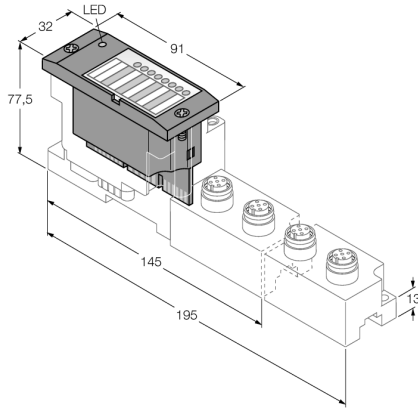


# BL67 electronic module

## 4 Digital Outputs, PNP, 2.0 A

### BL67-4DO-2A-P



- Kullanılan fieldbus ve bağlantı teknolojilerinden bağımsız
- Koruma sınıfı IP67
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- 4 digital outputs, 24 VDC
- Max. 2 A
- PNP switching
- From version VN 01-07 and higher, the module supports accelerated start-up for applications with Fast Start-Up (FSU) and QuickConnect (QC).

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Tip                                    | BL67-4DO-2A-P                                                       |
| Tanıt. no.                             | 6827174                                                             |
| Kanal sayısı                           | 4                                                                   |
| Besleme gerilimi                       | 24 VDC                                                              |
| Nominal gerilim $V_o$                  | 24 VDC                                                              |
| Alan beslemesinden gelen nominal akım  | $\leq 100$ mA                                                       |
| Modül veri yolundan gelen nominal akım | $\leq 30$ mA                                                        |
| Max. sensor supply $I_{sens}$          | 4 A electronically limited current supply via gateway or power feed |
| max. load current $I_o$                | 10 A via gateway or power feed                                      |
| Güç dağılımı, tipik                    | $\leq 1.5$ W                                                        |
| Çıkış bağlantısı                       | M8, M12, M23                                                        |
| Çıkış tipi                             | PNP                                                                 |
| Çıkış voltajı                          | 24 VDC                                                              |
| Kanal başına çıkış akımı               | 2.0 A                                                               |
| Çıkış gecikmesi                        | 3 ms                                                                |
| Yük tipi                               | resistive, inductive, lamp load                                     |
| Yük direnci, dirençli                  | $> 12 \Omega$                                                       |
| Yük direnci, endüktif                  | $< 1.2$ H                                                           |
| Lamba yükü                             | $< 10$ W                                                            |
| Anahtarlama frekansı, dirençli         | $< 200$ Hz                                                          |
| Anahtarlama frekansı, endüktif         | $< 2$ Hz                                                            |
| Anahtarlama frekansı, lamba yükü       | $< 20$ Hz                                                           |
| Kısa devre koruması                    | evet                                                                |
| Simultaneity factor                    | 1                                                                   |
| Elektrik yalıtımı                      | electronics for the field level                                     |
| Tanımlama bit sayısı                   | 4                                                                   |

#### İşlevsel prensip

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.

|                                   |                                                                                                               |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------|
| Boyutlar (W x L x H)              | 32 x 91 x 59 mm                                                                                               |
| Onaylar                           | CE, cULus                                                                                                     |
| Ortam sıcaklığı                   | -40...+70 °C                                                                                                  |
| Sıcaklık değeri kaybı             |                                                                                                               |
| < 0°C Ortam sıcaklığı             | Support for version VN 01-03 and higher, no limitation                                                        |
| > 55°C Sabit ortam havası         | Simultaneity factor 0.5                                                                                       |
| Saklama sıcaklığı                 | -40...+85 °C                                                                                                  |
| Bağıl nem                         | %5...95 (dahili), seviye RH-2, yoğuşmasız (45°C'de depolandığında)                                            |
| Titreşim testi                    | EN 61131 uyarınca                                                                                             |
| - 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. |
| Darbe testi                       | IEC 60068-2-27 uyarınca                                                                                       |
| Düşme ve devrilme                 | acc. to IEC 68-2-31 and free fall to IEC 68-2-32                                                              |
| Elektromanyetik uyumluluk         | EN 61131-2 uyarınca                                                                                           |
| IP Derecesi                       | IP67                                                                                                          |
| Tightening torque fixing screw    | 0,9...1,2 Nm                                                                                                  |

## Compatible base modules

| Ölçekli çizim | Type                                                                                                                                                                                                                                                                                                                                                                                           | Pin configuration                                                                                                                                                                                                               |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>BL67-B-4M8</b><br>6827189<br>4 x M8, 3-pole, female<br><br><b>Comments</b><br>Bağlantı kablosunun eşleştirilmesi (örnek):<br>PKG3M-2-PSW3M/TXL<br>Tanım. No. 6625668                                                                                                                                                                                                                        | <b>Tel ataması</b><br><br>1 = V <sub>SENS</sub><br>3 = GND<br>4 = Output A<br><br><b>Wiring Diagram</b><br>                                                                                                                     |
|               | <b>BL67-B-2M12</b><br>6827186<br>2 x M12, 5-pole, female, A-coded<br><br><b>Comments</b><br>Bağlantı kablosunun eşleştirilmesi (örnek):<br>RKC4.4T-2-RSC4.4T/TXL<br>Tanım. No. 6625608<br><br><b>BL67-B-2M12-P</b><br>6827194<br>2 x M12, 5-pole, female, A-coded, paired<br><br><b>Comments</b><br>Bağlantı kablosunun eşleştirilmesi (örnek):<br>RKC4.4T-2-RSC4.4T/TXL<br>Tanım. No. 6625608 | <b>Tel ataması</b><br><br>1 = V <sub>SENS</sub><br>2 = Output B<br>3 = GND<br>4 = Output A<br>5 = PE<br><br><b>Wiring Diagram</b><br>                                                                                           |
|               | <b>BL67-B-4M12</b><br>6827187<br>4 x M12, 5-pole, female, A-coded<br><br><b>Comments</b><br>Bağlantı kablosunun eşleştirilmesi (örnek):<br>RKC4.4T-2-RSC4.4T/TXL<br>Tanım. No. 6625608                                                                                                                                                                                                         | <b>Tel ataması</b><br><br>1 = V <sub>SENS</sub><br>2 = n.c.<br>3 = GND<br>4 = Output A<br>5 = PE<br><br><b>Wiring Diagram</b><br>                                                                                               |
|               | <b>BL67-B-1M23</b><br>6827213<br>1 x M23, 12-pole, female<br><br><b>Comments</b><br>field-wireable connector (for example):<br>FW-M23ST12Q-G-LT-ME-XX-10<br>Ident-No. 6604070                                                                                                                                                                                                                  | <b>Tel ataması</b><br><br>1 = Signal 0<br>2 = Signal 1<br>3 = Signal 2<br>4 = Signal 3<br>5 = n.c.<br>6 = n.c.<br>7 = n.c.<br>8 = n.c.<br>9 = V <sub>SENS</sub><br>10 = V <sub>SENS</sub><br>11 = V <sub>SENS</sub><br>12 = GND |

# 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<br>0...3 |       | OFF               | Status output x = 0 (OFF),<br>no active diagnostics                                                                                                             |
|                      | GREEN | ON                | Output status x = 1 (ON)                                                                                                                                        |
|                      | RED   | ON                | Short-circuit/overload at output x                                                                                                                              |

#### Data mapping

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

|                         |   |   |   |   |   |       |       |       |       |
|-------------------------|---|---|---|---|---|-------|-------|-------|-------|
| <b>BL67-B-4M8</b>       |   |   |   |   |   |       |       |       |       |
| Output                  | m | - | - | - | - | C3 P4 | C2 P4 | C1 P4 | C0 P4 |
| <b>BL67-B-2M12</b>      |   |   |   |   |   |       |       |       |       |
| Output                  | m | - | - | - | - | C1 P2 | C0 P2 | C1 P4 | C0 P4 |
| <b>BL67-B-2M12-P</b>    |   |   |   |   |   |       |       |       |       |
| Output                  | m | - | - | - | - | C1 P2 | C1 P4 | C0 P2 | C0 P4 |
| <b>BL67-B-4M12</b>      |   |   |   |   |   |       |       |       |       |
| Output                  | m | - | - | - | - | C3 P4 | C2 P4 | C1 P4 | C0 P4 |
| <b>BL67-B-1M23(-VI)</b> |   |   |   |   |   |       |       |       |       |
| Output                  | m | - | - | - | - | C0 P4 | C0 P3 | C0 P2 | C0 P1 |

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