




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



II 2 GD IIB T135°C (T4)

- Silicone rubber protection sheath
- For rotation speed detection together with the sensor type PSD-LTD-GD
- Applicable in Ex zones 1,2, 21, 22 up to +120°C ambient temperature

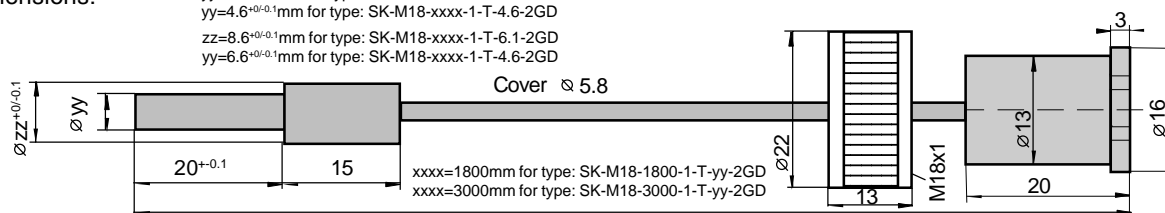
Technical Data	Type	SK-M18-xxxx-1-T-yy-2GD
		(xxxx=Length in mm) / yy=Probe diameter in mm)
Standard length		1800mm, 3000mm
Type of Ex protection		Protection by constructional safety, at EN 13463-5:2002
Applicable in Ex zones		Zones 1,2 and 21, 22
ATEX designation		II 2 GD IIB T135°C (T4)
Requirement on connected sensors		Type PSD-LTD-GD (With Limited optical power)
Maximum optical input power		<=3.9mW
Maximum potential radiant intensity		<= 5mW/mm ²
Active fibre optic diameter		1 mm
Active cross-sectional area		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 TA		0°C < TA < +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 Device type: SK-...-2GD TA: 0°C < TA < +120°C, Date of construction: Numeral 4 to 7 of the serial number	 Manufacturer with address II 2GD IIB T135°C (T4)

Dimensions:

 yy=6.1^{+0/-0.1}mm for type: SK-M18-xxxx-1-T-6.1-2GD

 yy=4.6^{+0/-0.1}mm for type: SK-M18-xxxx-1-T-4.6-2GD

 zz=8.6^{+0/-0.1}mm for type: SK-M18-xxxx-1-T-6.1-2GD

 yy=6.6^{+0/-0.1}mm for type: SK-M18-xxxx-1-T-4.6-2GD


Operating Manual / EC - Declaration of Conformity:

Mounting prescriptions

Ex Protection:

The fibre optics series SK-M18-xxxx-1-T-yy-2GD are only applicable in the Ex zones 1, 2, 21 and 22. The fibre optics must be operated with ATEX certificated sensor type PSD-LTD-GD (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.

Function

The fibre optics series SK-M18-xxxx-1-T-yy-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

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.

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 13463-5:2002, EN 1197-1:1997; IEC 60079-28 Ed.1.0 CDV; EN 60529:2000
- Ex-Protection: 94/9/EG (ATEX 100a)
- Machine directive: 98/37/EG
- Tech. File Ref.: AN_EXLWL
- RoHS, 2002/95/EG

Declaration of Conformity EC type:

Declaration of conformity by manufacturer.

Tech File No: AN_EXLWL

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