



- For 100 Mbps Ethernet with inherently safe "op is" fibre optic cables in Zone 0, 1 or 2
- Transmission range up to 5 km (multi-mode) or up to 30 km (single-mode)
- Extended temperature range from -30 to +75 °C
- Easy commissioning, no configuration required
- Installation in Zone 2 or in safe areas

A5

MY R. STAHL 9721A



This media converter converts electrical Ethernet signals (TX) into optical Ethernet signals (FX). The optical Ethernet signals are used for operation in hazardous areas of Zones 0, 1 and 2 with the "Ex op is" type of protection. This means that conventional fibre optic cables can also be used in hazardous areas and may be connected and disconnected during operation (i.e. hot swap).

The media converter (multi-mode) is suitable for operating the IS1+ Remote I/O system in Zone 1.

	IECEX / ATEX					
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			


	NEC® 500 CE Code Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				

	CE Code Section 18					
	NEC® 505			NEC® 506		
	Class I					
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			

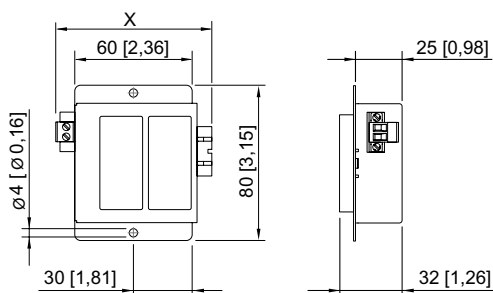
Selection Table						
Product variant	FX op is/TX SC media converter for Zone 2					
FO fibre type	FO transmission distance	Interface 1	Interface 2	Product Type	Art. No.	Weight
Multi mode	5 km	1 port, 100BASE-FX MM SC	1 Port, 100BASE-TX, RJ45	9721/13-11-14	220381	240 g
Single mode	30 km	1 port, 100BASE-FX SM SC	1 Port, 100BASE-TX, RJ45	9721/13-11-54	220382	240 g

Technical Data		
Variant	9721/13-11-14	9721/13-11-54
Explosion Protection		
IECEX gas explosion protection	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
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
ATEX dust explosion protection	⊕ 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)
Ship approval	ABS, BVIS, EU RO MR (DNV), KR, LR	ABS, BVIS, EU RO MR (DNV), KR, LR
Declaration of Conformity	ATEX (EUK), China (CCC)	ATEX (EUK), China (CCC)
Electrical Data		
Ethernet interface connection	RJ 45 plug connector	RJ 45 plug connector
FO wavelength	1310 nm	1310 nm
FO attenuation	1 dB / km	0.3 dB / km
FO bandwidth	800 MHz * km	3.5 ps / nm * km
FO connection type	SC plug connector	SC plug connector

Technical Data		
Variant	9721/13-11-14	9721/13-11-54
Electrical Data		
Transfer rate	10/100 Mbps Auto-negotiation	10/100 Mbps Auto-negotiation
FO fibre cross section	50/125 µm [min. OM2]	9/125 µm [OS1, OS2]
FO optical budget	12 dB	16 dB
Operating mode	Half duplex, Full duplex Auto-MDI(X)	Half duplex, Full duplex Auto-MDI(X)
Auxiliary Power		
Max. power consumption	2.5 W	2.5 W
Nominal voltage	24 V DC	24 V DC
Polarity reversal protection	Yes	Yes
Max. current consumption	200 mA	200 mA
Ambient Conditions		
Ambient temperature	-30 °C ... +75 °C	-30 °C ... +75 °C
Mechanical Data		
Degree of protection (IP)	IP20	IP20
Enclosure material	Stainless steel, powder-coated	Stainless steel, powder-coated

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



	Dimension X
With fibre optic sockets and an auxiliary power connection	81 mm [3.19]
As above with installed FO connector	116 mm [4.57]