39Pb3	CW614N UNS C 38500	Nickel	SAE-AMS-QQ-N-290 SAE-AMS 2404
Sleeve holder shaft FO2, FO4, FOH 2-2	Stainless steel	X8CrNiS18-9 (1.4305)	-	-
Locking balls	Stainless steel	X46Cr13 (1.4034)	-	-

Non metallic parts	Material	Flammability
Ferrules & sleeves	Zirconia	-
Contact housing	LCP	UL 94 V-0
Contact bloc & sleeves holder	PBT	UL 94 V-0
	PEEK	-
Mantel ring	PTFE	UL 94 V-0
O-rings	FPM (Viton®)	UL 94 V-0
	NBR (Nitrile)	-
Sealant material	Bi-component epoxy	-
Cable strain relief	TPE	UL 94 HB
Caps	TPE	UL 94 HB
Locking protection sleeve	TPE	UL 94 HB