



- For operation of up to four inherently safe fiber optic cables "op is" according to IEC 60079-28
- For 100 Mbit/s Industrial Ethernet
- Transmission range up to 3.1 mi / 5 km (multi-mode) or up to 18.6 mi / 30 km (single-mode)
- Extended temperature range -22 ... +158 °F / -30 ...+70 °C
- Redundant supply
- Installation in Cl. I, Div. 2, Zone 2 or in the safe area

MY R. STAHL 9721B



The 9721 unmanaged switch is designed for linking electrical Ethernet networks (TX) and fiber optic (FX) based networks. The fiber optics are used for operation in hazardous areas of Cl. I, II, III, Div. 1 and Zone 0, 1, 2, 20, 21 and 22 with the type of protection "Ex op is" (IEC/EN 60079-28). Therefore, conventional fiber optic cables can also be used in hazardous areas and may be connected and disconnected during operation (hot swap). The unmanaged switch has 2 TX ports and 4 FX op is ports. Redundant supply can be provided. Compatible with: Remote I/O IS1+, HMI Series ET/MT-xx6-A-FX and ET/MT-4x8, as well as for IP network cameras.

Technical Data

Explosion Protection

| | |
|---------------------------------|--|
| Application range (Zones) | 2 |
| Ex interface zone | 0 1 2 20 21 22 |
| IECEX gas certificate | IECEX TUR 16.0002 X |
| IECEX gas explosion protection | Ex ec [op is T6 Ga] IIC T4 Gc |
| IECEX dust certificate | IECEX TUR 16.0002 X |
| IECEX dust explosion protection | [Ex op is Da] IIIC |
| ATEX gas certificate | TÜV 16 ATEX 7742 X |
| ATEX gas explosion protection | ⊕ II 3 (1) G Ex ec [op is T6 Ga] IIC T4 Gc |
| ATEX dust certificate | TÜV 16 ATEX 7742 X |
| ATEX dust explosion protection | ⊕ II (1) D [Ex op is Da] IIIC |
| FMus certificate | FM17US0054X |
| cFM certificate | FM17CA0030X |
| Marking cFMus | Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex nA [op is] Group IIC T4 Gc Ta = -30 °C to +70 °C See Doc. 9721 6 031 001 1 |
| Certificates | ATEX (TUR), Canada (FM), China (NEPSI), IECEX (TUR), India (PESO), USA (FM) |
| Ship approval | ABS, BVIS, EU RO MR (DNV), KR, LR |
| Declaration of Conformity | ATEX (EUK), China (CCC) |
| Installation | Zone 2 |

Network and Wireless Solutions

Unmanaged switch FX op is / TX SC for Zone 2

Multi-mode

9721/13-42-14 Art. No. 243427



Safety Data

Max. FO radiant power ≤ 15 mW

Electrical Data

Transfer rate 10/100 Mbps
Auto-negotiation

Voltage range DC 12 to 30 V DC

Ethernet interface connection RJ 45 plug connector

Redundant supply Yes

Interface 1 4 port, 100BASE-FX MM SC

Interface 1 version EX OP IS

Transmission distance Up to 100 m (Cat5e or better)

Interface 2 2 Port, 100BASE-TX, RJ45

Interface 2 version standard

FO wavelength 1310 nm

FO fiber type Multi-mode

FO attenuation 1 dB / km

FO bandwidth 800 MHz * km

FO connection type SC plug connector

FO fiber cross-section 50/125 μm [min. OM2]

FO fibre cross-section Note Alternative 62.5/125 μm [OM1] max. 4 km

FO optical budget 12 dB

FO transmission distance 3.1 mi / 5 km [OM3, OM4]
2.8 mi / 4 km [OM1]

Operating mode Half duplex, Full duplex Auto-MDI(X)

Auxiliary Power

Nominal voltage V_{nom} 24 V DC

Power supply 4-pole screw terminal

Max. current consumption 500 mA

Max. power consumption 6.4 W

Polarity reversal protection Yes

Ambient Conditions

Ambient temperature $^{\circ}\text{C}$ -30 $^{\circ}\text{C}$... +70 $^{\circ}\text{C}$

Ambient temperature $^{\circ}\text{F}$ -22 $^{\circ}\text{F}$... +158 $^{\circ}\text{F}$

Storage temperature $^{\circ}\text{C}$ -40 $^{\circ}\text{C}$... +85 $^{\circ}\text{C}$

Storage temperature $^{\circ}\text{F}$ -40 $^{\circ}\text{F}$... +176 $^{\circ}\text{F}$

Max. relative humidity < 95% (no condensation)

Use at the height of < 2000 m

Mechanical Data

Degree of protection (IP) IP20

Pollutant class Corresponds to G3

Enclosure material Stainless steel, powder-coated

Connection cross section min. 0.08 mm^2

Connection cross-section max. 2.5 mm^2

Stripping length 7 mm

Weight 500 g

Weight 1.1 lb

Network and Wireless Solutions



Unmanaged switch FX op is / TX SC for Zone 2

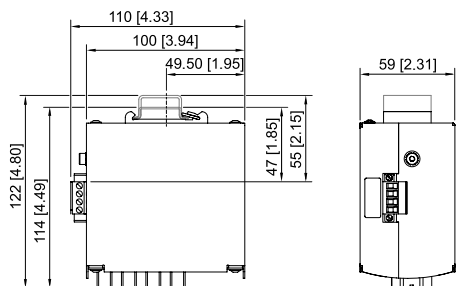
Multi-mode

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Mounting / Installation

| | |
|----------------------|-------------------|
| Mounting type | On 35 mm DIN rail |
| Tightening torque | 0.5 Nm |
| Mounting orientation | any |

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



Accessories

FO patch cable



Patch cable for connection of IS1+ Ethernet CPU 9441 with media converter 9721; plug LC / SC; length 3.8 ft / 3 m

Art. No.

220911

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.