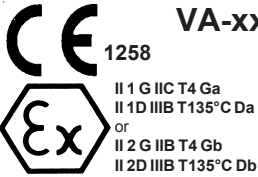


Glass Fibre Optics

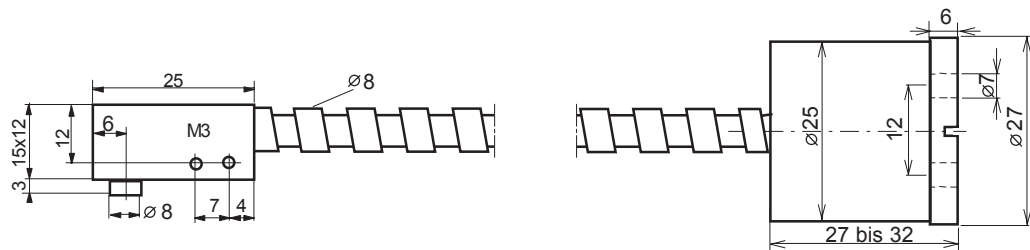
VA-xxxx-2.5-T-90°-1GD / VA-xxxx-2.5-T-90°-2GD / VA-xxxx-2.5-T-90°



- Special steel protection sheath, for reflective measurement method
- VA-.-2.5-T-90°-1GD Applicable in Ex Zones 0, 1, 2, 20, 21, 22
- VA-.-2.5-T-90°-2GD Applicable in Ex Zones 1, 2, 21, 22
- VA-.-2.5-T-90°: Applicable in Non-Hazardous Locations up to TA=+200°C

Technical data	Type	VA-xxxx-2.5-T-90°-1GD	VA-xxxx-2.5-T-90°-2GD	VA-xxxx-2.5-T-90°
Standard length and designation (Overall length)		VA-xxxx-2.5-T-90°(-GD) xxxx=Length in mm, 500, 1000, 1500, 2000		
Ex Protection, Gas		II 1G IIC T4 Ga	II 2G IIB T4 Gb	none
Ex Protection, Dust		II 1D IIIB T135°C Da	II 2D IIIB T135°C Db	none
Applicable in Ex Zones		0, 1, 2, 20, 21, 22	1, 2, 21, 22	--
Requirement at connected sensors		Ex op is Ga/Da	Ex op is Gb/Db	none
Maximum optical input power		<=15mW	<=35mW	Not limited
Maximum potential radiant intensity		<=5mW/mm ²	<=5mW/mm ²	Not limited
Active fibre optic diameter		2.5mm		
Active cross-sectional area		4.9mm ²		
Transmission rate, average		50-70%, at 880nm		
Optical aperture		appr. 65°, at 880nm		
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} < +200°C
Enclosure rating at EN 60529		IP68		
Material, adaption probe tip		Special steel, 1.4305		
Material, probe tip		Special steel, 1.4305		
Material, protection sheath		Special steel, 1.4301		
Accessories, included		2 x Shrink-down plastic tubing	1x Shrink-down plastic tubing	--
Options		-VA-1500-2.5-T-90°-2GD-S209: 0°C < T _{amb} < +85°C, Ex protection: II 2G IIB T5 Gb, II 2D IIIB T100°C Db		
ATEX realted designation of the fibre optics		CE 1258 TA: 0°C < T _{amb} < +120°C Manufacturer with address Type marking: VA-.-1GD II 1 G IIC T4 Ga, II 1D IIIB T135°C Da Type marking: VA-.-2GD II 2 G IIB T4 Gb, II 2D IIIB T135°C Db EC-Certification No: BVS 10 ATEX E 130 X. DEKRA Production date: Numerals 5 to 8 of the serial number (Year/Week)		

Dimensions:



Operating Manual / EC - Declaration of Conformity:

Ex mounting prescriptions
Types VA-....-1GD: Applicable in Ex zones 0, 1, 2, 20, 21, 22.
Types VA-....-2GD: Only applicable in Ex zones 1, 2, 21, 22.
General regulations for all types:
 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. With the additional shrink-down plastic tubings (only types VA..-1GD) a required change over can be realized.

Function
 The fibre optics series VA.. are designed for the construction of reflective measurement method arrangements 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. 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 13463-1:2009-07, EN 60079-28:2007
- Ex-Protection: 94/9/EC
- Machine directive: 2006/42/EC
- RoHS: 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.

EC-Declaration of Conformity:
 VA-.-GD: ATEX EC type certification No: BVS 10 ATEX E 130 X. DEKRA.
 ATEX certification of quality type production of Ex devices at the directive 2014/34/EU, CE 1258. Certification No: SEV 21 ATEX 4580. The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001:2015 with the ATEX module "Production", declares:

Pablo Ledergerber, Matrix Elektronik AG

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MAT-VA-xxxx-2.5-T-90-1GD-2GD_e7/2024-02-19/IMP