

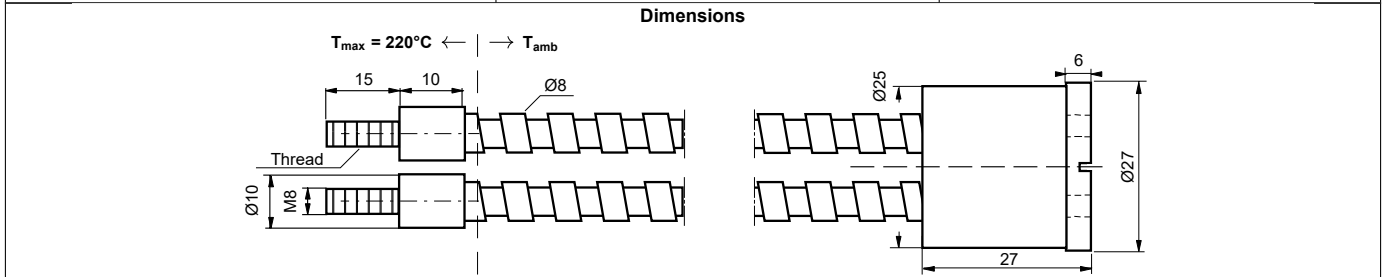
VAM-**-05-L-GM-OP3**
Fibre optics



- Fibre optics with stainless steel protection sheath for light barrier measurement arrangements.

Technical Data	VAM-****-05-L-GM-OP3
Gas Ex protection designation	II 1G Ex op is IIC T2 Ga
Dust Ex protection designation	II 1D Ex op is IIC T300°C Da
For use in Ex Zones	0 and 20
Permitted sensors	Only for operating with ATEX/IECEx certificated sensors from Matrix Elektronik AG
Maximum optical input power	<=15mW
Maximum optical input intensity	<=5mW/mm ²
Total length	****=Length in mm, 200, 500, 1000, 1500, 2000 (Overall length)
Active fibre optic diameter	4.7mm
Active cross-sectional area	17.34mm ²
Single fiber diameter	50um
Average transmission	50-70% at 880nm
Optical acceptance angle	approx. 65° at 880nm
Minimum bending radius	50mm (Single bend)
Materials	Adapter & sensing heads: Stainless steel, V2A Protective sleeve: Stainless steel, V2A
Enclosure rating	IP68
Ambient working temperature range, T _{amb}	0°C up to +120°C

Accessories	Included	Optional
	<ul style="list-style-type: none"> • 4x nuts and serrated lock washers M8 • 2x Shrink-down plastic tubing 	



EX related markings	Manufacturing date: Digits 5 to 8 of the serial number(Year / CW)
CE 1258 Gas: II 1G Ex op is IIC T2 Ga ATEX: IECEx: Tamb: 0°C up to +120°C (X designation of the certification number: Fibre optics must only be applied with sensors with certificated limited optical power).	Dust: II 1D Ex op is IIC T300°C Da BVS 10 ATEX E 130 X IECEx BVS 14.0108X Manufacturer with address

Operating Manual / EU-declaration of conformity	
<p>Ex installation prescriptions</p> <p>It is necessary to take into consideration the valid international and national rules and regulations (IEC 60079-14). The optical fibre must only be operated with ATEX/IECEx homologated sensors from Matrix Elektronik AG. The maximum rated optical input power must not be exceeded. The local equipotential bonding have to be done by grounding the fixed sensor. Other than original manufacturer, additional optical lenses are not allowed in hazardous locations. The fibre optics have to be installed in a manner that avoids 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. The product VAM-****-05-L-GM-OP3 is applicable in Ex zones 0 and 20.</p> <p>Function</p> <p>The fibre optics series VAM-****-05-L-GM-OP3 are designed for the construction of light barrier measurement method arrangements in hazardous locations and for high ambient temperatures. The fibre optics must only be operated with certificated Matrix sensors, with limited optical radiation power and 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.</p> <p>General safety</p> <p>When installing and operating the product, it is necessary to take into consideration all relevant international and other national regulations, especially those regarding explosion protection.</p> <p>Maintenance</p> <p>No special maintenance is required. Protect the product and any optical ports (if applicable) from pollution. Clean with non-aggressive solvents only. Strong solvents may damage certain fibre optics. The equipment must only be repaired or serviced by the manufacturer.</p> <p>General notes and disposal</p> <p>We reserve the right to modify our products. Our products are designed in such a way, that it has the least possible adverse effect on the environment. It neither emits or contains any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.</p>	<p>EU-Declaration of Conformity</p> <p>The product meets the requirements of the following standards and directives: EN IEC 60079-0:2018, IEC 60079-28:2015, IEC 60079-31:2013, ATEX directive 2014/34/EU, Machine directive 2006/42/EC, RoHS directive 2011/65/EU</p> <p>ATEX/IECEx-Designation: Gas: II 1G Ex op is IIC T2 Ga Dust: II 1D Ex op is IIC T300°C Da ATEX EU-type examination certificate No.: BVS 10 ATEX E 130 X IECEx CoC No.: IECEx BVS 14.0108X Ex CB IECEx: DEKRA Testing and Certification GmbH, Carl-Beyling-Haus, Dinen-dahlstrasse 9, D-44809 Bochum.</p> <p>ATEX certification of quality management system, type production of Ex devices, in accordance to the directive 2014/34/EU: Certification No.: SEV 21 ATEX 4580, QAR No.: CH/SEV/QAR21.0009/01, CB: Eurofins Electric & Electronic Product Testing AG, Luppenstrasse 3, CH-8320 Fehraltorf CE 1258 Ident. Number: 1258</p> <p>Pablo Ledergerber, Matrix Elektronik AG, is authorized to generation of documentation. The conformity of the devices with all used standards, directives and EC-type examination certificates and the observation of the Quality Management System ISO 9001:2015, declares:</p> <p style="text-align: right;">Ehrendingen, 4.3.2024</p> <p style="text-align: right;">Pablo Ledergerber, Matrix Elektronik AG</p>

VAM-xxxx-05-L-GM-OP3_e4/2024-03-04/MP

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