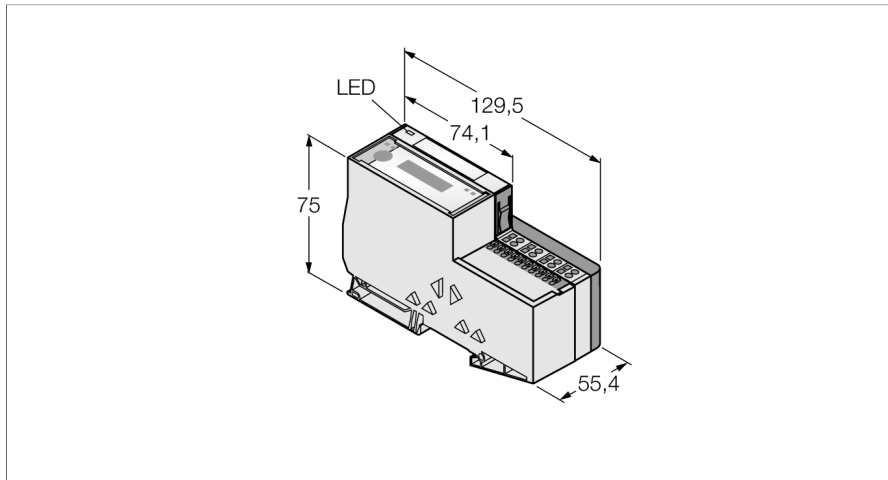


Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20 TI-BL20-E-DPV1-S-2



- A special software (function module) for integration in PLC systems is not required.
- Cable max. 50 m between interface and read/write head
- 2 decimal rotary coding switches for the adjustment of the Profibus address
- Maximum transmission rate to the fieldbus 12 Mbps
- Sub-D female, 9-pin, for fieldbus connection
- Screw terminals for voltage supply
- LEDs for display of supply voltage, group and bus errors as well as status and diagnostics
- Connection of up to 2 read/write heads via BL ident extension cables
- Mixed operation of HF and UHF read/write heads

| | |
|---|--|
| Type designation | TI-BL20-E-DPV1-S-2 |
| Ident no. | 1545126 |
| Number of channels | 2 |
| Dimensions (W x L x H) | 55.4 x 129.5 x 75 mm |
| Rated voltage from the supply terminal | 24 VDC |
| Supply voltage | 24 VDC |
| System power supply | 24 VDC / 5 VDC |
| Field supply | 24 VDC |
| Admissible range | 18...30 VDC |
| Max. field supply current | 8 |
| Max. system supply current | 1 |
| Fieldbus transmission rate | 9.6 kbps ... 12 Mbps |
| Fieldbus address range | 1...126 |
| Fieldbus addressing | via DIP switch |
| Service interface | PS/2 socket |
| Fieldbus connection technology | Push-in clamps |
| Voltage supply connection | Push-in terminals |
| Fieldbus termination | via DIP switch |
| Transmission rate | 115.2 kbps |
| Electrical isolation | Electronics and field level isolated via opto-couplers |
| Output connectivity | Screw, tension spring |
| Sensor supply | 0.25 A per channel, short-circuit proof |
| Number of diagnostics bytes | 3 |
| Number of diagnostics bytes | 4 |
| Number of parameter bytes | 5 |
| Number of parameter bytes | 8 |
| Number of input bytes | 24 |
| Number of output bytes | 24 |
| 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 |
| Included in delivery | 2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL |

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, EtherCAT, DeviceNet, CANopen and PROFINET IO allow flexible integration.


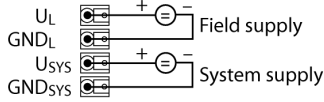

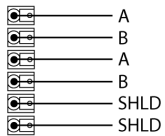
BL ident simple electronic modules (BL20-2RFID-S, BL67-2RFID-S) can be integrated into existing control or host systems without function block, since standard input/output process data is used for communication.

Programmable gateways with peripheral pre-processing function relieve the control system and fieldbus level.

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

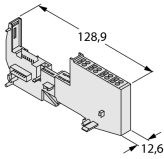
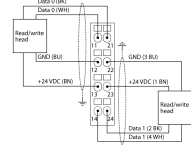
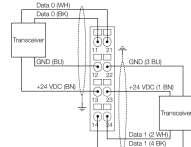
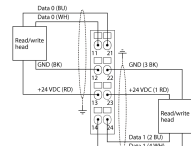
**Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20
TI-BL20-E-DPV1-S-2**

Anschlussübersicht

| | | |
|---|---|--|
|  | <p>Power Supply The U_{SYS} system supply feeds power to the gateway and the I/O modules. The U_L field supply feeds power to the sensors and actuators.</p> | <p>Pin Assignment</p>  |
|  | <p>PROFIBUS-DP Fieldbus cable (example): D9T451-2M (ident no. 6915759) or RSSW-451-2M (ident no. 6914229)</p> | <p>Pin Assignment</p>  |

Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20 TI-BL20-E-DPV1-S-2

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>Pin configuration</p> <p>.../S2500 Connectors</p>  <p>.../S2501 Connectors</p>  <p>Connectors .../S2503</p>  |

Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20 TI-BL20-E-DPV1-S-2

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 |

Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20

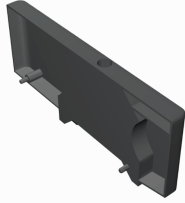

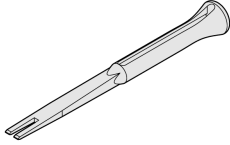
TI-BL20-E-DPV1-S-2

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 | | | | | | | | | | |

**Economy Set for Simple I/O Communication via PROFIBUS-DP in IP20
TI-BL20-E-DPV1-S-2**

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) |  |
| ZBW5-2BETÄTIGUNGSWERKZEUG | 6827125 | Tension spring tool |  |