

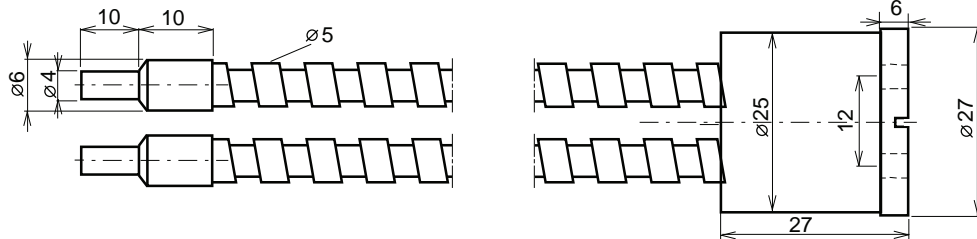

0158 Glass Fibre Optics MS-xxxx-2-L-1GD / MS-xxxx-2-L-2GD / MS-xxxx-2-L

II 1 GD IIB T135°C (T4)
 oder
II 2 GD IIB T135°C (T4)

- Yellow brass protection sheath, for light barrier function
- MS-....-2-L-1GD: Applicable in Ex Zones 0, 1, 2, 20, 21, 22
- MS-....-2-L-2GD: Applicable in Ex Zones 1, 2, 21, 22
- MS-....-2-L: Applicable in Non-Hazardous Locations up to TA=+200°C

Technical data	Type	MS-xxxx-2-L-1GD	MS-xxxx-2-L-2GD	MS-xxxx-2-L
		Applicable in Ex Zones	Applicable in Ex Zones	Not for Hazardous Locations
Standard length	MS-xxxx-2-L(-G/D) (xxxx=Length in mm, 1000, 2000)			
Type of Ex Protection: Protection by constructional safety at EN 13463-5:2002	Yes	Yes	No	
Applicable in Hazardous Locations, Zones	0, 1, 2, 20, 21, 22	1, 2, 21, 22	--	
ATEX designation	II 1GD IIB T135°C (T4)	II 2GD IIB T135°C (T4)	--	
Requirement on connected sensors	Limited optical power at DMT 99 ATEX E056			None
Maximum optical input power	<=35mW	<=35mW	Not limited	
Maximum potential radiant intensity	<= 5mW/mm ²	<= 5mW/mm ²	Not limited	
Active fibre optic diameter	2 mm			
Active cross-sectional area	Emitter = 3.14mm ² / Receiver = 3.14mm ²			
Transmission rate, average	50-70%, at 880nm			
Optical aperture	appr. 65°, at 880nm			
Individual fibre diameter	50µm			
Minimum bending radius	50mm (Single bend)			
Operating temperature range TA	0°C < TA < +120°C		-20°C <TA< +200°C	
Enclosure rating at EN 60529	IP 68			
Material, adaption probe tip	Special steel, V2A			
Material, probe tip	Special steel, V2A			
Material, protection sheath	Brass, chromium plated			
Accessories, included	2 x Shrink-down plastic tubing		--	
Certificated accessories	- Optical probes, designation: OT-VA (Material: Brass, Ni plated)			
ATEX Designation of the fibre optics	CE 0158 Type marking: MS-...-1GD Type marking: MS-...-2GD MS-...-1GD: Certification No: MS-...-2GD: Declaration by manufacturer at 94/9/EC Tech. File Ref.: AN-MAT-04-EX-LWL:2004 TA: 0°C < TA < +120°C Production date: Numerals 4 to 7 of the serial number			

Dimensions:


Ex mounting prescriptions

Types MS-....-1GD: Only applicable in Ex zones 0, 1, 2, 20, 21, 22.
Types MS-....-2GD: Only applicable in Ex zones 1, 2, 21, 22.

General regulations for all types:

The fibre optics must only be operated with the ATEX certificated sensor (DMT 99 ATEX E056) with limited optical output power of 35mW. The local equipotential bonding have to be done by grounding the fixed ATEX sensor. It is necessary to take into consideration the valid international and national rules and regulations (EN 60079-14). The maximum rated optical input power must not be exceeded. Other than original manufacturer, additional optical lenses are not allowed in hazardous locations. The fibre optics have to be installed in a manner to avoid tensile stress and frictional heat. If fibre optics and associated sensors are not mounted in the same hazardous location, the change over of the different areas must be realized in accordance with the valid regulations. With the additional shrink-down plastic tubings (only types MS-...-1GD) a required change over can be realized.

Function

The fibre optics series MS.. are designed for the construction of light barriers in hazardous locations and for high ambient temperatures. The fibre optics can be operated with certificated Matrix sensors, with an optical wave length from 500nm to 900nm. The fibre optics must not be buckled or laid with a small radius. Buckled or bad laid fibre optics results to a strong decrease of performance. Avoid performance decreasing and failures caused by wear, by a functional mounting of the fibre optics.

Maintenance

The fibre optics are maintenance-free. Protect the fibre optics against pollution. If they are contaminated, clean with alcohol. Do not use aggressive solvents.

Operating Manual / EC - Declaration of Conformity:
General Notes

We reserve the right to modify our equipment. Our equipment is designed such way, that it has the least possible adverse effect on the environment. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations. Equipment must only be repaired or serviced by the manufacturer.

Safety Informations

When installing and operating, it is necessary to take into consideration the relevant international and other national regulations. ATEX 118a, ElExV, TRbF, TRD, UVV, EX-RL(BGR104), BetrSichV, single directive 1999/92/EG.

Standards met:

- EN 13463-1:2002, EN 13463-1 Annotation 1:2003
- IEC 60079-28 Ed.1.0 CDV; EN 60529:2000
- Ex-Protection: 94/9/EG (ATEX 100a)
- Machine directive: 98/37/EC
- RoHS: 2002/95/EC
- Tech. File Ref: AN-MAT-04-EX-LWL:2004

Declaration of Conformity:

MS-...-1GD: EC type certification No:BVS 03 ATEX H 047 X
 MS-...-2GD: Declaration of conformity by manufacturer at 94/9/EC.
 Tech File No: AN-MAT-04-EX-LWL:2004
 ATEX certification of quality type production of Ex devices at the directive 94/9/EC Certification No: BVS 03 ATEX ZQS / E118
 The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001:2000 with the ATEX module "Production", declares:

Hans Bracher, Matrix Elektronik AG

MAT_MS_....-2-L-1GD_2GD_e6/2008-07-21/HB

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