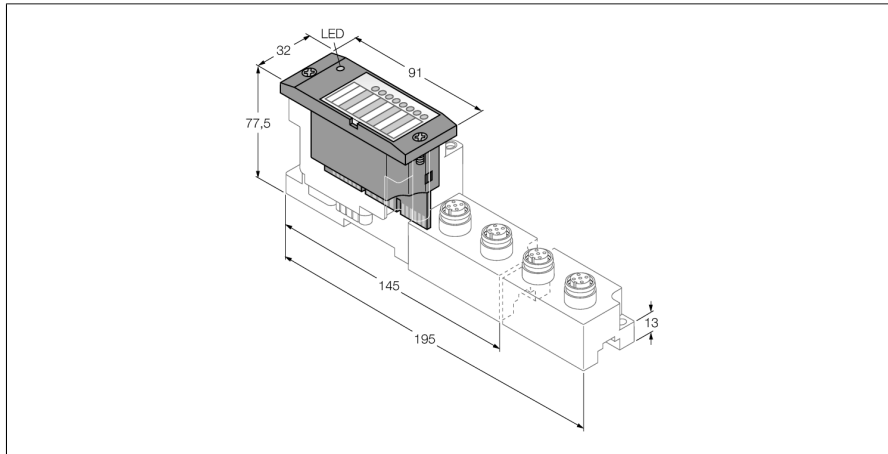


BL67 electronic module

8 Isolated Relay Outputs, NO

BL67-8DO-R-NO



- Independent of the fieldbus and connection technology used
- Protection class IP67
- LEDs for status display
- Electronics galvanically separated from the field level via optocouplers
- 8 isolated relay outputs
- Potential-free electronic relay contact (MOSFET)
- Max. 0.1A

Functional principle

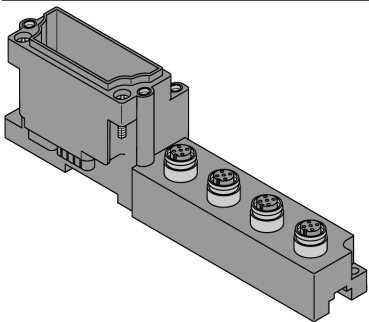
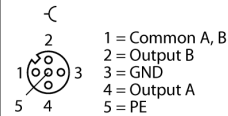
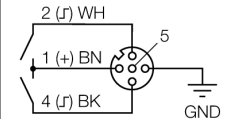
BL67 electronic modules are plugged on the purely passive base modules which in turn are connected to the field devices. The separation of connection level and electronics simplifies maintenance considerably. Flexibility is enhanced because the user can choose between base modules with different connection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

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

Type	BL67-8DO-R-NO
ID	6827277
Number of channels	8
Supply voltage	24 VDC
Nominal current from module bus	≤ 50 mA
Power dissipation, typical	≤ 2 W
Output connectivity	M12
Output type	Potential-free electronic relay contact (MOSFET)
Switching resistor	< 31 Ω
Output voltage	Max. 50 V peak-peak voltage ($U_{eff} \leq 50 \text{ VDC}/17.6 \text{ VAC}$)
Output current per channel	100 mA at 25 °C / 50 mA at 55 °C
Output delay	3 ms
Load type	resistive, TTL logic
Switching frequency, resistive	< 200 Hz
Short-circuit protection	no
Simultaneity factor	1
Electrical isolation	Electronics to the field level 250 VAC, channel to channel 50 VAC, channel to PE 100 VAC

Dimensions (W x L x H)	32 x 91 x 59 mm
Approvals	CE, cULus
Ambient temperature	0...+55 °C
Temperature derating	
> 55 °C Circulating air (Ventilation)	max 25 mA output current per channel
> 55 °C Steady ambient air	max. 25 mA output current per channel
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
Tightening torque fixing screw	0.9...1.2 Nm

Compatible base modules

Dimension drawing	Type	Pin configuration
	BL67-B-4M12-P 6827195 4 x M12, 5-pole, female, paired Comments Matching connection cable (for example): RKC4.4T-2-RSC4.4T/TXL Ident-No. 6625608	Pin Assignment  Wiring Diagram 

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
DO channels		OFF	Status channel x = 0 (OFF)
0...7	GREEN	ON	Status channel x = 1 (ON)

Data mapping

DATA	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	m	DO 7	DO 6	DO 5	DO 4	DO 3	DO 2	DO 1	DO 0

n = Offset of input data; depending on extension of station and the corresponding fieldbus.

m = Offset of output data; depending on extension of station and the corresponding fieldbus.

With PROFIBUS, PROFINET and CANopen, the I/O data of this module is localized within the process data of the whole station via the hardware configuration tool of the fieldbus master.

With DeviceNet™, EtherNet/IP™ and Modbus TCP a detailed mapping table can be created with the TURCK configuration tool I/O-ASSISTANT.

Pin assignment at corresponding base module:

DATA	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
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BL67-B-4M12-P									
Output	m	C3 P2	C3 P4	C2 P2	C2 P4	C1 P2	C1 P4	C0 P2	C0 P4

C... = slot no., P... = pin no.