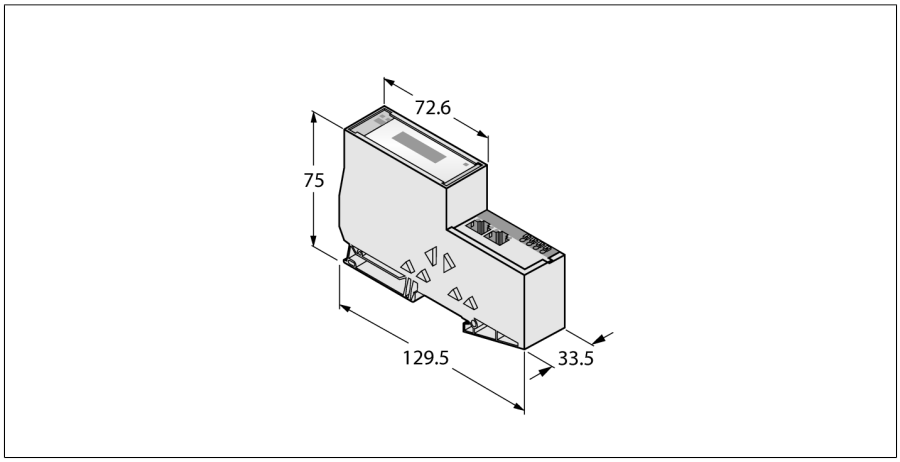
Gateway for the BL20 I/O System
Multiprotocol Interface for Ethernet
BL20-E-GW-EN



Type	BL20-E-GW-EN
ID	6827329

Supply voltage	24 VDC
System power supply	24 VDC / 5 VDC
Field supply	24 VDC
Admissible range	18…30 VDC
Nominal current from module bus	≤ 200 mA
Max. field supply current	8 A
Max. system supply current	0.4 A
Voltage supply connection	Push-in terminals

System data	
Max. number of I/O modules	31
Transmission rate	10/100 Mbps; full/half duplex; auto negotiation; auto crossing
Connection technology Ethernet	2 × RJ45 female connector
Protocol detection	automatic
Web server	192.168.1.254 (Default)
Service interface	Ethernet

Modbus TCP	
Addressing	Static IP, DHCP
Supported function codes	FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
Number of TCP connections	8
Input register start address	0 (0x0000 hex)
Output register start address	2048 (0x0800 hex)

Ethernet/IP	
Addressing	acc. to EtherNet/IP specification
Quick Connect (QC)	< 500 ms
Device Level Ring (DLR)	supported
Class 1 connections (CIP)	8

- Protection class IP20
- 2 x end brackets BL20-WEW35/2-SW
- 1 x end plate BL20-ABPL
- LEDs for display of supply voltage, group and bus errors
- Multiprotocol gateway between the BL20 system and the Ethernet protocols Modbus TCP, EtherNet/IP™ and PROFINET (from VN 03-00)
- PROFINET supports fast start-up (FSU)
- EtherNet/IP™ supports QuickConnect (QC)
- Integrated switch 10/100 Mbps
- Two RJ45 ports for fieldbus connection
- Push-in terminals for connection of power supply

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.

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PROFINET	
Addressing	DCP
Conformance class	B (RT)
MinCycleTime	1 ms
Fast Start-Up (FSU)	< 500 ms
Diagnostics	acc. to PROFINET alarm handling
Topology detection	supported
Automatic addressing	supported
Media Redundancy Protocol (MRP)	supported

Dimensions (W x L x H)	33.5 x 129.5 x 74.4 mm
Approvals	CE, cULus, zone 2, Class I, Div. 2
Ambient temperature	0…+55 °C
Storage temperature	-25…+85 °C
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 60068-2-31
Electromagnetic compatibility	Acc. to EN 61131-2
Protection class	IP20
MTTF	328 years acc. to SN 29500 (Ed. 99) 20 °C

Included in delivery	2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL

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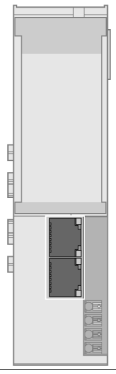
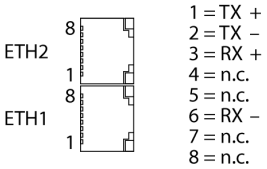
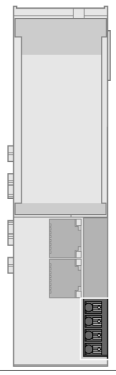
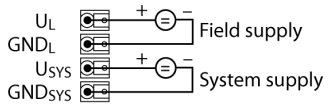
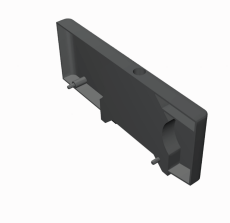
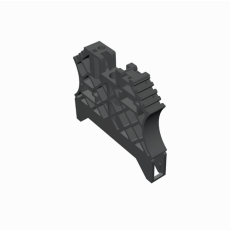
Anschlussübersicht

	**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 

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)	

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