FJ1
Single Channel

BGB™

Multimode 50/125 Single Channel Pig-Tailed FORJ

BGB Part No: **GA5942-125**

Fibre Optic Rotary Joint (FORJ) for high-speed data transfer. Constructed from Stainless Steel, this unit is designed to be chemically resilient and rugged.

For best optical performance this FORJ is supplied with fibre leads which are terminated in LC/PC connectors as standard. For alternative lead length and termination options please contact BGB.

Rigorously tested in BGB's environmental test facility and in UKAS accredited test facilities to military vibration test standards.

Other fibre designations are available at request.

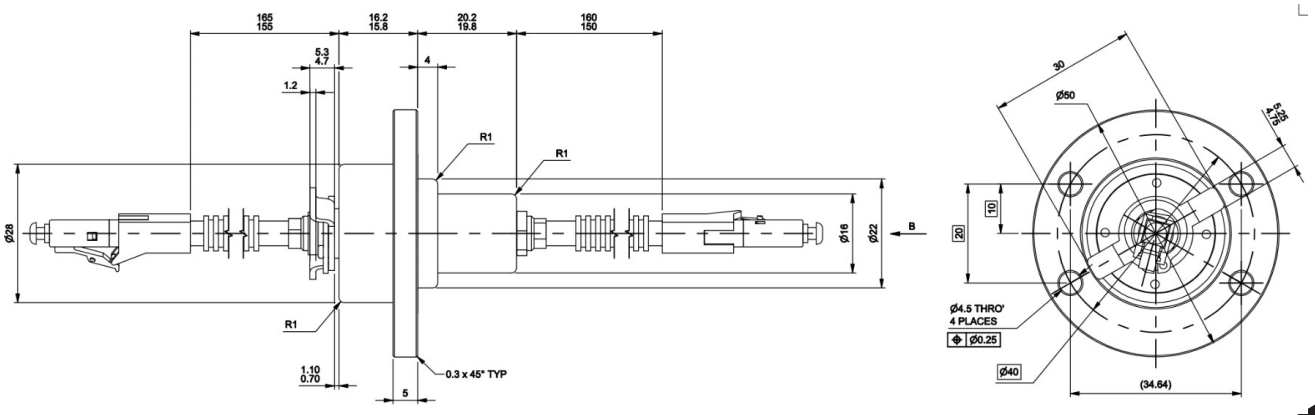
Table 1. Packaging/envelope properties

Property	Value	Standard (where applicable)
Fibre type	50/125 OM2, graded index	ISO 11801
Cable jacket	Low-smoke zero halogen, resilient to hydraulic oils	IEC 60332-1
Termination	LC	IEC 60784
Termination polish	PC	
Diameter[1] (mm)	28/10	
Length[2] (mm)	52.5	
Mass[3] (g)	170	
Casing	Stainless Steel 303	

Table 2. Optical properties

Property	Value	Standard (where applicable)
Insertion loss typical/maximum (dB)	1.5/3.0	IEC 61300-3-4:2012
Variation Insertion Loss typical/maximum (dB)	0.5/1.0	
Return loss typical/minimum (dB)	28/25	IEC 61300-3-6:2008
Wavelength, nm	1310 & 1550	

[1] Largest/smallest diameter excluding flange
[2] Excluding pig-tail leads
[3] Inc pig-tail leads & flange. Mass may vary depending on pig-tail length & flange size



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The FJ (Fibre Joint) Series of FORJ's can be used in many different industries ranging from Renewable Energy such as Wind Turbines, through to Robotics, Radar, Drone, ROV, Military, Packaging and many other high data transfer technologies.

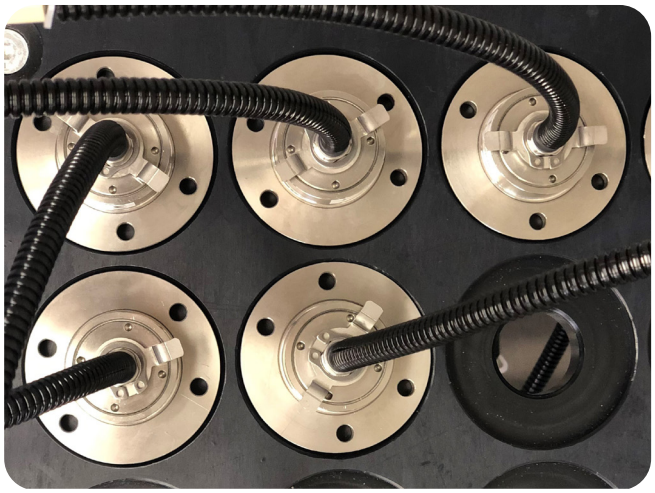
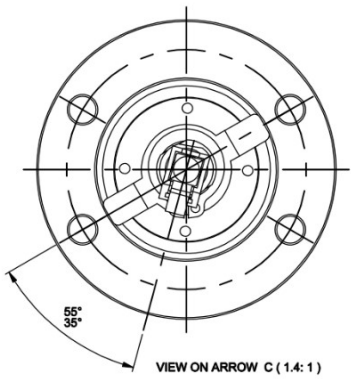


Table 3. Mechanical properties

Property	Value	Standard (where applicable)
Lifetime, million cycles	>50	ISO 281
Start-up torque (N·m)	2.0	
Running torque (N·m) Across all temperatures	0.5-1.5	
Vibration	20-2000Hz 3 dB/Oct (20-80 Hz) 0.04 g²/Hz (80-350 Hz) -3 dB/Oct (350-2000Hz) RMS Level: 6 grms	MIL-STD-810G, IEC 61300-2-1:2009

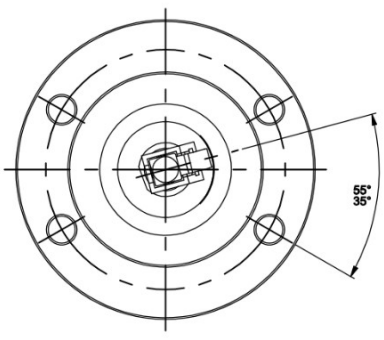
Table 4. Environmental properties

Property	Value	Standard (where applicable)
IP rating	IP68	IEC 60529, EN 60529, IEC 61300-2-45:1999
Operating temperature range, °C	-30°C to 85°C	IEC 61300-2-21:2009
Survival temperature, °C	-40°C to 85°C	



VIEW ON ARROW C (1.4: 1)

VIEW SHOWING ALLOWABLE ANGULAR POSITION OF LC CONNECTOR



VIEW ON ARROW B (1.4: 1)

VIEW SHOWING ALLOWABLE ANGULAR POSITION OF LC CONNECTOR

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