ISO 9001:2015

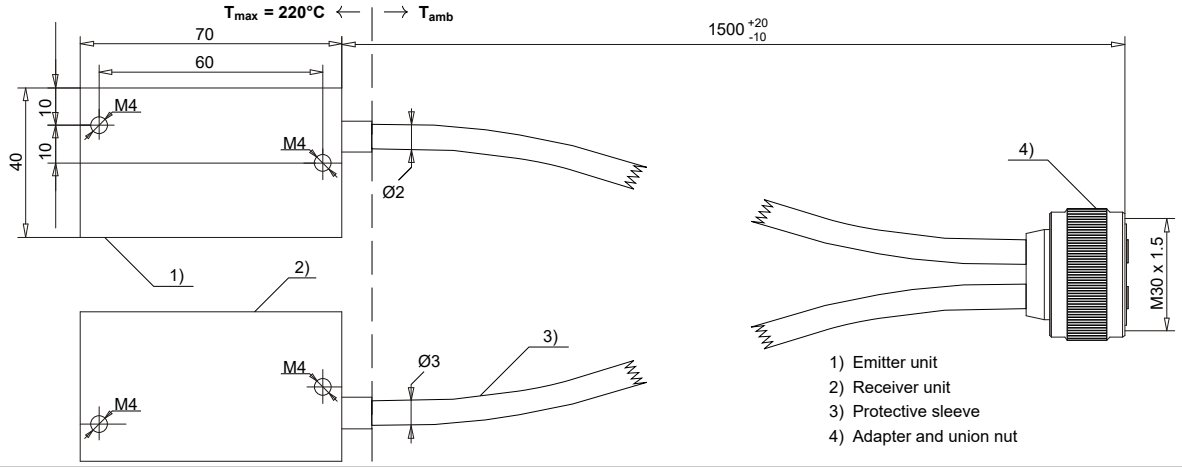
QWV-1500-23-L-50-OP3-S093
Cross-section converter fibre optics

CE 1258

- Applicable for width measurement, detection of small objects and other applications

Technical Data	QWV-1500-23-L-50-OP3-S093
Gas Ex protection designation	II 1G op is IIC T2 Ga
Dust Ex protection designation	II 1D op is IIIC 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
Detection width	50mm
Maximum optical input power	<= 35mW
Maximum optical input intensity	<= 5mW/mm^2
Total length	1500mm, other dimensions on request
Active fibre optic diameter	Emitter: 2mm / Receiver: 3mm
Active cross-sectional area	Emitter: 3.14mm^2 / Receiver: 7.07mm^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: Flexible stainless steel, V2A
Enclosure rating	IP68
Ambient working temperature range, T_{amb}	0°C up to +120°C

Dimensions



1) Emitter unit
2) Receiver unit
3) Protective sleeve
4) Adapter and union nut

EX related markings

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

Operating Manual / EU-declaration of conformity

Ex installation prescriptions
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 then 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 QWV-1500-23-L-50-OP3-S093 is applicable in Ex zones 0 and 20.

Function
The optical fibre type QWV together with sensors of type IRD-002-A**-OP-S093, gives the possibility to realize precision line scanning or width measurement of different objects.

General safety
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.

Maintenance
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.

General notes and 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. It neither emit or contain 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.

EU-Declaration of Conformity
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
ATEX/IECEx-Designation:
Gas: II 1G op is IIC T2 Ga
Dust: II 1D op is IIIC 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, Dinendahlstrasse 9, D-44809 Bochum.
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/QAR21.0009/00, CB: Eurofins Electric & Electronic Product Testing AG, Luppmenstrasse 3, CH-8320 Fehraltorf. CE 1258 Ident. Number: 1258
Pablo Ledergerber, Matrix Elektronik AG, is authorized to generation of documentation.
The conformity of the devices with all used standards and directives and the EC-type examination certificate and the observation of the Quality Management System ISO 9001:2015, declares:

Ehrendingen, 17.2.2022

Pablo Ledergerber, Matrix Elektronik AG

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