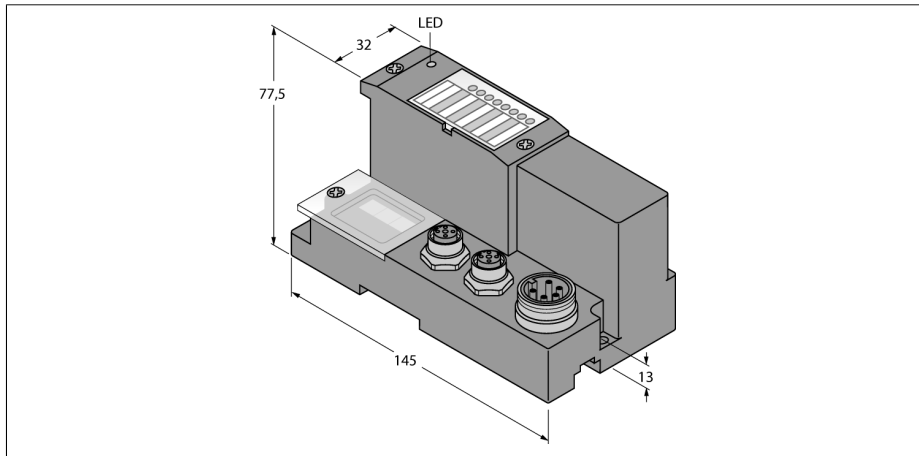# Gateway for BL67 I/O system
multiprotocol interface for Ethernet
BL67-GW-EN

- **3 decimal rotary coding switches**
- **Protection class IP67**
- **LEDs for display of supply voltage, group and bus errors**
- **Multiprotocol interface between the BL67 system and the Ethernet protocols Modbus TCP and EtherNet/IP™ and PROFINET (from VN 03-00)**
- **PROFINET supports fast start-up (FSU)**
- **EtherNet/IP™ supports QuickConnect (QC)**
- **Integrated switch 10/100 Mbps**
- **Two males M12, 4-pin, D-coded, for fieldbus connection (from VN 03-00)**
- **One male 7/8", 5-pin, for power supply**

Type	BL67-GW-EN
Ident-No.	6827214

Supply voltage	24 VDC
Admissible range	18…30 VDC
Rated current from module bus	≤ 600 mA
max. sensor supply I_{sens}	4 A electronically limited current supply
Max. load current I_o	10 A

System data	
Max. number of I/O modules	32
Transmission rate	10/100 Mbps; Full/Half Duplex; Auto Negotiation; Auto Crossing
Connection technology Ethernet	female M12 x 2, 4-pin,D-coded
Protocol detection	automatic
Web server	in preparation
Service interface	Mini USB, Ethernet

Modbus TCP	
Addressing	Static IP, BOOTP, DHCP
Supported function codes	FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
Simultaneous CIP connections	6
Input Data Size	max. 1024 register
Input register start address	0
Output Data Size	max. 1024 register
Output register start address	2048 (0x0800 hex)

EtherNet/IP™	
Addressing	acc. to EtherNet/IP™ specification
Quick Connect (QC)	< 150 ms
Device Level Ring (DLR)	supported
Simultaneous CIP connections	6

PROFINET	(available Q1/2013)
Addressing	DCP
Conformance Class	B (RT)
MinCycleTime	1 ms
Fast Start-Up (FSU)	< 150 ms
Diagnostics	acc. to PROFINET Alarm Handling
Topology detection	supported
Automatic addressing	supported

Functional principle

BL67 gateways are the head component of a BL67 station. They are designed to connect the modular fieldbus nodes to the higher level fieldbus (PROFIBUS-DP, DeviceNet™, CANopen, Ethernet Modbus TCP, PROFINET IO or EtherNet/IP™).

All BL67 electronic modules communicate over the internal module bus, the data of which is transferred to the fieldbus via the gateway. All I/O modules can thus be configured independently of the bus system.

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Dimensions (W x L x H)	74x145x77.5mm
Approvals	CE, cULus
Operating temperature	-40…+70 °C
Temperature derating	
> 55 °C Circulating air (Ventilation)	no limitation
> 55 °C Steady ambient air	Isens < 3A, Imb < 1A
Storage temperature	-40 … +85 °C
Relative humidity	5 to 95% (internal), Level RH-2, no condensation (at 45 °C storage)
Vibration test	acc. to EN 61131
Extended vibartion resistance	VN 02-00 and higher
- 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 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 68-2-27
Drop and topple	acc. to IEC 68-2-31 and free fall to IEC 68-2-32
Electro-magnetic compatibility	acc. to EN 61131-2
Protection class	IP67
DIN rail mounting	yes, Attention: Offset
Direct mounting	Two mounting holes, 6 mm Ø

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Industrial
Automation

Pin configuration and supply concept

	Ethernet ports Starting from version VN 03-00, the gateway features two D-coded M12 Ethernet ports with integrated switch. The ports are used as interfaces for configuration and fieldbus communication. The gateway supports the EtherNet/IP™ and Modbus TCP protocols	Pin assignment 1 = YE (TX+) 2 = WH (RX+) 3 = OG (TX−) 4 = BU (RX−)
	Power supply Double-tuned power supply of the BL67 system. System power supply V_i V_i is for the internal system supply at the backplane bus($V_{MB(5V)}$) and for the 4A short-circuit limited sensor supply (V_{sens}). Load voltage V_o V_o for output supply, limited to max.10A.	Pin assignment 1 = GND 2 = GND 3 = PE 4 = V_i 5 = V_O