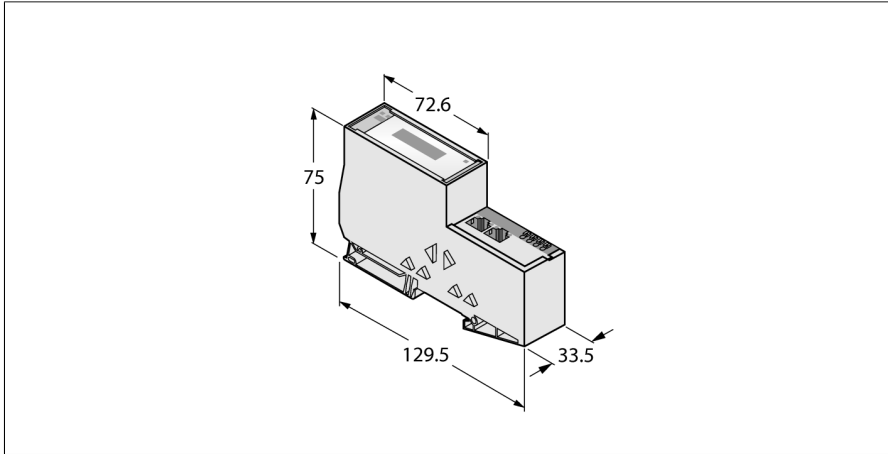


# Gateway for the BL20 I/O System

## Multiprotocol Interface for Ethernet

### BL20-E-GW-EN



- 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

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

#### 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.

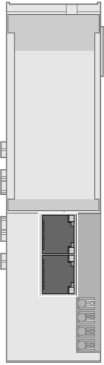
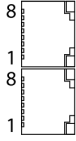
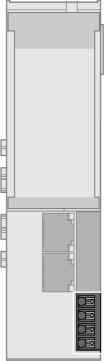
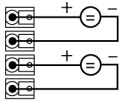
<b>System data</b>	
Max. number of I/O modules	31
Transmission rate	10/100 Mbps; full/half duplex; auto negotiation; auto crossing
Connection technology Ethernet	2 × RJ45 female connector
Protocol detection	automatic
Web server	192.168.1.254 (Default)
Service interface	Ethernet

<b>Modbus TCP</b>	
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)


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

<b>PROFINET</b>	
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
<b>Dimensions (W x L x H)</b>	
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 68-2-31 and free fall to IEC 68-2-32
Electromagnetic compatibility	Acc. to EN 50082-2
Protection class	IP20
MTTF	328 years acc. to SN 29500 (Ed. 99) 20 °C
<b>Included in delivery</b>	
Included in delivery	2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL

## Anschlussübersicht

	<p><b>Ethernet</b></p> <p>Fieldbus cable (example):          RJ45S-RJ45S-441-2M (ident no. 6932517) or          RJ45-FKSD-441-0,5M/S2174 (ident no. 6914221)</p>	<p>Pin Assignment</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>ETH2</p> <p>8</p> <p>1</p> <p>ETH1</p> <p>8</p> <p>1</p> </div>  <div style="margin-left: 20px;"> <p>1 = TX +</p> <p>2 = TX -</p> <p>3 = RX +</p> <p>4 = n.c.</p> <p>5 = n.c.</p> <p>6 = RX -</p> <p>7 = n.c.</p> <p>8 = n.c.</p> </div> </div>
	<p><b>Power Supply</b></p> <p>The <math>U_{SYS}</math> system supply feeds power to the gateway and the I/O modules.</p> <p>The <math>U_L</math> field supply feeds power to the sensors and actuators.</p>	<p>Pin Assignment</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p><math>U_L</math></p> <p><math>GND_L</math></p> <p><math>U_{SYS}</math></p> <p><math>GND_{SYS}</math></p> </div>  <div style="margin-left: 20px;"> <p>Field supply</p> <p>System supply</p> </div> </div>

## 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)	