Tippkemper®

ISO 9001:2015 / ATEX MATRIX elektronik ag

Optical fibre optics, type SK-M18-xxxx-1-T-yy-FG-2GD-S55

CE 1258

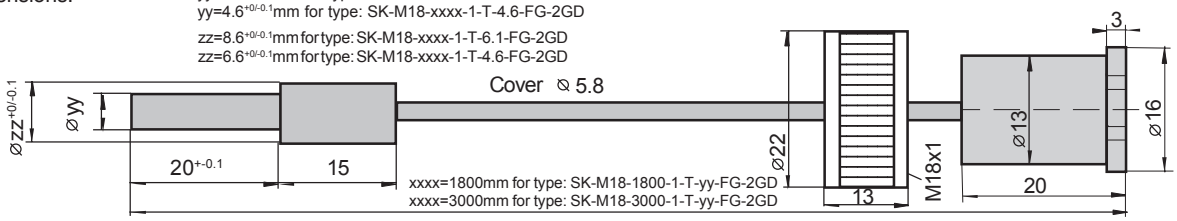
Ex op is IIC T4 Gb
Ex op is IIIB T135°C Db

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

Technical Data / Type	SK-M18-xxxx-1-T-yy-FG-2GD-S55
	xxxxx=Length in mm / yy=Probe diameter in mm / FG=fibres mixed
Standard length	1800mm, 3000mm
Permissible variation of length	+-50mm
Ex Protection, Gas	II 2G IIB T4 Gb
Ex Protection, Dust	II 2D IIIB T135°C Db
For using in Ex zones	Zones 1, 2, 21, 22
Requirement at connected sensors	Ex op is Gb/Db
Applicable with sensor type	Type PSD-LTD-GD
Maximum optical input power	<=15mW
Maximum potential radiant intensity	<= 5mW/mm²
Active fibre optic diameter	1mm
Active cross-sectional area	1.57mm² / emitter: 0.78mm²
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 up to +120°C
Enclosure rating at EN 60529	IP 68
Construction	Glass fibre core, protected by silicone rubber, special steel V2A reinforced sheating
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 1258 Manufacturer with address T_{amb}: 0°C < T_{amb} < +120°C Device type: SK-...-2GD-S55 Ex Ex op is IIC T4 Gb, Ex op is IIIB T135°C Db EC-type certification No. BVS 10 ATEX E130 X Date of production: Numerals 5 to 8 of the serial number (Year/Calendar week)

Dimensions:

yy=6.1$^{+0/-0.1}$mm for type: SK-M18-xxxx-1-T-6.1-FG-2GD
yy=4.6$^{+0/-0.1}$mm for type: SK-M18-xxxx-1-T-4.6-FG-2GD
zz=8.6$^{+0/-0.1}$mm for type: SK-M18-xxxx-1-T-6.1-FG-2GD
zz=6.6$^{+0/-0.1}$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-S55 are only for using in in the Ex zones 1, 2, 21, 22. The maximum rated optical input power must not be exceeded. The local equipotential bonding have to be done by grounding the fixed sensor. It is necessary to take into consideration the valid international and national rules and regulations (EN 60079-14). Other then 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-S55 are designed for the ration 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 sheat 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. 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, single directive 1999/92/EC.

Standards met:

EN 60079-0:2012, EN 60079-28:2007, EN 13463-1:2009, EN 60529:2014

ATEX directive: 2014/34/EU

Machine directive: 2006/42/EC,

RoHS directive: 2011/65/EU

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.

EU-Declaration of Conformity

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

ATEX certification of quality type production of Ex devices in accordance to the ATEX directive 2014/34/EU, CE 1258, Eurofins. Certification No: SEV 21 ATEX 4580, QAR No. CH/SEV/QAR21.0009/00. The conformity of the devices with the EC standards and directives and the EC-type examination certificate and the observation of the Quality Safety System ISO 9001:2015 with the ATEX module "Production", declares:

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