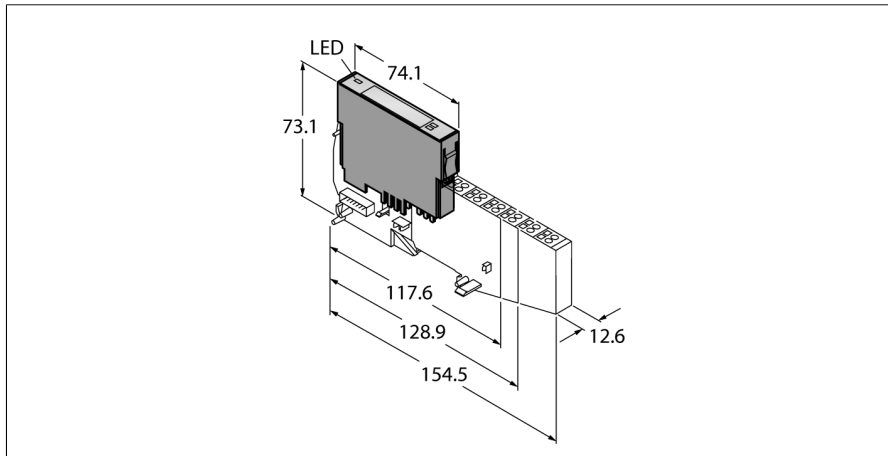


## BL20 Electronic Module

### 2 RFID Channels (HF/UHF)

### BL20-2RFID-S



- Fieldbus and connection technology independent
- A special software (function module) for integration in PLC systems is not required.
- 8 byte user data per read/write cycle
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- Connection of two BL ident read/write heads (HF or UHF)
- Mixed operation of HF and UHF read/write heads
- Transmission rate: 115.2 kbps
- Cable length max. 50 m

<b>Type designation</b>	BL20-2RFID-S
Ident no.	6827306
<b>Number of channels</b>	2
Rated voltage from the supply terminal	24 VDC
Nominal current from field supply	≤ 100 mA
Nominal current from module bus	≤ 30 mA
Power dissipation, typical	≤ 1 W
<b>Transmission rate</b>	115.2 kbps
Cable length	50 m
Electrical isolation	Electronics and field level isolated via optocouplers
<b>Output connectivity</b>	Screw, tension spring
<b>Sensor supply</b>	0.25 A per channel, short-circuit proof
<b>Number of diagnostics bytes</b>	4
Number of parameter bytes	8
Number of input bytes	24
Number of output bytes	24
<b>Dimensions (W x L x H)</b>	12.6 x 74.1 x 55.4 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	242 years acc. to SN 29500 (Ed. 99) 40 °C

#### Functional principle

BL ident can be integrated into your plant structure in many different ways.

Various fieldbus standards such as PROFIBUS-DP, EtherNet/IP, Ethernet Modbus TCP, DeviceNet, CANopen und PROFINET IO enable a flexible integration.

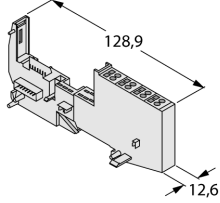
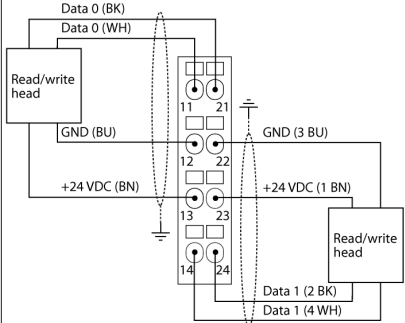
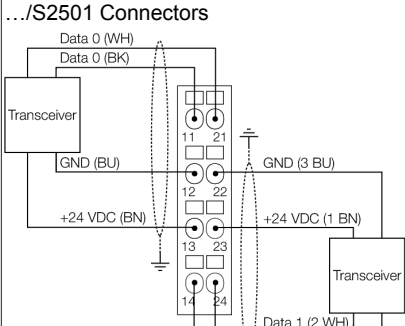
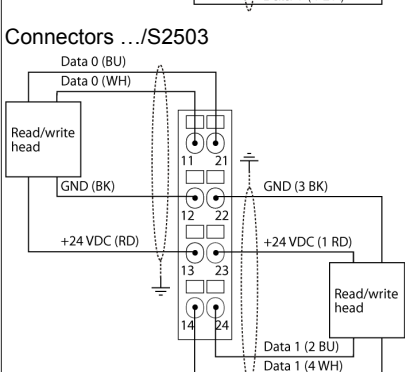
BL ident simple electronic modules (BL20-2RFID-S, BL67-2RFID-S) can be integrated into existing control or host systems without function block, since standard input/output process data is used for communication.

Programmable gateways with peripheral pre-processing function to relieve the higher-level control and bus system.

Preassembled sets (2, 4, 6 or 8-port), easily mounted, available for all fieldbus networks.

**BL20 Electronic Module  
2 RFID Channels (HF/UHF)  
BL20-2RFID-S**

**Compatible base modules**

Dimension drawing	Type	Pin configuration
	<p><b>BL20-S4T-SBBS</b> 6827046 Tension spring connection</p> <p><b>BL20-S4S-SBBS</b> 6827047 Screw connection</p>	<p><b>.../S2500 Connectors</b></p>  <p><b>.../S2501 Connectors</b></p>  <p><b>Connectors .../S2503</b></p> 

## BL20 Electronic Module

### 2 RFID Channels (HF/UHF)

### BL20-2RFID-S

#### LED display

LED	Color	Status	Meaning
D		OFF	Error report or diagnostics active.
	RED	ON	Failure of MODBUS 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

#### Compatible gateways

ID	Type	Communication	Version and higher	Application
6827234	BL20-GW-DPV1	PROFIBUS-DP	FW 1.11	PLC systems with PROFIBUS-DP master. Neither acyclic services nor function modules are required.
6827168	BL20-GWBR-DNET	DeviceNet	FW 6.02	PLC systems with DeviceNet scanner (master).
6827167	BL20-GWBR-CANOPEN	CANopen	FW 3.02	PLC systems with CANopen master. Neither special services nor function modules are required.

#### Compatible economy gateways

ID	Type	Communication	Version and higher	Application
6827250	BL20-E-GW-DP	PROFIBUS-DP	FW 1.12	PLC systems with PROFIBUS-DP master. DPV1 services are not required.
6827301	BL20-E-GW-DN	DeviceNet	FW 1.16	PLC systems with DeviceNet scanner (master).
6827252	BL20-E-GW-CO	CANopen	FW 2.00	PLC systems with CANopen master. Neither special services nor function modules are required.
6827329	BL20-E-GW-EN	Modbus TCP PROFINET EtherNet/IP	FW 1.0.0.1	PLC systems with Modbus TCP master or PC-based solutions using a Modbus driver software. PLC systems with EtherNet/IP scanner (master). PLC systems with PROFINET master.
6827380	BL20-E-GW-EC	EtherCAT	FW 1.1.1.0	PLC systems with EtherCAT master.
6827381	BL20-E-GW-RS-MB/ET	Modbus RTU/ASCII	FW 1.1.1.0	PLC systems with Modbus RTU/ASCII master.

#### Compatible CODESYS V3 programmable gateways

ID	Type	Communication	Version and higher	Application
6827393	BL20-PG-EN-V3	Modbus TCP PROFINET EtherNet/IP	FW V1.0.7.0	PLC systems with Modbus TCP master or PC-based solutions using a Modbus driver software. PLC systems with EtherNet/IP scanner (master). PLC systems with PROFINET master.
6827398	BL20-PG-EN-V3-WV	Modbus TCP PROFINET EtherNet/IP	FW 1.0.7.0	PLC systems with Modbus TCP master or PC-based solutions using a Modbus driver software. PLC systems with EtherNet/IP scanner (master). PLC systems with PROFINET master.

# BL20 Electronic Module

## 2 RFID Channels (HF/UHF)

### BL20-2RFID-S

#### I/O Data Mapping

INPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	
Channel 0	0	DONE	BUSY	ERROR	XCVR CON	XCVR ON	TP	TFR	Reserved	
	1	Error Code								
	2	Error Code 1								
	3	Reserved								
	4	READ DATA (8 Byte)								
	5									
	...									
	10									
	11									
	Channel 1	12	DONE	BUSY	ERROR	XCVR CON	XCVR ON	TP	TFR	Reserved
		13	Error Code							
14		Error Code 1								
15		Reserved								
16		READ DATA (8 Byte)								
17										
...										
22										
23										
OUTPUT		BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Channel 0	0	XCVR	NEXT	TAG ID	READ	WRITE	TAG INFO	XCVR INFO	RESET	
	1	Reserved						Byte Count 2	Byte Count 1	Byte Count 0
	2	Address high byte								
	3	Address low byte								
	4	WRITE DATA (8 Byte)								
	5									
	...									
	10									
	11									
	Channel 1	12	XCVR	NEXT	TAG ID	READ	WRITE	TAG INFO	XCVR INFO	RESET
13		Reserved						Byte Count 2	Byte Count 1	Byte Count 0
14		Address high byte								
15		Address low byte								
16		WRITE DATA (8 Byte)								
17										
...										
22										
23										

**BL20 Electronic Module  
2 RFID Channels (HF/UHF)  
BL20-2RFID-S**

**Accessories**

Type code	Ident no.		Dimension drawing
ZBW5-2BETÄTIGUNGSWERKZEUG	6827106	Tension spring tool	