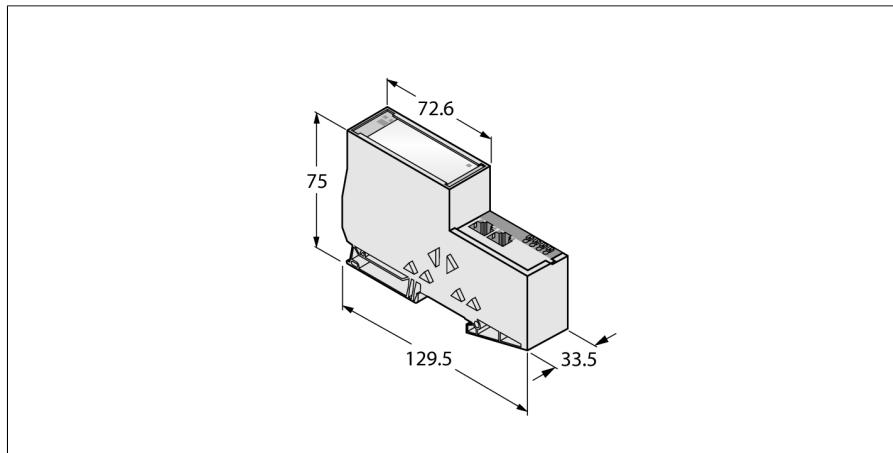


# Gateway for the BL20 I/O System

## Interface for EtherCAT — Second Generation

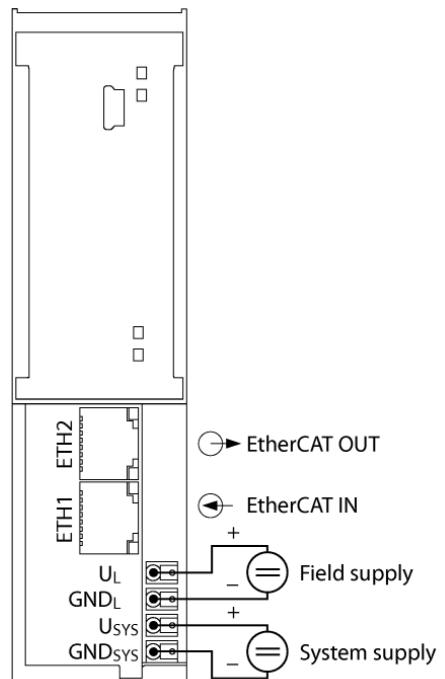
### BL20-E-GW-EC-20



Type	BL20-E-GW-EC-20
ID	100037881
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	0.7 A
Voltage supply connection	Push-in terminals
System data	
Max. number of I/O modules	32
Transmission rate	10/100 Mbps; full/half duplex; auto negotiation; auto crossing
Connection technology Ethernet	2 × RJ45 female connector
Service interface	Micro USB
EtherCAT	
Address allocation	automatic
MinCycleTime	125 µs
Diagnostics	CoE Emergencies, DiagnosisHistory
CAN over EtherCAT	acc. to modular device profile (ETG.5001.1)
Dimensions (W x L x H)	33.5 x 129.5 x 74.4 mm
Approvals	CE, cULus
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
Included in delivery	2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL

- 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
- Gateway between the BL20 system and EtherCAT
- Modular Device Profile (MDP) supported
- 10/100 Mbps, Auto MDIX
- 2 × RJ45 female connectors

#### Field/System 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.

## Connection overview

	<p><b>EtherCAT</b> Fieldbus cable (example): RJ45S-RJ45S-441-2M (ID 6932517) or RJ45-FKSDD-441-0.5M/S2174 (ID 6914221)</p>	<p>Pin assignment</p> <table border="1"> <tr> <td>XF2 EC OUT</td> <td>8</td> <td>1</td> <td>2 = TX -</td> </tr> <tr> <td></td> <td></td> <td>8</td> <td>3 = RX +</td> </tr> <tr> <td></td> <td></td> <td>1</td> <td>4 = n.c.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5 = n.c.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>6 = RX -</td> </tr> <tr> <td></td> <td></td> <td></td> <td>7 = n.c.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>8 = n.c.</td> </tr> </table>	XF2 EC OUT	8	1	2 = TX -			8	3 = RX +			1	4 = n.c.				5 = n.c.				6 = RX -				7 = n.c.				8 = n.c.
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	<p><b>Power Supply</b> The <math>U_{sys}</math> system supply feeds power to the gateway and the I/O modules. The <math>U_L</math> field supply feeds power to the sensors and actuators.</p>	<p>Pin assignment</p> <table border="1"> <tr> <td><math>U_L</math></td> <td>+</td> <td>-</td> <td>Field supply</td> </tr> <tr> <td>GND<sub>L</sub></td> <td>+</td> <td>-</td> <td></td> </tr> <tr> <td><math>U_{SYS}</math></td> <td>+</td> <td>-</td> <td>System supply</td> </tr> <tr> <td>GND<sub>SYS</sub></td> <td>+</td> <td>-</td> <td></td> </tr> </table>	$U_L$	+	-	Field supply	GND <sub>L</sub>	+	-		$U_{SYS}$	+	-	System supply	GND <sub>SYS</sub>	+	-													
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**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)	