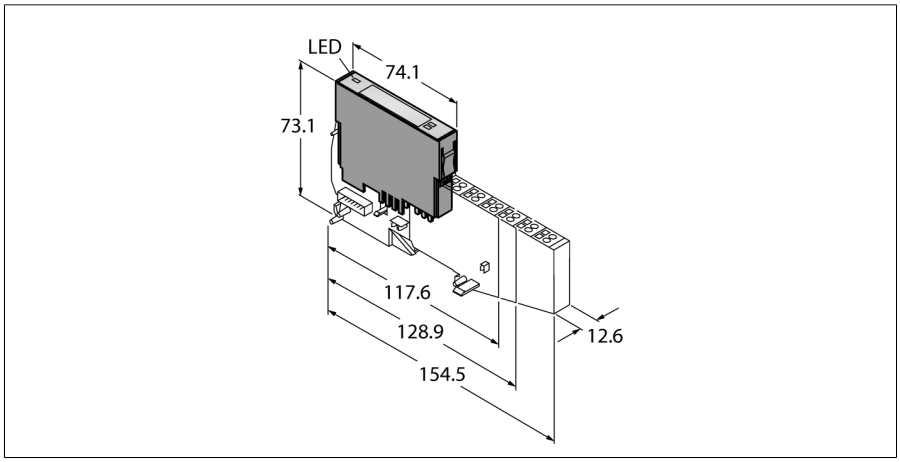
BL20 Electronic Module
2 RFID Channels (HF/UHF)
BL20-2RFID-A



Type	BL20-2RFID-A
ID	6827233
Number of channels	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
Transmission rate	115.2 kbps
Cable length	50 m
Electrical isolation	Electronics and field level isolated via optocouplers
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
Dimensions (W x L x H)	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 60068-2-31
Electromagnetic compatibility	Acc. to EN 61131-2
Protection class	IP20
MTTF	242 years acc. to SN 29500 (Ed. 99) 40 °C

- Fieldbus and connection technology independent
- Protection class IP20
- 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

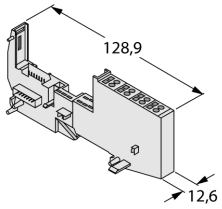
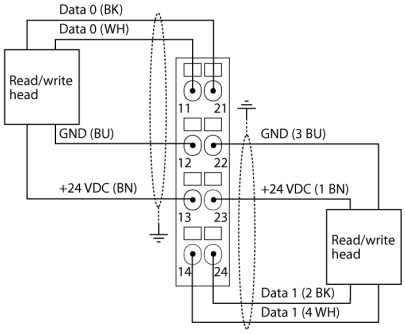
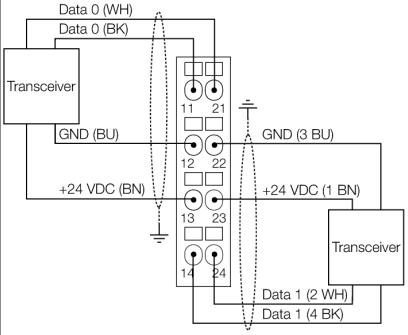
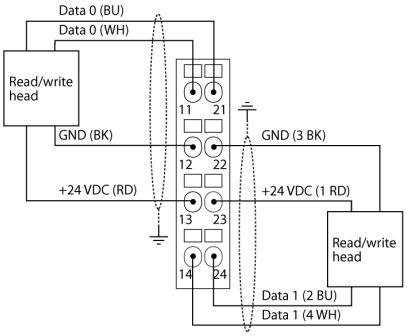
Functional principle

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 • 2025-02-26T14:17:22+01:00

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 • 2025-02-26T14:17:22+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

Compatible gateways

ID	Type	Communication	Version and higher	Application
6827234	BL20-GW-DPV1	PROFIBUS-DP	FW 1.11	Siemens PLC systems with PROFIBUS-DP master. Acyclic services and function blocks are not required.

Compatible economy gateways

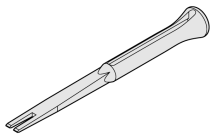
ID	Type	Communication	Version and higher	Application
6827250	BL20-E-GW-DP	PROFIBUS-DP	FW 1.12	Siemens PLC systems with PROFIBUS-DP master. DPV1 services are not required.
6827329	BL20-E-GW-EN	Modbus TCP PROFINET EtherNet/IP	FW 1.0.0.1	Siemens PLC systems with PROFINET master. (Modbus TCP and EtherNet/IP are not supported by the BL20-2RFID-A)

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.

Edition • 2025-02-26T14:17:22+01:00

Accessories

Type code	Ident no.		Dimension drawing
ZBW5-2BETÄTIGUNGSWERKZEUG	6827126	Tension spring tool	

Edition • 2025-02-26T14:17:22+01:00