

CFO-A 2 | Dual Channel Fiber Optic Rotary Joint



The Conductix-Wampfler FORJ type CFO-A 2 provides true dual channel data transmission over rotating joints in all industrial automation applications, including machine tools, automated packaging, rotary stages, wind turbines, offshore rigs, materials handling, etc. where explosion-proof products are needed.

Its rugged construction from stainless steel, with F-SMA connectors and a high-density polyethylene (PE-HD) protective sheath makes it ideal for extreme environmental conditions.



CONDUCTIX
wampfler

Main Features

Excellent optical performance for blue 470 nm, green 525 nm and red 650/660 nm wavelengths with low channel crosstalk and high channel isolation. Pre-installed optical cable with connectors - up to 50 m total length.



CFO-A 2 / 0 / LA / LB / VS

Fiber length of each channel:

side A [m] (*)

side B [m] (*)

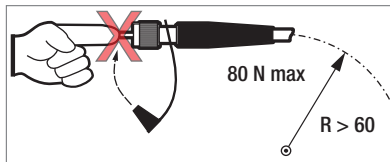
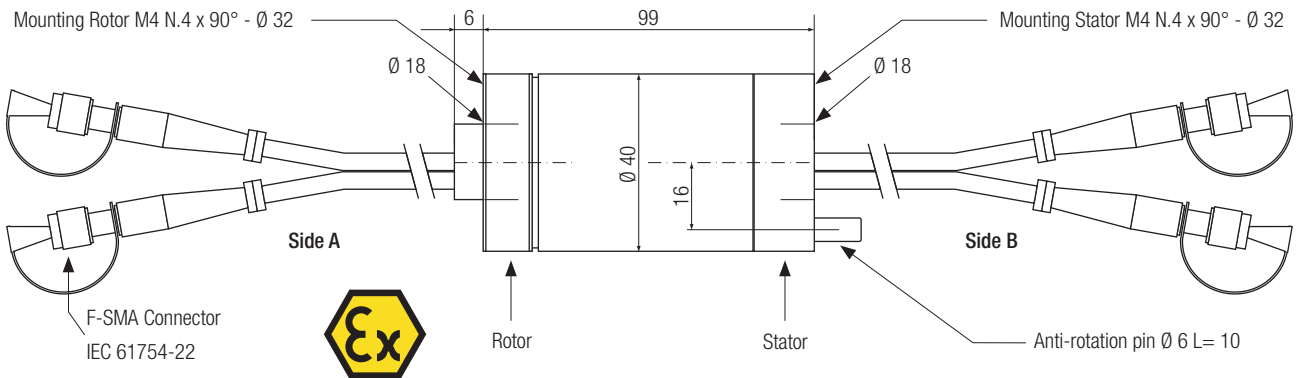
Versions: ST = Standard; OS = Off Shore

* Total fiber length per channel (side A + side B) ≤ 50 m

The code 00 means 0.5 m of fiber on the specific side

E.g. CFO-A 2 / 0 / 08 / 10 / ST = 2 Passive optical channels /

8 m POF side A / 10 m POF side B / Standard version




All dimensions are in millimeters.

Do not secure the two parts of the FORJ in a rigid manner. Do not match the FORJ to a laser light.

Avoid contacting the Plastic Optical Fiber with fingers, alcohol, solvents, oils, greases, dust (always apply the protective plastic cap).

General Data	
No of passive optical channels	2
Fiber type	Plastic Optical Fiber (POF)
Fiber core/cladding diameter	980/1000 µm
Fiber bandwidth	30 MHz * 100 m
Fiber attenuation @ 650 nm	150 dB / km
Fiber numerical aperture	0.46
External sheath of the optical cable	PE-HD type M1, yellow, D = 4 mm
Standard length of the optical cables	2 × (0.5 + 0.5) m
Connectors	F-SMA (IEC 61754-22)
Weight	800 g
Housing material - standard / off shore	Grade 303 / Grade 316 Stainless Steel
Optical Characteristics	
Max. attenuation Ch1 @ 650 nm	6 dB
Max. attenuation Ch2 @ 650 nm	10 dB
Attenuation variation Ch1 @ 650 nm	1.5 dB
Attenuation variation Ch2 @ 650 nm	2.5 dB

Mechanical Characteristics	
Max. rotating speed	300 rpm
Lifetime (min)	> 15 million revs
Max. pulling force of the cables	80 N
Bending radius of the optical cable	> 60 mm
Start up torque	0.1 Nm
Vibration test	EN 60068-2-64 (5-300 Hz random / 10g)
Structural shock test	EN 60068-2-27; MIL-STD-810F; (semisinus 200 g / 6 ms)
ATEX marking	 II 1GD c IIC T5 IP65 -25°C<Ta<+70°C
Environmental Characteristics	
Operating temperature	-25°C ... +70°C
Storage temperature	-40°C ... +85°C
Degree of protection	IP65

- Also available as a package with our CFC media converters (see datasheet CFC) for industrial real-time Fast Ethernet (100 Mbps) transmission
- Gigabit ethernet ready