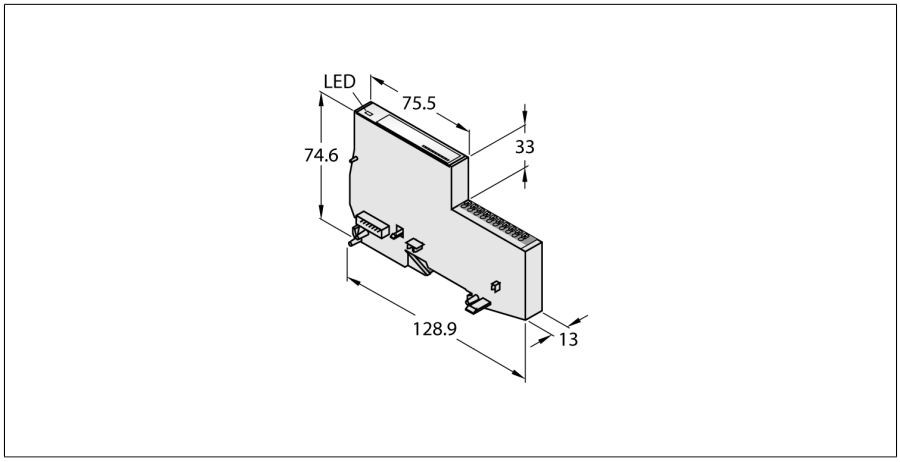
BL20 Economy Module
4 IO-Link Master Channels, 16 Bytes of I/O Data
4 Configurable Digital Channels, PNP, Channel Diagnostics, 0.5 A
BL20-E-4IOL



- Fieldbus-independent
- Electronics and connection technology in one housing
- Connectivity: Push-in terminals
- Protection class IP20
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- IO-Link master acc. to specification V1.1, 4-channel
- 4 universal digital channels, PNP, channel diagnostics, 0.5 A

Functional principle

Electronics and connection technology are integrated in the housing. A base module is not needed. Economy modules and modules with separate electronics and connection technology can be fitted into a station, provided the base modules feature tension spring connections.

The use of gateways makes economy modules completely independent from the higher level fieldbus.

Type	BL20-E-4IOL
ID	6827385

Number of channels	4/4
Rated voltage from the supply terminal	24 VDC
Nominal voltage V_o	24 VDC
Admissible range	18…30 VDC
Nominal current from field supply	≤ 80 mA
Nominal current from module bus	≤ 40 mA
Max. field supply current	10 A
Power dissipation, typical	≤ 2 W

Input type	PNP
Low-level signal voltage	< 5 V
High level signal voltage	> 11 V
Low level signal current	< 1.5 mA DI / <5 mA SIO
High level signal current	2.1 … 3.7 mA DI / 5 … 11 mA SIO
Electrical isolation	electronics to the field level
Output connectivity	Push-in

Output type	PNP
Output voltage	24 VDC
Output delay	3 ms
Load type	resistive, inductive, lamp load
Load resistance, resistive	> 48 Ω
Load resistance, inductive	< 1.2 H
Lamp load	< 3 W
Switching frequency, resistive	< 200 Hz
Switching frequency, inductive	< 2 Hz
Switching frequency, lamp load	< 20 Hz
Electrical isolation	electronics to the field level
Input connectivity	Push-in

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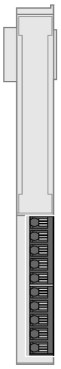
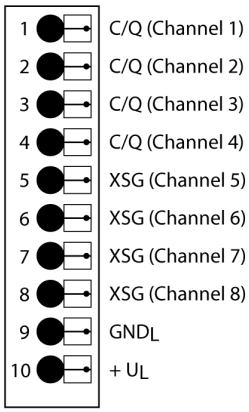
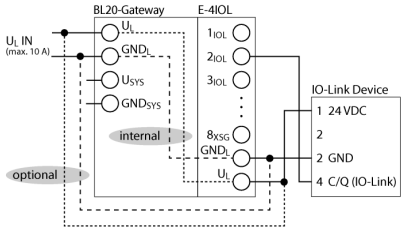
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Frame type	supports all specified framet types
Supported devices	max. 14 byte input / 14 byte output
Transmission rate	4.8 kbps (COM 1) / 38.4 kbps (COM 2) / 230 kbps (COM 3)

Number of diagnostics bytes	8
Number of parameter bytes	16
Number of input bytes	16
Number of output bytes	16

Dimensions (W x L x H)	13 x 128.9 x 74.6 mm
Approvals	CE, cULus, GOST
Ambient temperature	0…+55 °C
Storage temperature	-40…+85 °C
Relative humidity	15…95 %, no condensation allowed
Vibration test	Acc. to EN 61131
Shock test	Acc. to IEC 60068-2-27
Drop and topple	Acc. to IEC 60068-2-31
Electromagnetic compatibility	Acc. to EN 61131-2
Protection class	IP20
MTTF	388 years acc. to SN 29500 (Ed. 99) 20 °C

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Terminal assignment

<table>
<tr>
<td></td>
<td>I/O Channels
Channels 1 to 4 are IO-Link master channels. Channels 5 to 8 are XSG channels (optionally usable as digital inputs or outputs) The terminals 9 and 10 are used for sensor supply.</td>
<td>Pin Assignment

</td>
</tr>
<tr>
<td></td>
<td>Attention:
The IO-Link devices must be supplied with the same potential as U_L of the gateway or the BR / PF module (if used).</td>
<td>Wiring Diagram

</td>
</tr>
</table>

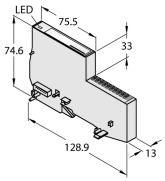
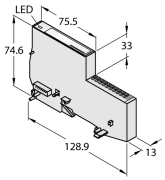
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LED display

LED	Color	Status	Meaning
D		OFF	No error message or diagnostics active.
	RED	ON	Failure of module bus communication. Check if more than 2 adjacent electronic modules are pulled. Relevant modules are located between gateway and this module.
	RED	FLASHING (0.5 Hz)	Upcoming module diagnostics
XSG channel 0...7		OFF	Input or output status OFF, no diag. active
	GREEN	ON	Input or output status ON
	RED	ON	Short circuit at output
	RED	FLASHING (2 Hz)	Short circuit in sensor supply
XSG channel 0...7		OFF	Input or output status OFF, no diag. active
	GREEN	ON	Input or output status ON
	RED	ON	Short circuit at output
	RED	FLASHING (2 Hz)	Short circuit in sensor supply

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Accessories

Type code	Ident-No.		Dimension drawing
BL20-E-10UL	100001335	BL20 ECO module with 10 connection terminals for wiring 24 VDC potential from the UL field supply	
BL20-E-10GNDL	100001336	BL20 ECO module with 10 connection terminals for wiring GND potential from the UL field supply	

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