Features

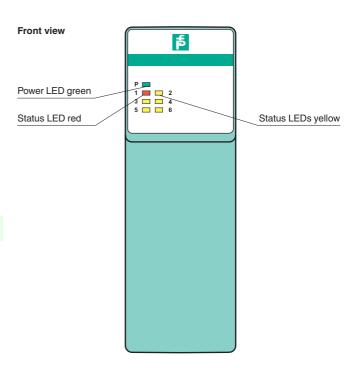
- Interface between the I/O modules and the PCS/PLC
- · Com unit for 80 analog or 184 digital channels
- Communication via PROFIBUS DP
- · Mounting in Zone 2, Class I/Div.2 or in the safe area
- HART communication via PROFIBUS DP V1 or service bus
- Configuration via GSD parameters from the control system
- · Non-volatile memory for configuration and parameter settings
- · Self configuration in redundant systems
- · Permanently self-monitoring
- · Outputs drive to safe state in case of failures
- · Module can be exchanged under voltage

Function

The PROFIBUS com unit forms the interface between the I/O modules on the backplane and the process control system.

It supports all single width and dual width I/O modules. Thereby signals from NAMUR sensors, mechanical contacts, high-power solenoid drivers, power relays, sounders, and alarm LEDs are transported to the higher-level bus system.

The com unit can be easily configured via DTM and supports redundancy as well as HART.

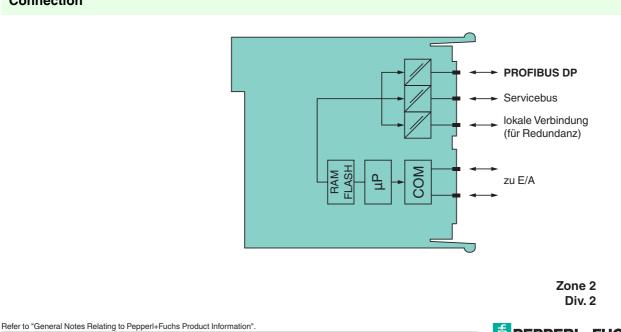


()

Assembly



Connection



Pepperl+Fuchs Group www.pepperl-fuchs.com

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| Supply | |
|--|--|
| Connection | backplane bus |
| Rated voltage | U _r 5 V DC , only in connection with the power supplies LB9*** |
| Power dissipation | 1.8 W |
| Power consumption | 1.8 W |
| Fieldbus interface | |
| Fieldbus type | PROFIBUS DP/DP-V1 |
| PROFIBUS DP | |
| Connection | 9-pin Sub-D socket via backplane |
| Baud rate | up to 1.5 MBit/s |
| Protocol | PROFIBUS DP/DP V1 read/write services |
| Number of stations per bus line | \leq 125 (PROFIBUS), \leq 119 (service bus) |
| Cyclic process data | 240 bytes input and (simultaneously) 240 bytes output |
| Number of stations per bus segme | ent \leq 31 (RS-485 standard) |
| Number of repeaters between Ma | aster max. 3 |
| and Slave | |
| Supported I/O modules | all LB remote I/O modules |
| Bus length | ≤ 1000 m (FOL, 1.5 MBaud), |
| | \leq 1000 m (copper cable, 187.5 kBd), |
| Addressing | ≤ 200 m (copper cable, 1.5 MBd) |
| Addressing | via configuration software |
| PROFIBUS address | 0 126 (factory standard setting: 126) |
| GSE file | CGV61711.gsd/gse |
| HART communication | via PROFIBUS or service bus |
| Internal bus | |
| Connection | backplane bus |
| Redundancy | via backplane |
| Indicators/settings | via backpiane |
| LED indication | LED P: (power supply): On = operating, fast flash = cold start |
| | LED 2: (status fieldbus): flashing = PROFIBUS receive channel active LED 3: (status service bus): flashing = service bus receive channel active LED 4: (operating mode): flashing 1 (1:1 ratio) = active, normal operation; flashing 2 (7:1 ratio) = active, simulation LED 5: (status fieldbus): flashing = PROFIBUS response channel active LED 6: (status service bus): flashing = service bus response channel active |
| Directive conformity | |
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 61326-1 |
| Conformity | |
| Electromagnetic compatibility | NE 21 |
| Degree of protection | IEC 60529 |
| Fieldbus standard | IEC 61158-2 |
| Environmental test | EN 60068-2-14 |
| Shock resistance | EN 60068-2-27 |
| Vibration resistance | EN 60068-2-6 |
| Damaging gas | EN 60068-2-42 |
| Relative humidity | EN 60068-2-56 |
| Ambient conditions | |
| Ambient temperature | -20 60 °C (-4 140 °F) |
| Storage temperature | -25 85 °C (-13 185 °F) |
| Relative humidity | 95 % non-condensing |
| Shock resistance | shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18 |
| Vibration resistance | frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at each resonance |
| Damaging gas | designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3 |
| Mechanical specifications | |
| Degree of protection | IP20 (module), mounted on backplane |
| • · | via backplane |
| Connection | |
| Connection Mass | approx. 120 g |
| | approx. 120 g 32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch) |
| Mass | 32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch) |
| Mass Dimensions | 32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch) |
| Mass Dimensions Data for application in connec | 32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch) |

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| Marking | (x) II 3 G Ex nA IIC T4 Gc |
|-----------------------------|---|
| Directive conformity | |
| Directive 2014/34/EU | EN 60079-0:2009 EN 60079-11:2007 EN 60079-15:2010 |
| International approvals | |
| ATEX approval | PF 08 CERT 1234 X |
| UL approval | E106378 |
| Control drawing | 116-0321 |
| Approved for | cUL (Canada): CL I Zn. 2 IIC; IS circuits for CL I Zn. 0 IIC ULus (USA): CL I Div. 2 Grp. A, B, C, D; IS circuits for CL I, II, III Div. 1 Grp. A, B, C, D, E, F, G |
| IECEx approval | BVS 09.0037X |
| Approved for | Ex nA IIC T4 Gc |
| EAC approval | Russia: RU C-IT.MIII06.B.00129 |
| Marine approval | |
| Lloyd Register | 15/20021 |
| DNV GL Marine | TAA0000034 |
| American Bureau of Shipping | T1450280/UN |
| Bureau Veritas Marine | 22449/B0 BV |
| General information | |
| System information | The module has to be mounted in appropriate backplanes (LB9***) in Zone 2 or outside hazardous areas. Here, observe the corresponding declaration of conformity. For use in hazardous areas (e.g. Zone 2, Zone 22 or Div. 2) the module must be installed in an appropriate enclosure. |
| Supplementary information | EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com. |

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