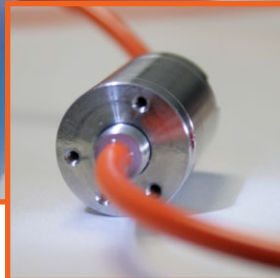


# CF0 1 | Single Channel Fiber Optic Rotary Joint



The Conductix-Wampfler FORJ type CF0 1 provides light transmission over rotating joints in all industrial automation applications, including machine tools, automated packaging, rotary stages, wind turbines, offshore rigs, materials handling, etc.

Its rugged construction from stainless steel, with F-SMA connectors and a polyurethane (PUR) protective sheath makes it ideal for extreme environmental conditions.



# Main Features

Excellent optical performance for blue 470 nm, green 525 nm and red 650/660 nm wavelengths. Pre-installed optical cable with connectors.



CFO 1 / 0 / LA / LB / VS

Fiber length of each channel:

side A [m] (\*)

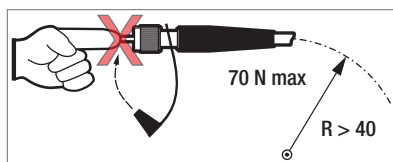
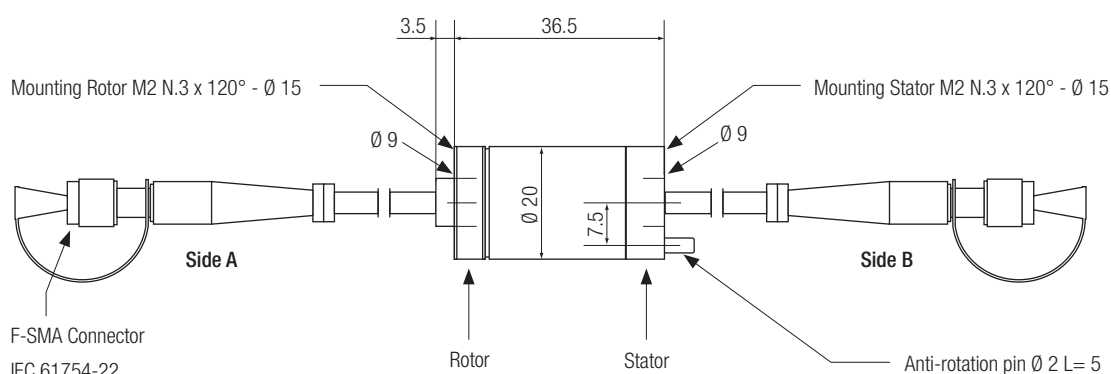
side B [m] (\*)

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 1 / 0 / 08 / 10 / ST = 1 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	1
Fiber type	Plastic Optical Fiber (POF)
Fiber core/cladding diameter	980/1000 µ m
Fiber bandwidth	30 MHz * 100 m
Fiber attenuation @ 650 nm	150 dB / km
Fiber numerical aperture	0.46
External sheath of the optical cable	PUR, orange, D = 4 mm
Standard length of the optical cables	(0.5 + 0.5) m
Connectors	F-SMA (IEC 61754-22)
Weight	90 g
Housing material - standard / off shore	303 Grade / 316 Grade Stainless Steel
Optical Characteristics	
Max. attenuation @ 650 nm (red light), connectors and POF excluded, variations included	< 3 dB
Attenuation variation (@ 650 nm)	0.5 dB

Mechanical Characteristics	
Max. rotating speed	300 rpm
Lifetime (min)	> 15 million revs
Max. pulling force of the cables	70 N
Bending radius of the optical cable	> 40 mm
Start up torque	0.03 Nm
Vibration test	EN 60068-2-64 (5-300 Hz random / 10 g)
Structural shock test	EN 60068-2-27; MIL-STD-810F; (semisinus 200 g / 6 ms)
Environmental Characteristics	
Operating temperature	-25°C ... +70°C
Storage temperature	-40°C ... +85°C
Degree of protection	IP65