


 II 2G IIB T4 Gb
 II 2D IIB T135°C Db

Optical fibre type SK-M18-xxxx-1-T-yy-FG(-2GD)

- Silicone rubber protection sheath
- For rotation speed detection together with the sensor type PSD-LTD-GD
- SK-M18-...-2GD: For use in Ex zones 1, 2, 21, 22
- SK-M18-...: Only for use in Non-Hazardous Locations

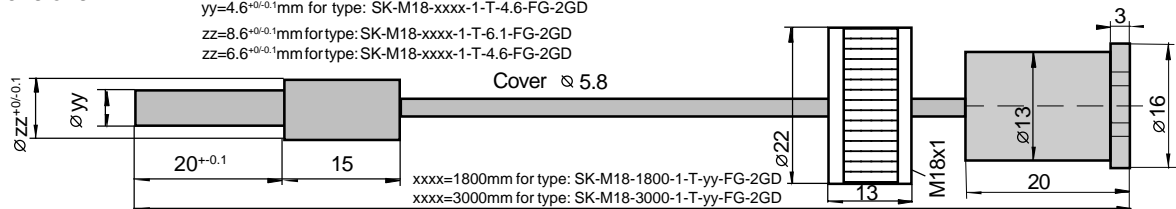
Technical Data	Type	SK-M18-xxxx-1-T-yy-FG-2GD	SK-M18-xxxx-1-T-yy-FG
		xxxx=Length in mm / yy=Probe diameter in mm / FG=fibres mixed	
Standard length		1800mm, 3000mm (tolerance: +-50mm)	
Type of Ex Protection, Gas		II 2G IIB T4 Gb	None
Type of Ex Protection, Dust		II 2D IIB T135°C Db	None
For use in Ex zones		Zones 1,2 and 21, 22	None
Requirement on connected sensors		Ex op is Gb, Db	not specified
Maximum optical input power		<=35mW	not limited
Maximum potential radiant intensity		<= 5mW/mm ²	not limited
Active fibre optic diameter		1 mm	
Active cross-sectional area		1.57mm ² / emitter: 0.78mm ²	
Optical aperture		appr. 70°	
Transmission rate, average		ca. 55%, at 650nm	
Optical loss		0.16dB/m, at 650nm light wave length	
Individual fibre diameter		50um	
Minimum bending radius		30mm (Single bend)	
Operating temperature range T _{amb}		0°C < T _{amb} < +120°C	-20°C < T _{amb} < +120°C
Enclosure rating at EN 60529		IP 68	
Construction		Glass fibre core, protected by silicone rubber, special steel V2A reinforced sheathing	
Material, adapter and probe		Stainless steel 1.4305	
Material, protection sheath		Silicone rubber, special steel V2A reinforced	
Material, core		Glass fibre type S68	
ATEX related designations		CE 0158 Type marking: SK-M18-...-2GD EC-Type Certification No. BVS 10 ATEX E130 X Date of construction: Numeral 5 to 8 of the serial number (year/calendar week)	

Dimensions:

 yy=6.1^{+0.1}mm for type: SK-M18-xxxx-1-T-6.1-FG-2GD

 yy=4.6^{+0.1}mm for type: SK-M18-xxxx-1-T-4.6-FG-2GD

 zz=8.6^{+0.1}mm for type: SK-M18-xxxx-1-T-6.1-FG-2GD

 zz=6.6^{+0.1}mm for type: SK-M18-xxxx-1-T-4.6-FG-2GD

Operating Manual / EU - Declaration of Conformity:
Mounting prescriptions
Ex Protection:

The fibre optics series SK-M18-xxxx-1-T-yy-FG-2GD are only applicable in the Ex zones 1, 2, 21 and 22. The fibre optics must only be operated with the ATEX certificated sensor type PSD-LTD-OP with maximum optical output power of 15mW. 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.

Function

The fibre optics series SK-M18-xxxx-1-T-yy-FG-2GD are designed for the rotation speed detection in hazardous locations and for high ambient temperatures.

Mounting prescriptions:

The fibre optics must not be buckled or laid with a small radius. Buckled or bad laid fibre optics results to a decrease of performance and damaged protection sheath or core. Avoid performance decreasing and failures caused by wear, by a functional mounting of the fibre optics. The fibre optics must be placed non-spinning and without tensile load.

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.

General Notes, disposal

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. EN 60079-14, ATEX 118a, single directive 1999/92/EC.

Standards met:

- EN 13463-1:2009, EN 60079-28:2007, EN 60529:2014
- ATEX directive: 2014/34/EU
- Machine directive: 2006/42/EC
- RoHS directive: 2011/65/EU

EU-Declaration of Conformity:

EC-Type Certification No. BVS 10 ATEX E130 X.

ATEX certification of quality type production of Ex devices at the ATEX directive 2014/34/EU, CE 0158. Certification No: BVS 15 ATEX ZQS / E118.

The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001:2008 with the ATEX module "Production", declares:

Hans Bracher, Matrix Elektronik AG



SK-M18-xxxx-1-T-yy-FG-2GD_e8/2016-12-20/HB

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