

		CoDeSys-programmable acc. to IEC 61131-3
L	<ul> <li>Cable max. 50 m between interface and read/write head</li> </ul>	
32		10/100 Mbps
77,5	<ul> <li>Male M12 x 1, 4-pin, reverse-keyed, for fieldbus connection</li> </ul>	
		One male 7/8", 5-pin, for power supply
	<ul> <li>LEDs for display of supply voltage,</li> </ul>	
14	group and bus errors as well as status and diagnostics	
		<ul> <li>Connection of up to 2 read/write heads via BL ident M12 extension cables</li> </ul>
		Mixed operation of HF and UHF read/ write heads
Type designation	TI-BL67-PG-EIP-2	Wiring Disgrom
Ident no.	1545069	Wiring Diagram
Number of channels	2	-(
Dimensions (W x L x H)	108 x 145 x 77.5 mm	2
Supply voltage	24 VDC	1 ( ) 3
max. system supply current I	1.3, A	5 4
Max. sensor supply I <sub>sens</sub>	4 A electronically limited current supply electronically limited current supply	
max. load current I。	10 A	Without Function
Admissible range	1830 VDC	-
		2   1 = n.c. 2 = n.c.
Fieldbus transmission rate	10/100 Mbps	$3(\bullet \bullet) 1 = n.c.$
Fieldbus addressing Service interface	rotary switch, BOOTP, DHCP, IO-ASSISTANT RS232 interface (PS/2 socket)	4 = n.c. 4 5 5 = n.c.
Fieldbus connection technology	Female connector, M12 x 1, 4-pin, D-coded	
Voltage supply connection	5-pin male 7/8" connector	Ethernet
PLC data		-(
Programming	CODESYS 2	$\frac{2}{2}$ 1 = YE (TX +)
Released for CODESYS version	V 2.3.9.35	$1 \begin{pmatrix} 2 \\ 2 \\ 3 \\ 3 \end{pmatrix} = WH (RX +)$
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	4 = BU (RX -)
Application tasks	1	•
Number of POUs	1024	
Programming interface	RS232 interface, Ethernet RISC, 32 bit	Power Supply
Processor Cycle time	< 1 ms for 1000 IL commands (without I/O cy-	<b>-</b> -
	cle)	3 1 = GND
Program memory	512	$4 \underbrace{\bigcirc}_{2} 2 = GND$ 3 = PE
Data memory	512	$5  4 = V_{i}$ $5 = V_{o}$
Input data	4	0 – V <sub>0</sub>
Output data	4	
Non-volatile memory	16	
Transmission rate	115.2 kbps	
Cable length	50 m	
Electrical isolation	isolation of electronics and field level via opto- couplers	
Output connectivity	M12	
Sensor supply	0.5 A per channel, short-circuit proof	
Consor Suppry	o.o A per onanner, anor-orour proor	



BL Programmable Set for Ethenet/IP in IP67 TI-BL67-PG-EIP-2



# Operating temperature

Temperature derating > 55 °C Circulating air (Ventilation) > 55 °C Steady ambient air Storage temperature Relative humidity

## Vibration test Extended vibration resistance Extended vibration resistance - up to 5 g (at 10 to 150 Hz)

- up to 20 g (at 10 up to 150 Hz)

Shock test Drop and topple

Electromagnetic compatibility Protection class

Included in delivery

#### -40...+70 °C

1 x end plate BL67

no limitation Isens < 3A, Imb < 1A -40...+85 °C 5 to 95 % (internal), Level RH-2, no condensation (at 45 °C storage) acc. to EN 61131

VN 02-00 and higher for mounting on DIN rail no drilling according to EN 60715, with end bracket for mounting on base plate or machinery Therefore every second module has to be mounted with two screws each. acc. to IEC 68-2-27 acc. to IEC 68-2-31 and free fall to IEC 68-2-32 acc. to EN 61131-2 IP67

## Functional principle

The pin resp. signal assignment results from the combination with an electronic module. You find the pin configuration and the wiring diagrams on the data sheet of the corresponding electronic module.

BL67 base modules are connected to the right of the gateway, using two screws for each module. A DIN rail is not required. This way, a compact and stable unit is built. The unit can now be mounted on a DIN rail or directly on the machine.

The field devices are connected to the base modules which are available with different connection technology (M8, M12, M23 and  $7/8^{\circ}$ ).

#### Note

Further technical data like temperature range are determined by the electronic modules and can be found on the data sheets.

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.

The programmable BL67 gateways can be used as an independent PLC or as a member in a PLC network for fast signal preprocessing.

BL67 gateways are the head component of a BL67 station. The BL67 electronic modules communicate via the internal module bus with the gateway and can be configured independently of the fieldbus protocol.





# Pin configuration and supply concept

CANopen (Master/Slave) The CoDeSys programmable gateways can also be op- erated as CANopen master or as CANopen slave. Both functions are stored in the library and can be loaded to the gateway together with the CoDeSys application. Connected CANopen subscribers are not supplied by the BL67 system. External power supply is required.	Pin Assignment 2 1 = Shield 3 € 1 = RD (n.c.) 3 € 4 1 = BK (V-) 4 = WH (CAN H) 5 = BU (CAN L)
EtherNet/IP <sup>™</sup> Slave The M12-D coded Ethernet port is used as interface for configuration and fieldbus communication. The gateway can be operated as a slave at Plus or PC based systems with EtherNet/IP <sup>™</sup> scanner (master).	Pin Assignment -( 2 1 = YE (TX +) $1 \bigoplus_{4}^{\circ} 3$ 3 = OG (TX -) 4 = BU (RX -)
Power Supply Double-tuned power supply of the BL67 system. System power supply V, V, is for the internal system supply at the backplane bus(V <sub>ME(20)</sub> ) and for the 4A short-circuit limited sensor supply (V <sub>sen</sub> ). Load voltage V, V <sub>o</sub> for output supply, limited to max.10A.	Pin Assignment $ \begin{array}{c}                                     $

3/5





## Compatible base modules

Туре	Pin configuration
BL67-B-2M12 6827186 2 x M12, 5-pole, female, a-coded	/S2500 Connectors $\begin{pmatrix} 2 & 1 = BN (+) \\ 2 = BK (Data) \\ 3 & 3 = BU (GND) \\ 4 = WH (Data) \\ 5 & 4 & 5 = shield \\ \\/S2501 Connectors$ $\begin{pmatrix} 2 & 1 = BN (+) \\ 2 = WH (Data) \\ 3 & 3 = BU (GND) \\ 4 = BK (Data) \\ 5 & 4 & 5 = shield \\ \\ \\ Connectors/S2503 \\ \\ \end{bmatrix}$
	$\begin{array}{c} -C \\ 2 \\ BU \\ 1 \\ 0 \\ 0 \\ 5 \\ 4 \end{array} = \begin{array}{c} RD \\ Data \\ Carbon \\ S \\ \mathsf$





# 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