



Data Optical Cabinet DOR-01

Certificate: ATEX



DOR-01

Application:

The data optical cabinet DOR-01 is used for converting SHDSL line data signals of RS485IS series line to the Ethernet signal for distance transmission by an optical cable. The data optical cabinet is intended for the use in the underground and surface mines with a higher methane explosion hazard.

Description:

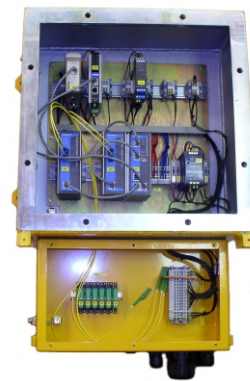
The non-explosive cabinet comprises a secure enclosure in the Ex d design and a terminal block in the Ex e or Ex op is design. In the instrument part there is electronics with power supply. The electronics consists of modems, an Ethernet switch and Ethernet signal converters to an optical signal. The instrument part is equipped with a detachable lid.

The terminal block part is divided into two parts. In the first one with the Ex op is design there is a panel with optical adapters for connecting an optical cable. In the second part in the Ex e, e(ia) design there is the terminal block for connecting data signals and power supply.

Signals from the process supplied via a metallic cable by the SHDSL line or the RS485IS series line are converted to the Ethernet 10/100BaseT signal. This signal is transferred via the metallic cable either to the converter which converts it to the 100Base FX optical Ethernet signal, or to the Ethernet switch. It is possible to lead up to seven SHDSL data lines converted to the 10/100Base T Ethernet signal to this Ethernet switch. The output is a 100Base FX optical Ethernet signal for distance data transmission on the optical fibre. Two optical channels are available. The number of SHDSL and RS485 lines can be combined as needed.

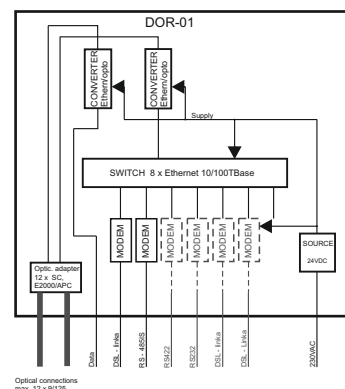
Technical Specifications:

Design	I M2 Ex d e op is I Mb I M2(M1) Ex d e(ia) Ma op is I Mb
Supply voltage	2PE 230VAC 50Hz IT
Power input	38 VA
Fuse nominal current	F1,F2,F3,F4 2A
Supply bushing	M20x1.5 cable ϕ 6-13mm
Signal bushing	M50x1.5 cable ϕ 23-35mm
Connected conductor cross-section	0.08 to 4mm ²
Optical connection	12x fibre 9/125 SM connector SC(E2000/APC) 100BaseFX 1310nm
Ambient temperature	0 to +40°C
Relative humidity	95% non-condensing
Protection	IP54
Dimensions, incl. bushings	470 x 749 x 244mm
Weight	72kg



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Instrument and terminal block area



Block diagram of the data optical cabinet

The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.