

„duplex” - WDM one fiber - two-way transmission | „duplex” - two fibers two-way transmission

Fiber optic link diagnostics (connection, attenuation, transmitter status)

Intrinsically safe 100Base-FX interface
fiber optic

Intrinsically safe media converter KMi-1

Intrinsically safe 10/100Base-TX interface
2 pairs of UTP

Intrinsically safe 10/100Base-TX interface
2 pairs of UTP

Used to build in controllers of:

- conveyors control systems
- longwall communication and safety systems
- ATUT-RFID materials transportation vehicles identification and localization systems
- underground cooling and air conditioning systems
- the main drainage pumping station control systems
- high pressure pumps control systems
- fire protection, compressed air, methane and high pressure emulsion pipelines monitoring of operation parameters and control systems



Device description:

KMi-1 media converter is a device used to convert signals between intrinsically safe 10/100Base-TX cable networks and 100Base-FX fiber optic networks. The device is equipped with one intrinsically safe Ethernet 10/100Base-TX port intended to connect cable lines with UTP cable ended with RJ-45 connector and second fiber optic transmission port with SC optical connector. KMi-1 converter is using for transmission two fibers (TX, RX) or single fiber using Wavelength Division Multiplexing technology. Thanks to this solution only one fiber is needed to create single transmission channel (broadcasting and receiving are on different wave lengths of one fiber). KMi-1 converters are working only in single-mode networks.

Technical characteristics:

ATEX certificate number	KDB 13 ATEX 0086X		
Supply parameters:			
Supply voltage U_N	6,5 ÷ 15 VDC		
Supply current I_N for voltage:	6,5 VDC	320 mA	
	15 VDC	130 mA	
Fiber optic parameters:			
Transmission speed	10/100Base-TX port	10/100 Mbps	
	100Base-FX port	100 Mbps	
100Base-FX transmission	KMi-1/A/*/* and KMi-1/C/*/*	WDM two-way over one fiber	
	KMi-1/B/*/*	two-way over two fibers	
Broadcasting wave length (TX)	KMi-1/A/*/*	KMi-1/B/*/*	KMi-1/C/*/*
	1310 nm	1550 nm	1310 nm
Receiving wave length (RX)	1550 nm	1310 nm	1310 nm
Fiber optic type	9/125 μ m SM		
10/100Base-TX functions	MDI/MDI-X (cable auto identification straight/crossed)		
Maximum distance	60 km		
Normal working conditions:			
Device category	I M1		
Casing type	Ex ia op is I Ma		
Working temperature range	0°C ÷ 60°C		
Air humidity	max 95%		
Casing protection degree	IP20		
Type of work	continuous		
Dimensions (Width x Height x Depth)	166 x 95 x 45 mm		