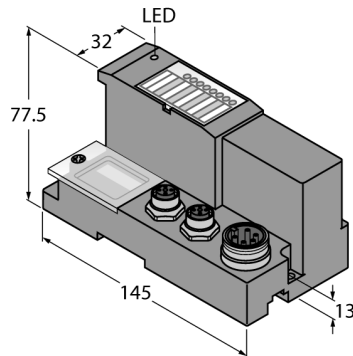


# Gateway for BL67 I/O system multiprotocol interface for Ethernet BL67-GW-EN



Industrial  
Automation



- 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, EtherNet/IP™ and PROFINET
- PROFINET supports fast start-up (FSU)
- EtherNet/IP™ supports QuickConnect (QC)
- Integrated switch 10/100 Mbps
- Two female M12, 4-pin, D-coded, for fieldbus connection (from VN 03-00)
- One male 7/8", 5-pin, for power supply

|                                          |                                                                |
|------------------------------------------|----------------------------------------------------------------|
| <b>Type designation</b>                  | BL67-GW-EN                                                     |
| Ident-No.                                | 6827214                                                        |
| Ident-No (TUSA)                          | M6827214                                                       |
| <b>Supply voltage</b>                    | 24 VDC                                                         |
| Admissible range                         | 18...30 VDC                                                    |
| Nominal current from module bus          | ≤ 600 mA                                                       |
| max. system supply current $I_{mb (SV)}$ | 1.3 A                                                          |
| Max. sensor supply $I_{sens}$            | 4 A electronically limited current supply                      |
| max. load current $I_o$                  | 10 A                                                           |
| <b>System data</b>                       |                                                                |
| 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                                             |
| <b>Modbus TCP</b>                        |                                                                |
| Addressing                               | Static IP, BOOTP, DHCP                                         |
| Supported function codes                 | FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23                 |
| Number of TCP connections                | 6                                                              |
| Input Data Size                          | max. 1024 register                                             |
| Input register start address             | 0 (0x0000 hex)                                                 |
| Output Data Size                         | max. 1024 register                                             |
| Output register start address            | 2048 (0x0800 hex)                                              |
| <b>EtherNet/IP™</b>                      | (Version ≥ VN 03-01)                                           |
| Addressing                               | acc. to EtherNet/IP™ specification                             |
| Quick Connect (QC)                       | < 150 ms                                                       |
| Device Level Ring (DLR)                  | supported                                                      |
| Number of CIP connections                | 6                                                              |
| <b>PROFINET</b>                          | (Version ≥ VN 03-02)                                           |
| 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.

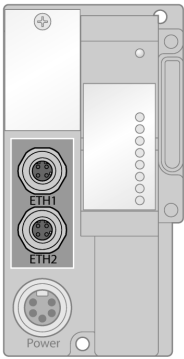
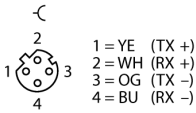
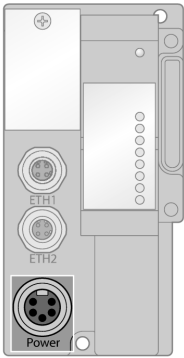
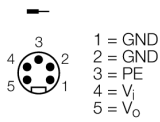
**Gateway for BL67 I/O system**  
**multiprotocol interface for Ethernet**  
**BL67-GW-EN**



|                                       |                                                                                                                     |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Dimensions (W x L x H)</b>         | 74 x 145 x 77.5mm                                                                                                   |
| 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<br>(at 45 °C storage)                                             |
| Vibration test                        | acc. to EN 61131                                                                                                    |
| Extended vibration 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<br>60715, with end bracket                                     |
| - up to 20 g (at 10 up to 150 Hz)     | for mounting on base plate or machinery Therefore<br>every second module has to be mounted with two<br>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                                                                                          |

Gateway for BL67 I/O system  
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Pin configuration and supply concept

|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                           |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|   | <p><b>Ethernet Ports</b></p> <p>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</p>                                                                                                                  | <p>Pin Assignment</p>  |
|  | <p><b>Power Supply</b></p> <p>Double-tuned power supply of the BL67 system.</p> <p>System power supply <math>V_i</math><br/><math>V_i</math> is for the internal system supply at the backplane bus(<math>V_{MB(SV)}</math>) and for the 4A short-circuit limited sensor supply (<math>V_{sens}</math>).</p> <p>Load voltage <math>V_o</math><br/><math>V_o</math> for output supply, limited to max. 10A.</p> | <p>Pin Assignment</p>  |