



- For operation of up to four inherently safe "op is" fibre optic cables according to IEC 60079-28
- For 100 Mbit/s Industrial Ethernet
- Transmission range up to 5 km (multi-mode) or up to 30 km (single-mode)
- Extended temperature range from -30 to +70 °C
- Redundant power supply
- Installation in Zone 2 or in safe areas

A5

MY R. STAHL 9721B



The 9721 unmanaged switch is used to link electrical Ethernet networks (TX) and networks based on fibre optic cables (FX). The fibre optic cables are designed for operation in hazardous areas of Zones 0, 1, 2, 20, 21 and 22 with the "Ex op is" type of protection (IEC/EN 60079-28). Therefore, conventional fibre optic cables can also be used in hazardous areas and may be connected and disconnected during operation (i.e. hot swap).

The unmanaged switch has 2 TX ports and 4 FX op is ports. A redundant power supply can be provided. Compatible with: R. STAHL IS1+ Remote I/O, HMI and IP cameras

	IECEx / ATEX							NEC® 500 CE Code Appendix J							CE Code Section 18 NEC® 505					
Zone	0	1	2	20	21	22	Division	1	2	1	2	1	2	Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•	Ex interface	•	•	•	•	•	•	Ex interface	•	•	•	•	•	•
Installation in			•				Installation in		•					Installation in			•			

Selection Table						
Unmanaged switch FX op is/TX SC for Zone 2						
Product variant	FO fibre type	FO transmission distance	Interface 1	Interface 2	Product Type	Art. No. Weight
Multi mode	5 km	4 port, 100BASE-FX MM SC	2 Port, 100BASE-TX, RJ45	9721/13-42-14	243427	500 g
Multi mode/single mode	30 km (SM) 5 km (MM)	4 port, 100BASE-FX SM/ MM SC	2 Port, 100BASE-TX, RJ45	9721/13-42-74	243429	500 g
Single mode	30 km	4 port, 100BASE-FX SM SC	2 Port, 100BASE-TX, RJ45	9721/13-42-54	243428	500 g

The single-mode version is not suitable for direct connection to IS1+ Remote I/O.

Technical Data			
Variant	9721/13-42-14	9721/13-42-54	9721/13-42-74
Explosion Protection			
IECEx gas explosion protection	Ex ec [op is T6 Ga] IIC T4 Gc	Ex ec [op is T6 Ga] IIC T4 Gc	Ex ec [op is T6 Ga] IIC T4 Gc
IECEx dust explosion protection	[Ex op is Da] IIIC	[Ex op is Da] IIIC	[Ex op is Da] IIIC
ATEX gas explosion protection	⊕ II 3 (1) G Ex ec [op is T6 Ga] IIC T4 Gc	⊕ II 3 (1) G Ex ec [op is T6 Ga] IIC T4 Gc	⊕ II 3 (1) G Ex ec [op is T6 Ga] IIC T4 Gc
ATEX dust explosion protection	⊕ II (1) D [Ex op is Da] IIIC	⊕ II (1) D [Ex op is Da] IIIC	⊕ II (1) D [Ex op is Da] IIIC
Certificates	ATEX (TUR), Canada (FM), China (NEPSI), IECEx (TUR), India (PESO), USA (FM)	ATEX (TUR), Canada (FM), China (NEPSI), IECEx (TUR), India (PESO), USA (FM)	ATEX (TUR), Canada (FM), China (NEPSI), IECEx (TUR), India (PESO), USA (FM)
Declaration of conformity	ATEX (EUK), China (CCC)	ATEX (EUK), China (CCC)	ATEX (EUK), China (CCC)

Technical Data

Variant	9721/13-42-14	9721/13-42-54	9721/13-42-74
Electrical Data			
Ethernet interface connection	RJ 45 plug connector	RJ 45 plug connector	RJ 45 plug connector
FO wavelength	1310 nm	1310 nm	1310 nm
FO attenuation	1 dB / km	0.3 dB / km	0,3 dB/km (SM) 1 dB/km (MM)
FO bandwidth	800 MHz * km	3.5 ps / nm * km	3.5 ps/nm *km (SM) 800 Mhz * km (MM)
FO connection type	SC plug connector	SC plug connector	SC plug connector
FO fibre cross section	50/125 µm [min. OM2]	9/125 µm [OS1, OS2]	9/125 µm [OS1, OS2] (SM) 50/125 µm [min. OM2] (MM)
Transfer rate	10/100 Mbit/s Auto-negotiation	10/100 Mbit/s Auto-negotiation	10/100 Mbit/s Auto-negotiation
FO optical budget	12 dB	16 dB	16 dB
Operating mode	Half duplex, Full duplex Auto-MDI(X)	Half duplex, Full duplex Auto-MDI(X)	Half duplex, Full duplex Auto-MDI(X)
Auxiliary Power			
Nominal voltage	24 V DC	24 V DC	24 V DC
Max. current consumption	500 mA	500 mA	500 mA
Max. power consumption	6.4 W	6.4 W	6.4 W
Polarity reversal protection	Yes	Yes	Yes
Ambient Conditions			
Ambient temperature	-30 °C ... +70 °C	-30 °C ... +70 °C	-30 °C ... +70 °C
Mechanical Data			
Degree of protection (IP)	IP20	IP20	IP20
Enclosure material	Stainless steel, powder-coated	Stainless steel, powder-coated	Stainless steel, powder-coated
Mounting / Installation			
Mounting type	On 35 mm DIN rail	On 35 mm DIN rail	On 35 mm DIN rail

Accessories

Figure	Description	Art. No.	Weight
FO patch cable			
	Patch cable for connecting 9441 IS1+ Ethernet CPU to 9721 media converter; LC/SC plug; length 3 m	220911	-

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

