



## Sensor Interface EEx type 6728-10

- Detection of residual quantity
- Recognizing of products
- Identification of tanks



### Application

The sensor-interface EEx serves as an interface between intrinsically safe sensors for residual quantity, product, tank-/nose identification and an superior unit (Controllers of the system PETRODAT 3002) via the field bus P-NET.

Up to 32 sensors with digital exit signals can be connected.

The system capacity with the system PETRODAT 3002 permits its almost unlimited use in the control, supervision and automation of processes.

### Function

The selection of the connected sensors is carried out by an integrated microprocessor in multiplex procedure.

The signals of the sensors are read in at the corresponding data input. Activation and deactivation of the individual sensor is performed by switching the power supply voltage on and/or off. In this way, data of all connected sensors are acquired in a time sequence.

Function losses (short circuits, interruptions...) are recognized of the interface.

The data lines of all sensors in a group (residual quantity identity, tank-/ASS-identity) may be interconnected.

### Features

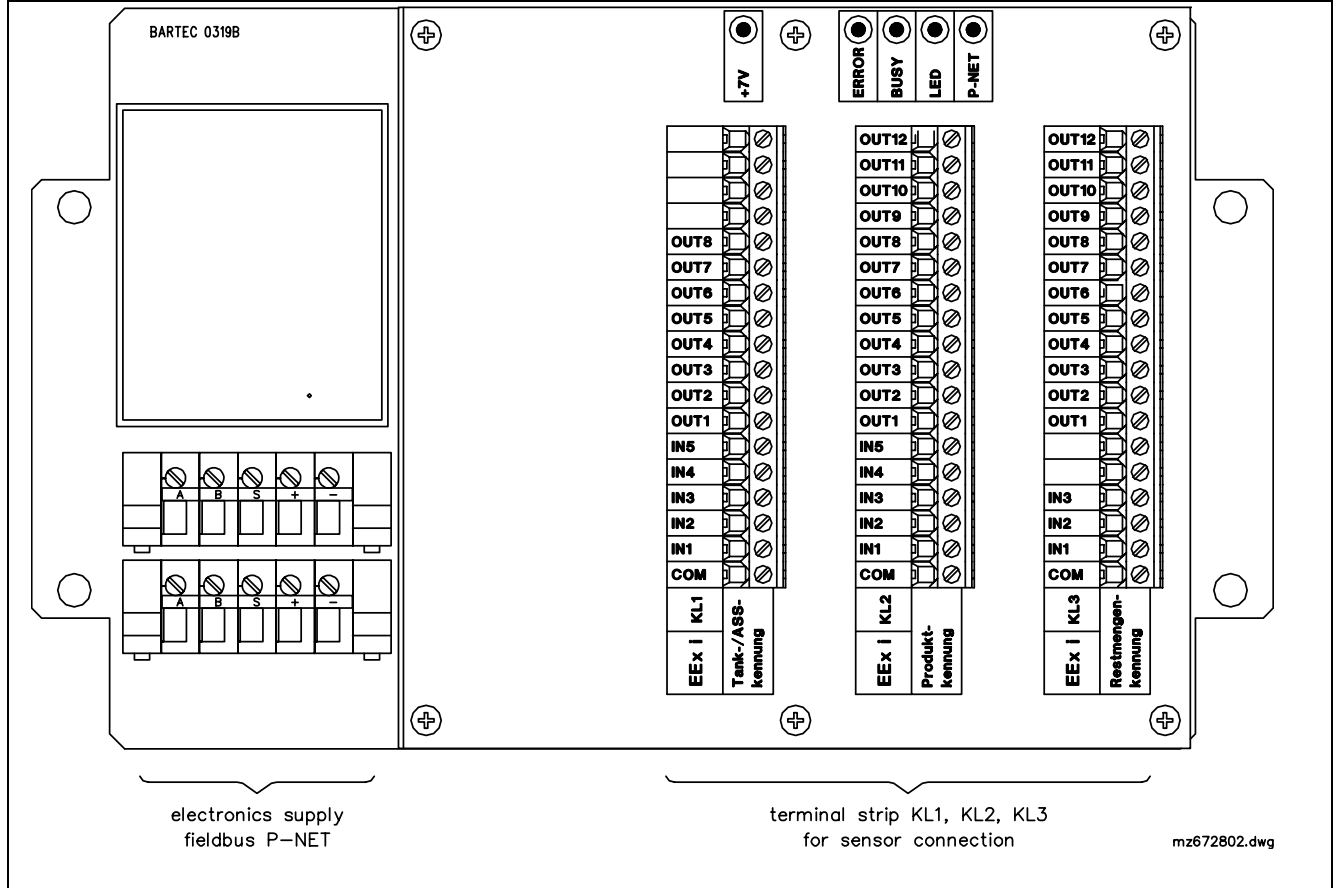
- Use in hazardous locations classified to zone 1 type of protection EEx em [ib/ia] IIB T4 devices group/-category II (1) 2 G.
- Actuating of up to 32 sensors.
- Galvanically separated intrinsically safe circuits of the category „ia“ for zone 0.
- Permanent function inspection (short circuit-detection, interruption-detection, ...) of the sensors.
- Field bus P-NET EN 50170-1 and IEC 61158.
- Fail-safe-function (integrated Watchdog-function).

### Admission

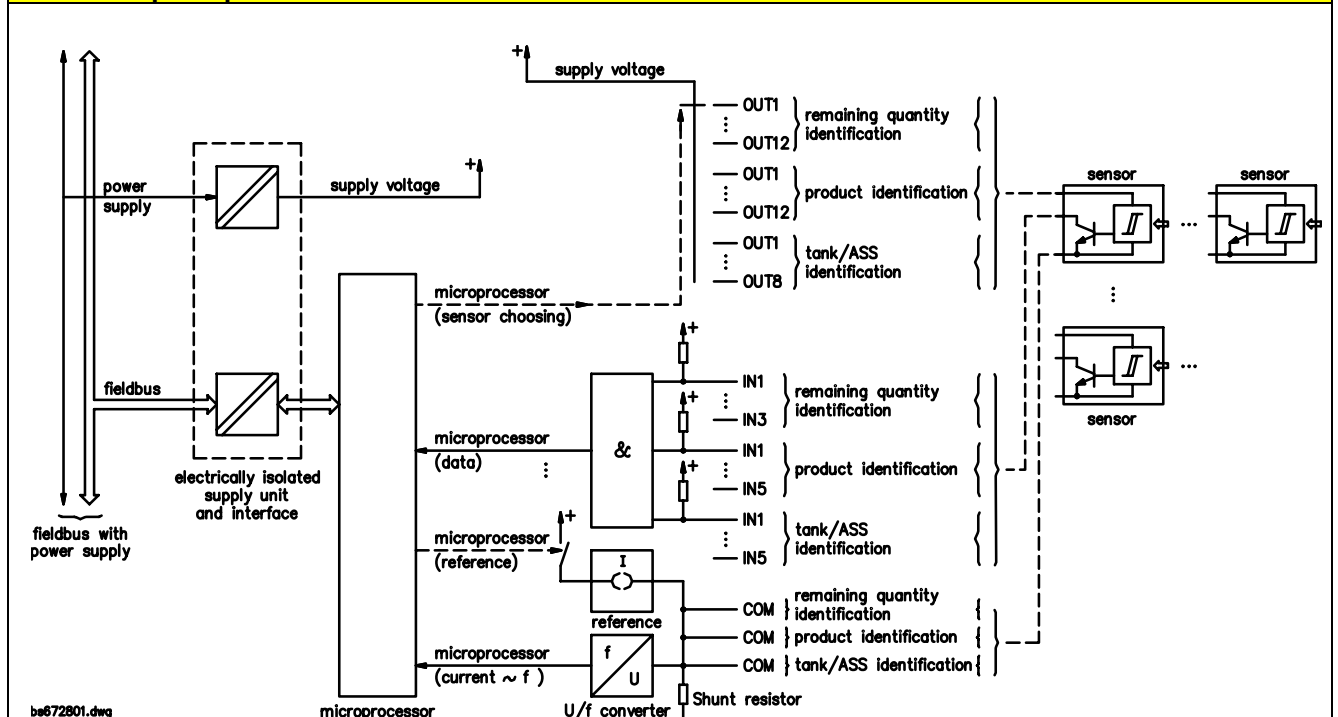
EC-type examination certificate  
BVS 03 ATEX E 220.

| Technical data                                    |  |
|---|--|
| <b>Device-specific data</b>                       |  |
| Nominal voltage (electronics)<br>(clamps „+“, -“) | DC 24 V $\pm$ 20 %<br>(max. DC 13 V .. 36 V)   |
| Voltage current at DC 24 V                        | 0,15 A   |
| Max. voltage $U_m$                                | 50 V   |
| Max. through current                              | 7 A  |
| Devices group/-category (94/9/EG)                 | II 2 G   |
| Type of protection                                | EEx em [ib] IIB T4   |
| <b>Electrical data</b>                            |  |
| Connection  | Screw clamp EEx e TOP 1.5 GS   |
| Cross-section of leads                            | 0.5 mm <sup>2</sup> bis 1.5 mm <sup>2</sup><br>(unifilar strand or wire with cable ends)   |
| Interface   | P-NET fieldbus interface, serial, asynchronous,<br>baud rate 76800 bit/s, max. length of line 1200 m   |
| Terminal strip KL1: tank-/ASS identification      | Nominal voltage DC 7 V<br>Characteristic neutralizing circuit EEx ia IIB<br>Max. output voltage $U_o = 8.5$ V<br>Max. output current $I_o = 300$ mA<br>Max. output achievement $P_o = 638$ mW<br>Interior resistance $R_i = 28,3$ $\Omega$<br>Max. external capacity $C_o = 5,5$ $\mu$ F<br>Max. external inductivity $L_o = 0,1$ mH<br>or<br>Max. external capacity $C_o = 1,8$ $\mu$ F<br>Max. external inductivity $L_o = 1,5$ mH |
| Terminal strip KL2: product identification        | Nominal voltage DC 7 V<br>Characteristic neutralizing circuit EEx ia IIB<br>Max. output voltage $U_o = 8.5$ V<br>Max. output current $I_o = 400$ mA<br>Max. output achievement $P_o = 850$ mW<br>Interior resistance $R_i = 22$ $\Omega$<br>Max. external capacity $C_o = 3,9$ $\mu$ F<br>Max. external inductivity $L_o = 0,1$ mH<br>or<br>Max. external capacity $C_o = 1,5$ $\mu$ F<br>Max. external inductivity $L_o = 0,9$ mH   |
| Terminal strip KL3: residual quantity             | Nominal voltage DC 7 V<br>Characteristic neutralizing circuit EEx ia IIB<br>Max. output voltage $U_o = 8.5$ V<br>Max. output current $I_o = 84$ mA<br>Max. output achievement $P_o = 180$ mW<br>Interior resistance $R_i = 102$ $\Omega$<br>Max. external capacity $C_o = 6,5$ $\mu$ F<br>Max. external inductivity $L_o = 0,1$ mH<br>or<br>Max. external capacity $C_o = 3,7$ $\mu$ F<br>Max. external inductivity $L_o = 1,5$ mH   |
| <b>Ambient conditions</b>                         |  |
| Operating temperature                             | -20 ... +50 °C   |
| Store temperature                                 | -20 ... +60 °C   |
| Protection system (EN 60529)                      | IP65   |
| <b>Mechanical data</b>                            |  |
| Mass  | 3 kg   |
| Dimensions  | 260 mm x 160 mm x 90 mm  |
| Weight  | Roubst Alu-diecast housing   |

## Connection occupancy



## Function principle



## Order designations

| Description                        | Order-no.    |
|------------------------------------|--------------|
| Sensor Interface EEx, type 6728-10 | U89117672810 |