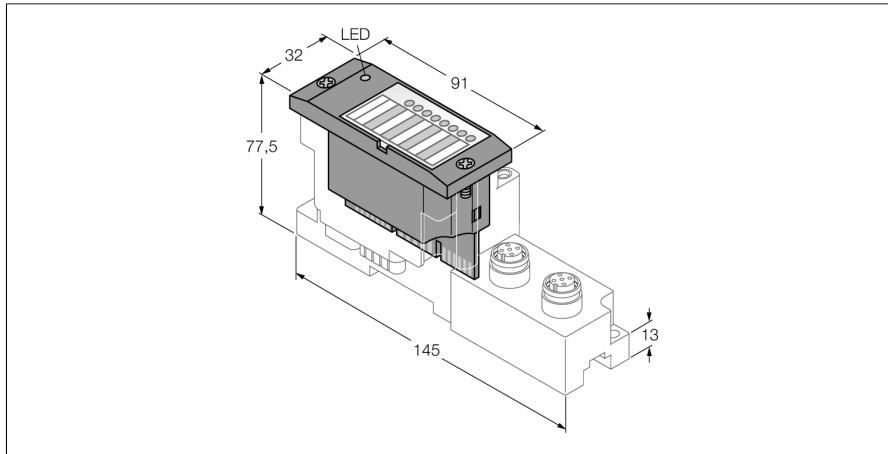


# BL67 Electronic Module

## 2 RFID Channels (HF/UHF)

### BL67-2RFID-A



- This module is used with the BL67-GW-DPV1
- Protection class IP67
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- Connection of two BL ident read/write heads
- Mixed operation of HF and UHF read/write heads
- Transmission rate: 115.2 kbps
- Cable length max. 50 m

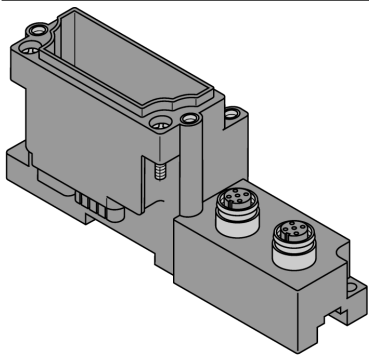
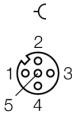
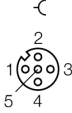
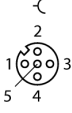
#### Functional principle

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                              | BL67-2RFID-A                                                                                                  |
| ID                                | 6827225                                                                                                       |
| Number of channels                | 2                                                                                                             |
| Supply voltage                    | 24 VDC                                                                                                        |
| Nominal voltage $V_i$             | 24 VDC                                                                                                        |
| Nominal current from field supply | $\leq 100$ mA                                                                                                 |
| Nominal current from module bus   | $\leq 30$ mA                                                                                                  |
| Power dissipation, typical        | $\leq 1$ W                                                                                                    |
| Transmission rate                 | 115.2 kbps                                                                                                    |
| Cable length                      | 50 m                                                                                                          |
| Electrical isolation              | isolation of electronics and field level via optocouplers                                                     |
| Output connectivity               | M12                                                                                                           |
| Sensor supply                     | 0.5 A per channel, short-circuit proof                                                                        |
| Dimensions (W x L x H)            | 32 x 91 x 59 mm                                                                                               |
| Approvals                         | CE, cULus                                                                                                     |
| Ambient temperature               | -40...+70 °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                              | 212 years acc. to SN 29500 (Ed. 99) 40 °C                                                                     |
| Tightening torque fixing screw    | 0.9...1.2 Nm                                                                                                  |

Compatible base modules

| Dimension drawing                                                                 | Type                                                                                                                                                                                          | Pin configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>BL67-B-2M12</b><br/>6827186<br/>2 x M12, 5-pole, female, a-coded</p> <p><b>Comments</b><br/>Matching connection cable (for example):<br/>RK4.5T5-RS4.5T/S2500<br/>Ident-No. 6699201</p> | <p>.../S2500 Connectors</p> <div><ul style="list-style-type: none"><li>1 = BN (+)</li><li>2 = BK (Data)</li><li>3 = BU (GND)</li><li>4 = WH (Data)</li><li>5 = shield</li></ul></div> <p>.../S2501 Connectors</p> <div><ul style="list-style-type: none"><li>1 = BN (+)</li><li>2 = WH (Data)</li><li>3 = BU (GND)</li><li>4 = BK (Data)</li><li>5 = shield</li></ul></div> <p>Connectors .../S2503</p> <div><ul style="list-style-type: none"><li>1 = RD (+)</li><li>2 = BU (Data)</li><li>3 = BK (GND)</li><li>4 = WH (Data)</li><li>5 = shield</li></ul></div> |

#### 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                                                                                                                                     |
| RW0 / RW1 |       | OFF               | No tag, no active diagnostics                                                                                                                                   |
|           | GREEN | ON                | Tag available                                                                                                                                                   |
|           | GREEN | FLASHING (2 Hz)   | Data exchange with tag enabled                                                                                                                                  |
|           | RED   | ON                | Read/write head error                                                                                                                                           |
|           | RED   | FLASHING (2 Hz)   | Short-circuit in the supply line of read/write head                                                                                                             |

#### Compatible gateways

| ID      | Type         | Communication                         | Version and higher | Application                                                                                                                                                                         |
|---------|--------------|---------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6827232 | BL67-GW-DPV1 | PROFIBUS-DP                           | FW 1.10            | Siemens PLC systems with Profibus DPV1 master and PIB (Proxy Ident Block) function block. The PIB is required for controlling the RFID system and uses internally acyclic services. |
| 6827214 | BL67-GW-EN   | Modbus TCP<br>PROFINET<br>EtherNet/IP | FW 3.0.2.0         | Siemens PLC systems with PROFINET master. (Modbus TCP and EtherNet/IP are not supported by the BL20-2RFID-A)                                                                        |

#### Compatible CODESYS V3 programmable gateways

| ID        | Type             | Communication                         | Version and higher | Application                                                                                                                                                                     |
|-----------|------------------|---------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6827394   | BL67-PG-EN-V3    | Modbus TCP<br>PROFINET<br>EtherNet/IP | FW V1.0.7.0        | PLC systems with Modbus TCP master or PC-based solutions using a Modbus driver software.<br>PLC systems with EtherNet/IP scanner (master).<br>PLC systems with PROFINET master. |
| 100000041 | BL67-PG-EN-V3-WV | Modbus TCP<br>PROFINET<br>EtherNet/IP | FW 1.0.7.0         | PLC systems with Modbus TCP master or PC-based solutions using a Modbus driver software.<br>PLC systems with EtherNet/IP scanner (master).<br>PLC systems with PROFINET master. |

The CODESYS programmable gateways can be used for quick and decentralized preprocessing or as a stand-alone solution. The CODESYS PIB (Proxy Ident Block) function block is required in every case. The library with the PIB is included in the CODESYS target files.