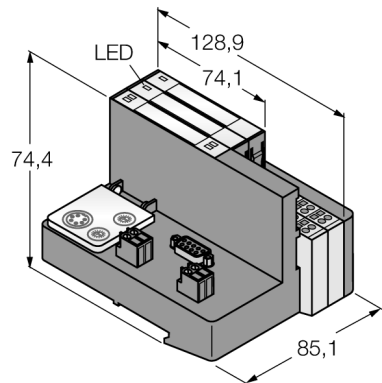


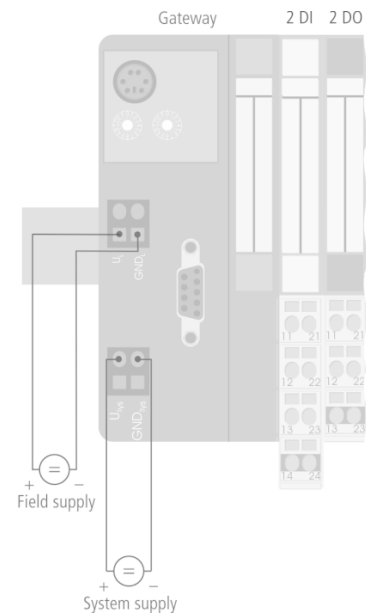
## Profibus-DPV1 Set in IP20

### TI-BL20-DPV1-4



- 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 4 read/write heads via BL ident extension cables
- Mixed operation of HF and UHF read/write heads

#### Field/System Supply



#### Functional principle

Pin configuration i.e. signal assignment results from the combination with an electronic module. You find the pin configuration and the wiring diagrams on the data sheet of the corresponding electronic module.

The base modules are connected to the field devices via screw connections or tension spring connections.

#### Note

Further technical data, like for example the temperature range, are determined by the electronic modules and can be found on the data sheets.

|                                               |                                                            |
|-----------------------------------------------|------------------------------------------------------------|
| <b>Type designation</b>                       | TI-BL20-DPV1-4                                             |
| Ident no.                                     | 1545005                                                    |
| Number of channels                            | 4                                                          |
| Dimensions (W x L x H)                        | 85.1 x 128.9 x 74.4 mm                                     |
| <b>Rated voltage from the supply terminal</b> | 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                     | 10                                                         |
| Max. system supply current                    | 1.2                                                        |
| <b>Fieldbus transmission rate</b>             | 9.6 kbps ... 12 Mbps                                       |
| Fieldbus address range                        | 1...99                                                     |
| Fieldbus addressing                           | 2 rotary switches                                          |
| Service interface                             | PS/2 socket                                                |
| Fieldbus connection technology                | 1 x female sub-D connector                                 |
| Voltage supply connection                     | Screw terminals                                            |
| Fieldbus termination                          | External                                                   |
| <b>Transmission rate</b>                      | 115.2 kbps                                                 |
| Electrical isolation                          | Electronics and field level isolated via opto-couplers     |
| <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 diagnostics bytes                   | 3                                                          |
| Number of parameter bytes                     | 8                                                          |
| Number of parameter bytes                     | 5                                                          |
| Number of input bytes                         | 4                                                          |
| Number of output bytes                        | 4                                                          |
| <b>Relative humidity</b>                      | 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                                                       |
| <b>Included in delivery</b>                   | 2 x end brackets BL20-WEW-35/2-SW, 1 x end plate BL20-ABPL |

## Profibus-DPV1 Set in IP20 TI-BL20-DPV1-4

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.

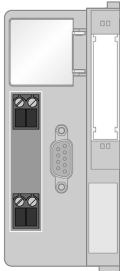
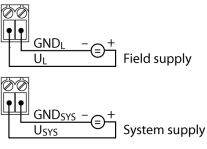
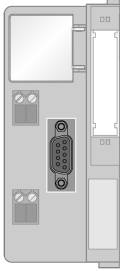
The electronic modules are completely independent of the type of higher level field bus through the use of gateways.

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.

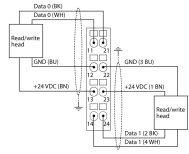
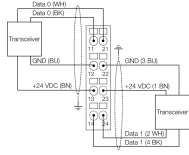
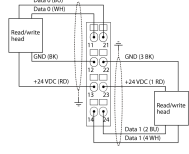
Profibus-DPV1 Set in IP20  
TI-BL20-DPV1-4

Anschlussübersicht

|                                                                                   |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Power Supply</b></p> <p>The U<sub>SYS</sub> system supply feeds power to the gateway and the I/O modules.</p> <p>The U<sub>L</sub> field supply feeds power to the sensors and actuators.</p> | <p><b>Pin Assignment</b></p>  <p>Field supply</p> <p>System supply</p>                                                                                              |
|  | <p><b>PROFIBUS-DP</b></p> <p>Fieldbus cable (example):<br/>D9T451-2M (ident no. 6915759) or<br/>RSSW-D9T451-2M (ident no. 6915779)</p>                                                              | <p><b>Pin Assignment</b></p>  <p>1 = shield<br/>2 = n.c.<br/>3 = RD (Bus B)<br/>4 = n.c.<br/>5 = GND<br/>6 = 5 VDC<br/>7 = n.c.<br/>8 = GN (Bus A)<br/>9 = n.c.</p> |

# Profibus-DPV1 Set in IP20 TI-BL20-DPV1-4

## Compatible base modules

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

## Profibus-DPV1 Set in IP20

### TI-BL20-DPV1-4

#### 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                                                                                                                   |

**Profibus-DPV1 Set in IP20**  
**TI-BL20-DPV1-4**

**Accessories**

| Type code                 | Ident no. |                     | Dimension drawing                                                                   |
|---------------------------|-----------|---------------------|-------------------------------------------------------------------------------------|
| ZBW5-2BETÄTIGUNGSWERKZEUG | 6721122   | Tension spring tool |  |