

Connection Technology

Optical fibre signal transmission RS422/HTL Optical fibre transmitter and receiver

eco plus
 Cost advantage compared to conventional wiring over 150 m length*



The solution for tough signal transmission.

The system is made up of an optical fibre transmitter and an optical fibre receiver. The optical fibre transmitter converts the electrical signals of a normal incremental encoder into a light signal for transmission by means of an optical fibre.

The receiving module converts the optical signal back into electrical signals. Up to 4 channels with inverted signals may be transmitted safely.

Innovative

- Signal transmission thanks to a simple glass fibre
- Safe signal transmission up to 1000 m
- Input frequency up to 400 kHz
- Input level 10 ... 30 V or RS422
- Inverted input signals
- Resists extremely strong electro-magnetical fields

Compact

- Can be installed even where space is tight
- Minimal installation depth, diameter 70 mm
- Compact cable outlet

Application areas

- Process control technology and automation technology
- Applications sensitive to interference
- High voltage plants
- Plants with long transmission distances
- Potential separation
- Explosive areas

Order code

Optical fibre transmitter / receiver

6.LWLX.X
a b

a
S = Optical fibre transmitter
E = Optical fibre receiver

b Output circuit / Power supply
 1 = RS422 / 10 ... 30 V DC
 2 = HTL, without inverted signals / 10 ... 30 V DC (only for optical fibre transmitter)
 4 = RS422 / 5 V DC
 5 = HTL / 10 ... 30 V DC, output

Scope of delivery:
 - Optical fibre module
 - Multilingual operating manual

Optical fibre transmitter versions can be combined with any version of the optical fibre receivers.

Accessories

Simplex Patch cable
ST-ST - Multimode



Connector:
 2 x ST/PC, Optical fibre:
 1 x 50/125

05.B09-B09-821-XXXX

XXXX = Length in m
 Standard lengths: 2 m, 5 m, 8 m, 10 m, 15 m, 20 m, ... (in 5 m steps)

ST Multimode coupling



Barrel: ceramic, slotted

05.LWLK.001

* Comparison of costs:
 Costs per meter standard copper cable compared to costs per meter optical fibre signal cable + costs of transmitter + costs of receiver

Connection Technology

Optical fibre signal transmission RS422/HTL Optical fibre transmitter and receiver

Technical data			
Supply voltage	10 ... 30 V or 5 V ±5%	Glass fibre	multimode fibre, 50/125 µm, 62,5/125 µm
Power consumption per module	< 2 W	Input signals sampling rate	10 MSamples/s
Operating voltage reverse connection protection	available	Optical fibre transmission distance	max. 1000 m
Encoder inputs optical fibre transmitter channels	A, \bar{A} , B, \bar{B} , 0, $\bar{0}$	Dimensions (W x L x H)	22,5 x 110,8 x 88,4 mm
Max. input frequency optical fibre transmitter and output frequency optical fibre receiver	400 kHz	Protection	IP40, terminals IP20
Input level optical fibre transmitter	10 ... 30 V or RS 422	Terminals	protected against contact 2,5 mm ²
Optical wavelength	820 nm	Temperature range	-10°C ... +60°C
Optical transmission rate	120 Mbit/s	Weight	approx. 95 g
Optical fibre synchronisation display	LED on the receiver	Standards	EN 55 011 Class B1 EN 61 000-6-2: 2006
Optical fibre connection	ST connector, 13 mm, ø 9 mm, on the bottom side of the housing		

Terminal assignment

Channel	\bar{A}	\bar{B}	$\bar{0}$ (\bar{C})	A	B	0 (C)	\bar{D}	+U _B	D	0 V, GND <small>linked internally</small>
Pin	1	2	3	4	5	6	7	8	10	9, 11, 12

Dimensions

