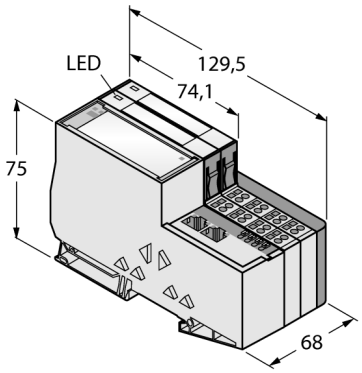
Set in IP20
TI-BL20-E-EN-4



Type designation	TI-BL20-E-EN-4
Ident no.	7030615
Number of channels	4
Dimensions (W x L x H)	68 x 129.5 x 74.4 mm
Rated voltage from the supply terminal	24 VDC
Supply voltage	24 VDC
System power supply	24 VDC / 5 VDC
Field supply	24 VDC
Admissible range	18…30 VDC
Max. field supply current	8
Max. system supply current	0.4
Service interface	Ethernet
Voltage supply connection	Push-in terminals
Transmission rate	115.2 kbps
Electrical isolation	Electronics and field level isolated via opto-couplers
Output connectivity	Screw, tension spring
Sensor supply	0.25 A per channel, short-circuit proof
Number of diagnostics bytes	4
Number of parameter bytes	8
Number of input bytes	4
Number of output bytes	4
Relative humidity	15…95 %, no condensation allowed
Vibration test	Acc. to EN 61131
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 50082-2
Protection class	IP20
Included in delivery	2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL

- **Connection of up to 4 read/write heads via BLident ® M12 extension cables**
- **Mixed operation of HF and UHF read/ write heads**

Functional principle

BL20 gateways are the head component of a BL20 station. They are designed to interface the modular fieldbus nodes to the higher level fieldbus (PROFIBUS-DP, DeviceNet, CANopen, Ethernet).

All BL20 electronic modules communicate over the internal module bus, the data of which is transferred to the fieldbus via the gateway, so that all I/O modules can be configured independently of the bus system.

Pin configuration i.e.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.

The base modules are connected to the field devices via screw connections or tension spring connections.

Note

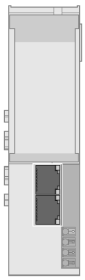
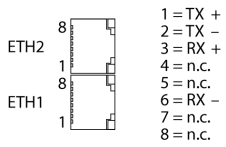
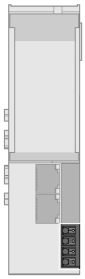
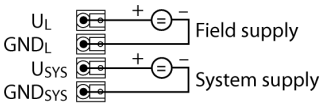
Further technical data, like for example the temperature range, are determined by the electronic modules and can be found on the data sheets.

BL20 electronic modules are plugged into the purely passive base modules which are used for connection of field devices. Maintenance is significantly facilitated due to separation of the connection level from the module electronics. Furthermore flexibility is enhanced because the base modules provide a choice of tension spring or screw connection technology.

The electronic modules are completely independent of the type of higher level field bus through the use of gateways.

Edition • 2023-10-31T15:03:59+01:00

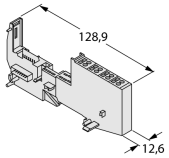
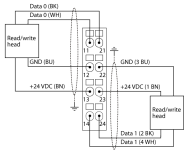
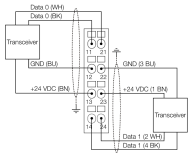
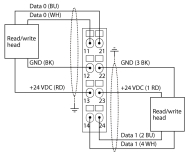
Anschlussübersicht

	Ethernet Fieldbus cable (example): RJ45S-RJ45S-441-2M (ident no. 6932517) or RJ45-FKSDD-441-0,5M/S2174 (ident no. 6914221)	Pin Assignment 
	Power Supply The U_{SYS} system supply feeds power to the gateway and the I/O modules. The U_L field supply feeds power to the sensors and actuators.	Pin Assignment 

Edition • 2023-10-31T15:03:59+01:00

Set in IP20
TI-BL20-E-EN-4

Compatible base modules

Dimension drawing	Type	Pin configuration
	BL20-S4T-SBBS 6827046 Tension spring connection BL20-S4S-SBBS 6827047 Screw connection	…/S2500 Connectors  …/S2501 Connectors  Connectors …/S2503 

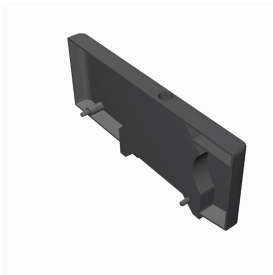
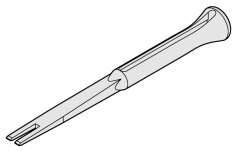
Edition • 2023-10-31T15:03:59+01:00

LED Displays

LED	Color	Status	Meaning
D		OFF	No error message or diagnostics active.
	RED	ON	Failure of module bus communication. Check if more than two adjacent electronic modules are pulled. Relevant modules are located between the gateway and this module.
	RED	FLASHING (0.5 Hz)	Pending 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

Edition • 2023-10-31T15:03:59+01:00

Accessories

Type code	Ident no.		Dimension drawing
BL20-ABPL (2 PCS.)	6827123	End plate for a BL20 station after the last I/O module (2 pieces)	
BL20-WEW-35/2-SW (10 PCS.)	6827124	End bracket for fixation of a BL20 station (10 pieces)	
ZBW5-2BETÄTIGUNGSWERKZEUG	6827129	Tension spring tool	

Edition • 2023-10-31T15:03:59+01:00

 Hans Turck GmbH & Co.KG ● D-45472 Mülheim an der Ruhr ● Witzlebenstraße 7 ● Tel. 0208 4952-0 ● Fax 0208 4952-264 ● more@turck.com ● www.turck.com