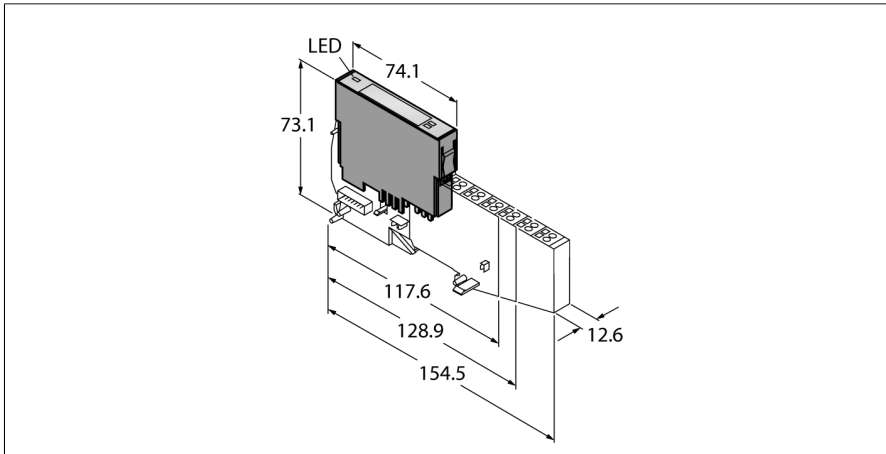


BL20 Electronic Module 2 RFID Channels (HF/UHF) BL20-2RFID-S



| | |
|--|---|
| Type | BL20-2RFID-S |
| ID | 6827306 |
| 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 | 24 |
| Number of output bytes | 24 |
| 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 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 |

- 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

Functional principle

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

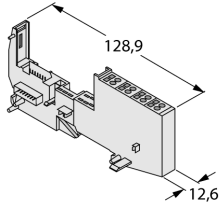
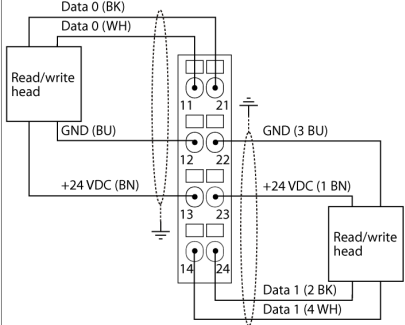
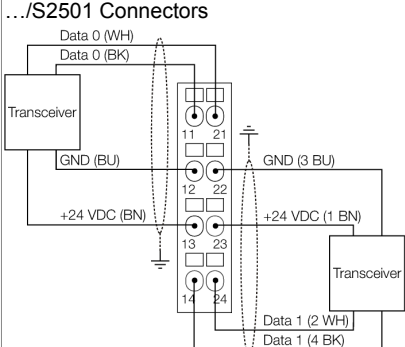
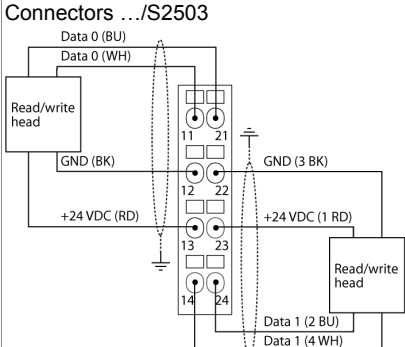
Various fieldbus standards such as PROFIBUS-DP, EtherNet/IP, Ethernet Modbus TCP, DeviceNet, CANopen und PROFINET IO enable a flexible integration.

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.

Compatible base modules

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

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. |

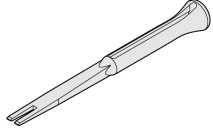
Compatible CODESYS V3 programmable gateways

| 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. |

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 |
| 14 | | Address high byte | | | | | | | | |
| 15 | | Address low byte | | | | | | | | |
| 16 | | WRITE DATA (8 Byte) | | | | | | | | |
| 17 | | | | | | | | | | |
| ... | | | | | | | | | | |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | | | |

Accessories

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