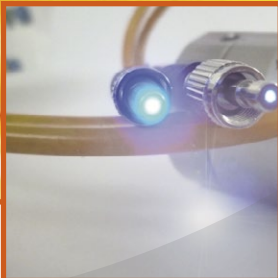


CFO 2 | Dual Channel Fiber Optic Rotary Joint



The Conductix-Wampfler FORJ type CFO 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.

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 with low channel crosstalk and high channel isolation. Pre-installed optical cable with connectors.

OEM Supply or Field Replacement

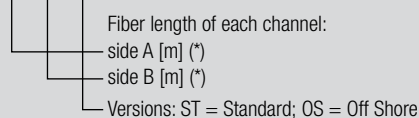
Conductix-Wampfler offers the FORJ with customizable POF length for individual OEM requirements or alternatively as a direct replacement for existing electrical or optical joints.

Full Duplex Data Transmission

- Dual channel
- Maintenance free
 - No wear debris generation
 - No lubrication required
 - No periodic inspections required
- Wide operating temperature
- Lower life cycle cost
- High reliability
- Consistent performance over lifetime
- High speed capability - up to 300 rpm
- High quality / low loss POF fiber

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	PUR, orange, 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	L 105 mm × Dia 40 mm
Housing material - standard / off shore	303 Grade / 316 Grade Stainless Steel
Optical Characteristics	
Max. attenuation Ch1 @ 650 nm, connectors and POF excluded, variations included	10 dB
Max. attenuation Ch2 @ 650 nm, connectors and POF excluded, variations included	6 dB
Attenuation variation Ch1 (@ 650 nm)	1.5 dB
Attenuation variation Ch2 (@ 650 nm)	2.5 dB
Cross talk	> 30 dB
Insulation	> 30 dB
Bandwidth @ -3dB; CF02/00/00 (decreases with the POF length)	> 600 MHz (Gigabit Ethernet Ready)
Mechanical Characteristics	
Max. rotating speed	300 rpm
Lifetime (min)	> 15 million revs
Max. tension on optical cables	80 N
Bending radius of the optical cable	> 40 mm
Start up torque	0.1 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

CF0 2 / 0 / LA / LB / VS



* 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. CF0 2 / 0 / 08 / 10 / ST = 2 Passive optical channels / 8 m POF side A / 10 m POF side B / Standard version