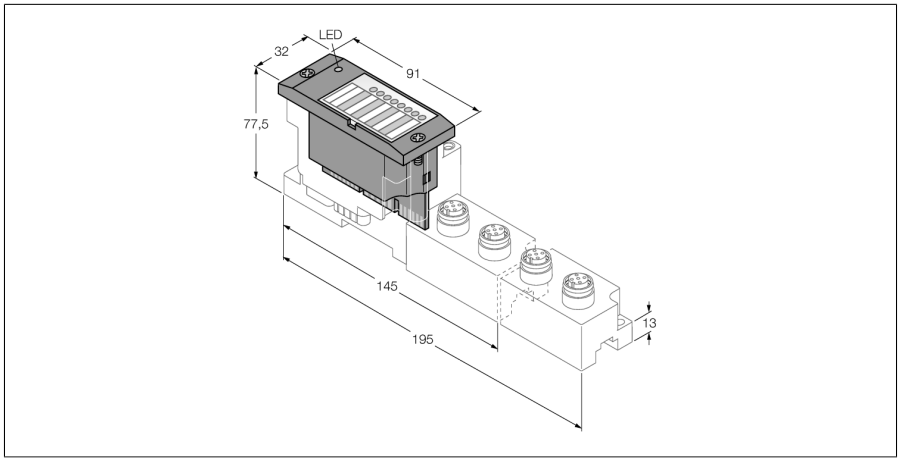
BL67 Electronic Module
4 IO-Link Master Channels, 16 Bytes of I/O Data
4 Configurable Digital Channels, PNP, Channel Diagnostics, 0.5 A
BL67-4IOL



- Independent of the fieldbus and connection technology used
- Protection class IP67
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- 4 IO-Link master acc. to specification V1.1
- 4 universal digital channels, PNP, channel diagnostics, 0.5 A

Functional principle

BL67 electronic modules are plugged on the purely passive base modules which in turn are connected to the field devices. The separation of connection level and electronics simplifies maintenance considerably. Flexibility is enhanced because the user can choose between base modules with different connection technologies.

The electronic modules are completely independent of the higher level fieldbus through the use of gateways.

Type	BL67-4IOL
ID	6827386

Number of channels	4/4
Supply voltage	24 VDC
Nominal voltage V_i	24 VDC
Nominal voltage V_o	24 VDC
Nominal current from field supply	≤ 80 mA
Nominal current from module bus	≤ 40 mA
Max. sensor supply I_{sens}	4 A electronically limited current supply via gateway or power feed
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 for the field level
Output connectivity	M12

Output type	PNP
Output voltage	24 VDC
Output current per channel	0.5 A
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 for the field level

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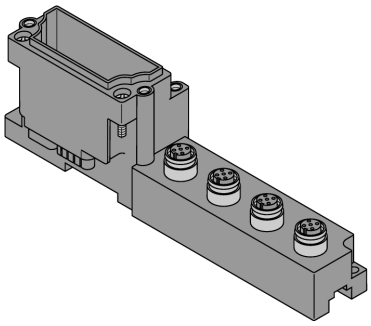
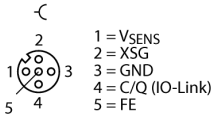
IO-Link	Pin 4 in IOL mode
IO-Link specification	V 1.1
IO-Link port type	Class A
Frame type	supports all specified framet types
Supported devices	max. 14 byte input / 14 byte output
Transmission rate	4.8 kbps (COM 1) / 38.4 kbps (COM 2) / 230 kbps (COM 3)

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)	32 x 91 x 59 mm
Approvals	CE, cULus, GOST
Ambient temperature	-40…+70 °C
	Operating temperature restriction: IO-Link ports as DI: -40…+55 °C
Storage temperature	-40…+85 °C
Relative humidity	5…95 % (internal), level RH-2, no condensation (when stored at 45 °C)
Vibration test	Acc. to EN 61131
- up to 5 g (at 10 to 150 Hz)	for mounting on DIN rail no drilling according to EN 60715, with end bracket
- up to 20 g (at 10 up to 150 Hz)	for mounting on base plate or machinery Therefore every second module has to be mounted with two screws each.
Shock test	Acc. to IEC 60068-2-27
Drop and topple	acc. to IEC 68-2-31 and free fall to IEC 68-2-32
Electromagnetic compatibility	Acc. to EN 61131-2
Protection class	IP67
MTTF	393 years acc. to SN 29500 (Ed. 99) 20 °C
Tightening torque fixing screw	0.9…1.2 Nm

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Compatible base modules

Dimension drawing	Type	Pin configuration
	**BL67-B-4M12** 6827187 4 x M12, 5-pin, female	Pin Assignment 

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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

Compatible gateways

Ident. no.	Type	Communication	Version and higher	Application
6827232	BL67-GW-DPV1	PROFIBUS-DP	FW v1.27	PLC systems with PROFIBUS-DP master.
6827214	BL67-GW-EN	PROFINET EtherNet/IP™ Modbus TCP	FW v3.0.9.0	Multiprotocol Ethernet gateway for PLC systems with PROFINET, EtherNet/IP™ or Modbus TCP master.
6827183	BL67-GW-DN	DeviceNet™	V7.18	PLC systems with DeviceNet™ master

Compatible CODESYS programmable gateways
(With target support package from version 2.1.3.0)

Ident. no.	Type	Communication	Version and higher	Application
6827240	BL67-PG-DP	PROFIBUS-DP	FW v2.0.5.0	PLC systems with PROFIBUS-DP master.
6827241	BL67-PG-EN	Modbus TCP	FW v2.10.0.3	PLC systems with Modbus TCP master or PC based solution using a Modbus driver software.
6827246	BL67-PG-EN-IP	EtherNet/IP™	FW v2.0.5.0	PLC systems with EtherNet/IP™ scanner (master).

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