

FOXTROT – TCL2 bus optical interconnection module

Type	DI	DO	AI	AO	Comm
KB-0552					TCL2 MM optic fibre

Basic features

- The module is designated for TCL2 bus protocol conversion from metallic wires – RS-485 to the optical fibre and it is conform to the transfer speed 345 kbps.
- Using more converters on one TCL2 bus allows to create star topology which lines are created by optical fibres.

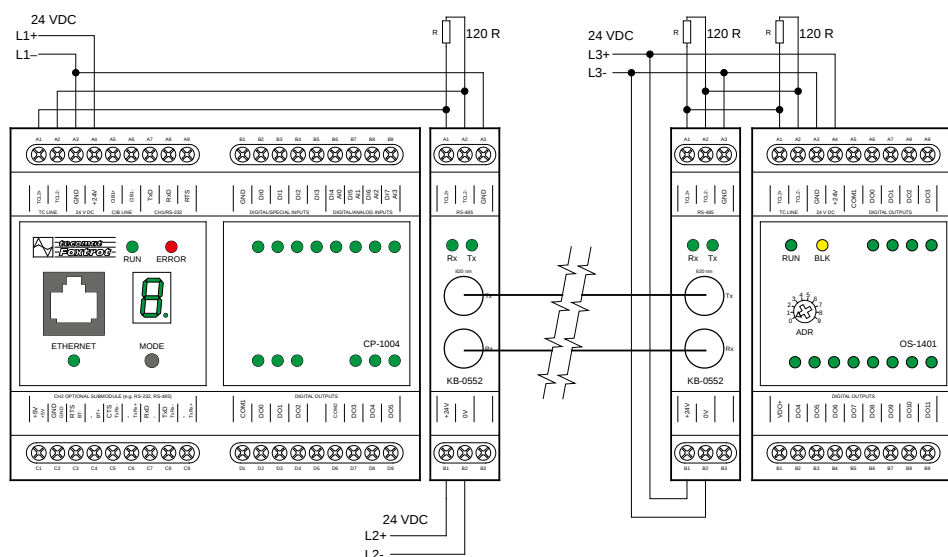
Connection

- The module is connected to the power supply and TCL2 bus by screw-type terminals.
- A pair of optical fibres MM (multimode) is connected by ST connectors. The length of the optical cable is up to 1750 m.

Use

- A pair of KB-0552 modules allows to connect FOXTROT systeM-bus by optical fibres with ST connectors.
- The module is designated for installations where it is necessary to use galvanically separated connection that eliminates electromagnetic disturbance influence, it means mainly for outside installations, industrial plants etc.

Connection example



Communication

System I/O bus	1 × TCL2 (RS-485, 345 kbps)
Fibre optic installation	Multimode, glass fibre, ST connector
Optical radiation wave length	820 nm
Ultimate operating range	15 dB, min. 8 dB
Transmitter optical output	–12 dBm, min. –15 dBm
Total optical output	0.355 mW
Optical power input „log.0”	–24.0 ÷ –10.0 dBm
Optical power input „log.0”	–25.4 ÷ –9.2 dBm
(25 °C)	
Optical power input „log.1”	Max. –40 dBm

Optical cables – other parameters

Operating temperature	–40 ÷ 80 °C
Temperature during installation	0 ÷ 70 °C
Cable attenuation per 1 km of the length	3.5 dBm
Delay given by propagation velocity	5 ns/m
Cable extrinsic diameter (2 fibres)	3 ÷ 6 mm

Power supply

Power supply voltage (SELV)	+24V DC
Allowed range	–15 % ÷ +25 % (20.4 ÷ 30 V DC)
Max. input power	1.2 W
Galvanic isolation	No

Dimensions and weight

Dimensions	90 × 18 × 65 mm
Weight	75 g

Operational conditions

Operating temperature	–20 ÷ +55 °C
Storage temperature	–30 ÷ +70 °C
Electric strength	according EN 60950
IP Degree of protection	IP 20
IEC EN 60529	
Overvoltage category	III
Degree of pollution	2
IEC EN 61131-2	
Working position	any
Installation	On DIN rail
Optic fibre connection	Duplex 2xST
Connections	Screw terminals
Conductors cross-section	max. 2.5 mm ²

Order number

TXN 105 52	KB-0552, TCL2 converter to multimode glass optic fibre
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