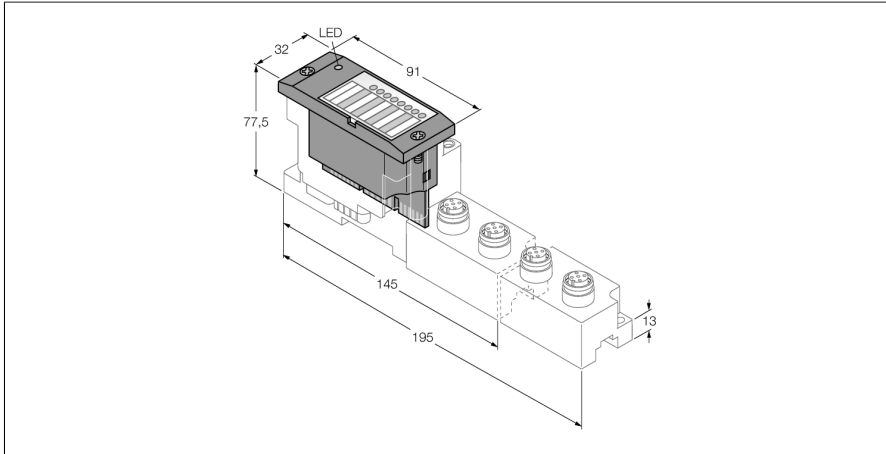


BL67 electronic module

4 Digital Inputs, Channel Diagnostics, 4 Digital Outputs, PNP, 0.5 A

BL67-4DI4DO-PD



- Kullanılan fieldbus ve bağlantı teknolojisinden bağımsız
- Koruma sınıfı IP67
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- 4 digital inputs, 24 VDC
- 4 digital outputs, 24 VDC, max. 0.5 A
- PNP switching
- Channel diagnostics
- Adjustable filter times
- Invertible inputs

Tip	BL67-4DI4DO-PD
Tanıt. no.	6827203
Kanal sayısı	8
Besleme gerilimi	24 VDC
Nominal gerilim V_o	24 VDC
Alan beslemesinden gelen nominal akım	≤ 100 mA
Modül veri yolundan gelen nominal akım	≤ 30 mA
Max. sensor supply I_{sens}	100 mA For 2 channels (\Rightarrow e.g. per M12 slot), electronically limited current supply
max. load current I_o	10 A via gateway or power feed
Güç dağılımı, tipik	≤ 1.5 W

Giriş tipi	PNP
Type of input diagnostics	channel diagnostics
Düşük seviye sinyal gerilimi	< 4.5 V
Yüksek seviye sinyal gerilimi	7...30 V
Düşük seviye sinyal akımı	< 1.5 mA
Yüksek seviye sinyal akımı	2.1...3.7 mA
Giriş gecikmesi	0.25; 2.5 ms
Elektrik yalıtımı	electronics for the field level
Çıkış bağlantısı	M8, M12, M23

Çıkış tipi	PNP
Çıkış voltajı	24 VDC
Kanal başına çıkış akımı	0.5 A
Çıkış gecikmesi	3 ms
Yük tipi	resistive, inductive, lamp load
Yük direnci, dirençli	> 48 Ω
Yük direnci, endüktif	< 1.2 H
Lamba yükü	< 3 W
Anahtarlama frekansı, dirençli	< 200 Hz
Anahtarlama frekansı, endüktif	< 2 Hz
Anahtarlama frekansı, lamba yükü	< 20 Hz
Elektrik yalıtımı	electronics for the field level

İşlevsel prensip

BL67 electronic modules are plugged into the purely passive base modules which are needed for connection of 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.

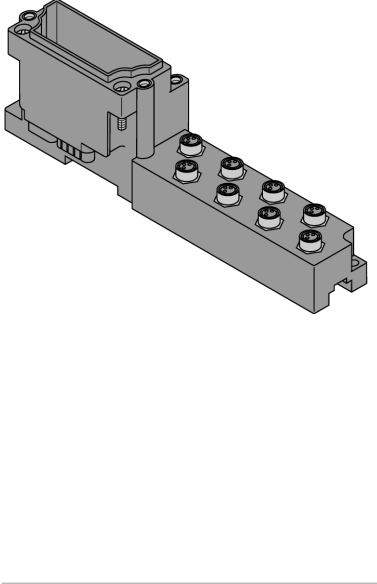
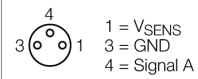
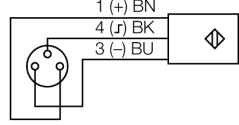
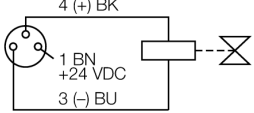
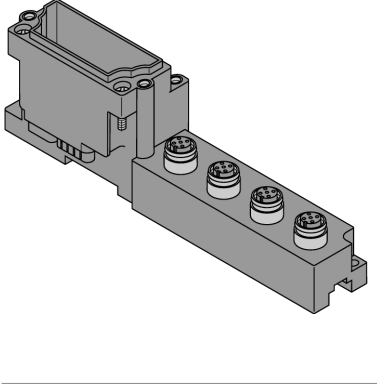
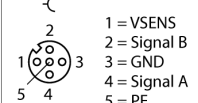
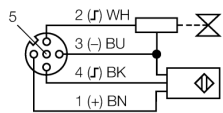
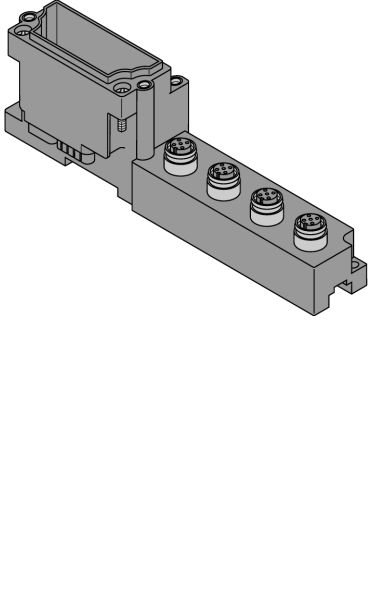
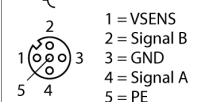
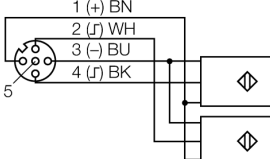
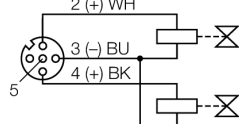
Note

The inputs and outputs of the digital combi-module are supplied via a common GND. Therefore, we recommend **not** to use this module for safety or emergency stop applications.

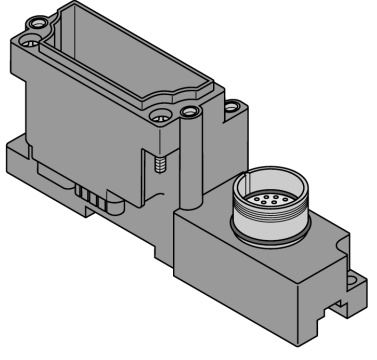

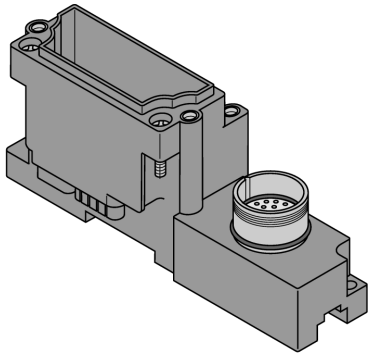

Otherwise, it must be ensured that V_i and V_o at the gateway or power feeding module are all-pole disabled.

Tanımlama bit sayısı	8
Parametre bayt sayısı	4
Boyutlar (W x L x H)	32 x 91 x 59 mm
Onaylar	CE
Ortam sıcaklığı	-40...+70 °C
Sıcaklık değeri kaybı	
< 0°C Ortam sıcaklığı	Support for version VN 01-03 and higher, no limitation
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
	<p>BL67-B-8M8 6827188 8 x M8, 3-pole, female</p> <p>Comments Bağlantı kablosunun eşleştirilmesi (örnek): PKG3M-2-PSW3M/TXL Tanım. No. 6625668</p>	<p>Tel ataması</p>  <p>1 = VSENS 3 = GND 4 = Signal A</p> <p>Wiring Diagram Ports 0 to 3</p>  <p>Connection diagram, port 4 to 7</p> 
	<p>BL67-B-4M12 6827187 4 x M12, 5-pole, female</p> <p>Comments Bağlantı kablosunun eşleştirilmesi (örnek): RKC4.4T-2-RSC4.4T/TXL Tanım. No. 6625608 Olası uygulamalar Tepeden Işığa ışık ekranını tetikleme İş sırası kontrolü</p>	<p>Tel ataması</p>  <p>1 = VSENS 2 = Signal B 3 = GND 4 = Signal A 5 = PE</p> <p>Wiring Diagram Ports 0 to 3</p> 
	<p>BL67-B-4M12-P 6827195 4 x M12, 5-pole, female, paired</p> <p>Comments Bağlantı kablosunun eşleştirilmesi (örnek): RKC4.4T-2-RSC4.4T/TXL Tanım. No. 6625608</p>	<p>Tel ataması</p>  <p>1 = VSENS 2 = Signal B 3 = GND 4 = Signal A 5 = PE</p> <p>Wiring Diagram Ports 0 and 1</p>  <p>Wiring diagram port 2 and 3</p> 

Compatible base modules

Ölçekli çizim	Type	Pin configuration												
	<p>BL67-B-1M23-VI 6827290 1 x M23, 12-pole, female</p> <p>Comments Matching connection cable (for example): FW-M23ST12Q-G-LT-ME-XX-10 Ident no. 6604070</p>	<p>Tel ataması</p>  <table border="0"> <tr> <td>1 = Signal 0</td> <td>7 = Signal 6</td> </tr> <tr> <td>2 = Signal 1</td> <td>8 = Signal 7</td> </tr> <tr> <td>3 = Signal 2</td> <td>9 = V_SSENS</td> </tr> <tr> <td>4 = Signal 3</td> <td>10 = V_SSENS</td> </tr> <tr> <td>5 = Signal 4</td> <td>11 = V_SSENS</td> </tr> <tr> <td>6 = Signal 5</td> <td>12 = GND</td> </tr> </table>	1 = Signal 0	7 = Signal 6	2 = Signal 1	8 = Signal 7	3 = Signal 2	9 = V _S SENS	4 = Signal 3	10 = V _S SENS	5 = Signal 4	11 = V _S SENS	6 = Signal 5	12 = GND
1 = Signal 0	7 = Signal 6													
2 = Signal 1	8 = Signal 7													
3 = Signal 2	9 = V _S SENS													
4 = Signal 3	10 = V _S SENS													
5 = Signal 4	11 = V _S SENS													
6 = Signal 5	12 = GND													
	<p>BL67-B-1M23-PC 6827235 1 x M23, 12-pole, female</p> <p>Comments Possible applications: Control of DE-STA-CO electric power clamps. This base module features a special pin configuration allowing the connection of electric clamps with a standard 12-pole M23 connection cable.</p>	<p>Tel ataması</p>  <table border="0"> <tr> <td>1 = DO 0</td> <td>7 = GND</td> </tr> <tr> <td>2 = DO 1</td> <td>8 = V_I</td> </tr> <tr> <td>3 = DO 2</td> <td>9 = n.c.</td> </tr> <tr> <td>4 = DI 0</td> <td>10 = GND</td> </tr> <tr> <td>5 = DI 1</td> <td>11 = V_O</td> </tr> <tr> <td>6 = n.c.</td> <td>12 = n.c.</td> </tr> </table>	1 = DO 0	7 = GND	2 = DO 1	8 = V _I	3 = DO 2	9 = n.c.	4 = DI 0	10 = GND	5 = DI 1	11 = V _O	6 = n.c.	12 = n.c.
1 = DO 0	7 = GND													
2 = DO 1	8 = V _I													
3 = DO 2	9 = n.c.													
4 = DI 0	10 = GND													
5 = DI 1	11 = V _O													
6 = n.c.	12 = n.c.													

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
DI/DO channels 0...7		OFF	Status channel x = 0 (OFF), no active diagnostics
	GREEN	ON	Status channel x = 1 (ON)
	RED	ON	Short-circuit at output
	RED	FLASHING (2 Hz)	Short-circuit sensor supply

Data mapping

DATA	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	n	-	-	-	-	DI 3	DI 2	DI 1	DI 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
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BL67-B-8M8									
Input	n	-	-	-	-	C3 P4	C2 P4	C1 P4	C0 P4
Output	m	-	-	-	-	C7 P4	C6 P4	C5 P4	C4 P4
BL67-B-4M12									
Input	n	-	-	-	-	C3 P4	C2 P4	C1 P4	C0 P4
Output	m	-	-	-	-	C3 P2	C2 P2	C1 P2	C0 P2
BL67-B-4M12-P									
Input	n	-	-	-	-	C1 P2	C1 P4	C0 P2	C0 P4
Output	m	-	-	-	-	C3 P2	C3 P4	C2 P2	C2 P4
BL67-B-1M23(-VI)									
Input	n	-	-	-	-	C0 P4	C0 P3	C0 P2	C0 P1
Output	m	-	-	-	-	C0 P8	C0 P7	C0 P6	C0 P5
BL67-B-1M23-PC									
Input	n	-	-	-	-	-	-	C0 P5	C0 P4
Output	m	-	-	-	-	-	C0 P3	C0 P2	C0 P1

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