

Data sheet:


Digital-I/O Extender Set 8*In / 8*Out Singlemode SC



Article no.: 17635

EUR 998.00

*Net price for commercial users

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Transmit contact signals over very long distances

The Digital-I/O Extender Set transmits up to 16 digital I/O signals over single-mode glass fiber cable. The set consists of two Digital-I/O <-> glass fiber optics and supports eight I/O channels in each direction.

Properties

Interfaces:


- **8 x digital output**
 - FET, short-circuit protected, 8..30V / 0.5A
- **8 x digital input**
 - Polarity reversal protected
- **1 x Single-Mode Glass Fiber Cable**
 - SC connector

Management and connectivity:

- **Noise-immune transmission of 16 I/O signals over a distance of up to 20km, e.g.:**
 - in extremely noisy industrial environments
 - in areas subject to lightning strikes
 - between two distant buildings
 - in the mountains
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- **Safety-optimized solution**
 - with no need for programmable components: No firmware risk
 - integrated monitoring of the fiber optic connection: Status output on each converter
 - configurable output response when glass-fiber cable is interrupted

Standards & more

- **Conforms to standards both in office and industrial environments:**
 - High noise resistance for industrial environments
 - Low noise emission for residential and business areas
- **5 year guarantee**

 Wish for something!
Your suggestions for improvement and additions

Worth knowing

Although digital I/O signals are essentially insensitive to external noise due to their low bandwidth and the large voltage swing, as serial data signals for example the application conditions do still in many cases require transmission procedures which are completely resistant to local noise effects.

Glass fiber optic cables used as the transmission medium meet these requirements in ideal fashion and also offer the advantage of galvanic isolation of up to virtually any value between the connected devices. In installations which are subjected to high risk of lightning strikes, for example in outdoor locations or between distant buildings, such a solution ensures that the connected components will survive even under adverse conditions.

The W&T Digital-I/O Extender Set 8x8 is fully implemented in hardware, so that there is no principle risk of malfunction caused by hidden firmware errors or by a system crash.

The functionality of the glass fiber optic connection is cyclically monitored and the status indicated by means of an LED and a switching output. Should the connection fail, the fallback state can be individually set for each digital output.

Technical data

Connections and displays:

I/O connection:	Plug-in screw terminal
Digital outputs:	8 x Digital Out 8V-30V, 500mA, short circuit protected, configurable response to failure of the optical connection
Digital inputs:	8 x Digital In, max. input voltage $\pm 30V$, protected against reverse connection within this range, Switching threshold $9V \pm 1V$, "On" current = 2.2mA, per IEC 61131-2, Type 3
Glass fiber connection:	SC connector
Supported signals:	16 digital signals (eight in each direction)
Signal propagation time:	Input to output: max. 20ms
Fiber-optic medium:	Duplex single-mode fiber optic 9/125 μ m
Fiber end face:	UPC (Ultra Physical Contact)
Transmitter type:	Class 1 Laser Product
Wavelength:	1310nm
Optical output power:	min. -12dBm, max. -8dBm
Receiver sensitivity:	max. -22dBm
Maximum input power:	max. -3dBm
Optical budget:	min. 10dB
Maximum distance:	min. 20km @0.35dB/km
Supply voltage:	8..30V DC
Current consumption:	typ. 30mA @ 12V DC
Supply connection:	Plug-in screw terminal, 5.08mm spacing Labeled "L+" and "M"
Displays:	8x LED inputs 8x LED outputs 1x LED Link 1x LED Power

Housing and other data:

Housing:	Plastic housing for top hat rail installation 105 x 45 x 75mm (L x W x H)
Enclosure rating:	IP20
Weight:	approx. 300g
Ambient temperature:	Storage: -40..+70°C, Operation: 0..+70°C
Permissible relative humidity:	5..90% relative humidity (non-condensing)
Life expectancy:	> 25 years at 25°C ambient temperature
Scope of delivery:	2 Converters Digital-I/O <> Single-Mode Glass Fiber If needed please order power supplies as separate accessories

Accessories

*Net unit price for commercial users

Power supplies

Plug-in power supply, 24V / 500mA DC with Euro plug	11021	21.00€	
Plug-in Power Supply, 24V / 750mA DC with Euro, US and UK plug	11026	38.00€	
Power supply for DIN rail, 24V / 630mA DC (merchandise, 2-year manufacturer's guarantee)	11080	33.00€	

Mechanical Accessories

Mounting bracket for wall mounting	58812	11.20€	
19" DIN rail	58813	21.00€	

* Our offering is intended only for commercial users. We will be happy to refer private end customers to trading partners through whom our products can be purchased.

[We are available to you in person:](#)

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