Features

- Interface between the I/O modules and the DCS/PLC
- Com unit for 80 analog or 184 digital channels
- Communication via PROFIBUS DP
- 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
- Installation in Zone 2, Zone 22, Div. 2, or safe area
- Module can be exchanged under voltage

Function

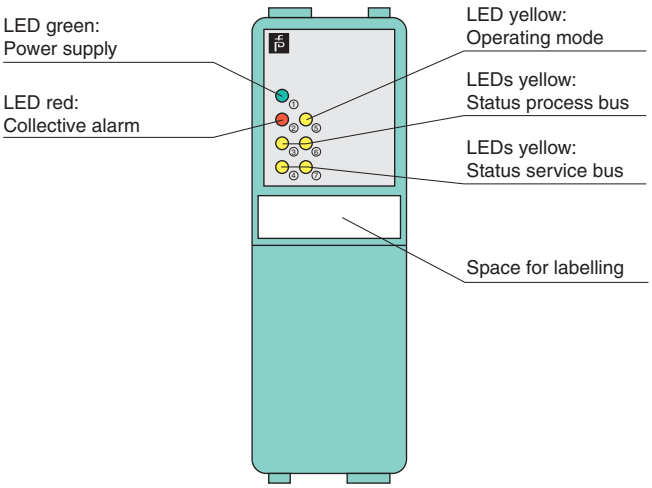
The Remote I/O Com Unit or Gateway links intrinsically safe and safe inputs and outputs from sensors and actuators to the PROFIBUS.

It makes use of all regular I/O modules and thus transports signals to and from NAMUR sensors, mechanical contacts, high power IS solenoids, power relays, sounders, and alarms LEDs.

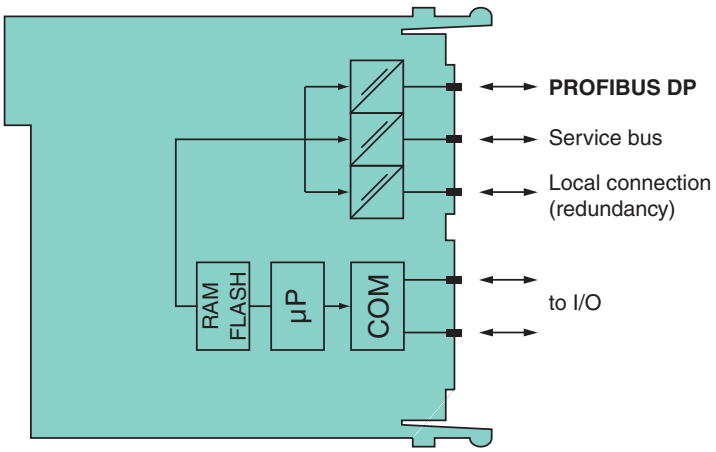
The Com Unit supports online configuration, redundancy, and HART. It is well integrated into all renowned DCS and PLC systems.

Assembly

Front view



Connection



Zone 2
Div. 2

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Supply	
Connection	backplane bus
Rated voltage U_n	5 V DC , only in connection with the power supplies LB9***
Power consumption	2 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	≤ 125 (PROFIBUS), ≤ 119 (service bus)
Number of channels per station	≤ 80 analog, ≤ 184 digital (standard configuration)
Number of stations per bus segment	≤ 31 (RS-485 standard)
Number of repeaters between Master and Slave	max. 3
Supported I/O modules	all LB remote I/O modules
Bus length	≤ 1000 m (FOL, 1.5 MBaud), ≤ 1000 m (copper cable, 187.5 kBd), ≤ 200 m (copper cable, 1.5 MBd)
Addressing	via configuration software
PROFIBUS address	0 ... 126 (ex works standard: 126)
GSE file	CGV61711.gsd/gse
HART communication	via PROFIBUS or service bus
Internal bus	
Connection	backplane bus
Redundancy	via backplane
Indicators/settings	
LED indicator	LED 1 (power supply): On = operating, fast flash = cold start LED 2 (collective alarm): On = internal fault, flashing = no PROFIBUS connection LED 3 (status process bus): flashing = PROFIBUS receive channel active LED 4 (status service bus): flashing = service bus receive channel active LED 5 (operating mode): flashing 1 (1:1 ratio) = active, normal operation; flashing 2 (7:1 ratio) = active, simulation LED 6 (status process bus): flashing = PROFIBUS response channel active LED 7 (status servicebus): flashing = service bus response channel active
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	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 50 m/s^2, number of shock directions 6, number of shocks per direction 100
Vibration resistance	frequency range 5 ... 500 Hz, amplitude 5 ... 13.2 Hz ± 1.5 mm, 13.2 ... 100 Hz 1g, sweep rate 1 octave/min, duration 10 sweeps 5 Hz - 100 Hz - 5 Hz
Damaging gas	for plugs: 21 days in 25 ppm SO_2, at 25 °C and 75 % rel. humidity, device G3
Mechanical specifications	
Degree of protection	IP20 (module) , mounted on backplane
Connection	via backplane
Mass	approx. 120 g
Dimensions	32 x 100 x 103 mm (1.26 x 3.9 x 4 in)
Data for application in connection with Ex-areas	
Statement of conformity	PF 08 CERT 1234 X
Group, category, type of protection	⟨Ex⟩ II 3 G Ex nA IIC T4 Gc
Directive conformity	

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Directive 94/9/EC	EN 60079-0:2009 EN 60079-11:2007 EN 60079-15:2010
International approvals	
UL approval	E106378
IECEx approval	BVS 09.0037X
Approved for	Ex nAc II T4
General information	
System information	The module has to be mounted in appropriate backplanes (LB9***) in Zone 2 or outside hazardous areas. Here, the corresponding declaration of conformity has to be observed. 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.

Versions

Bus couplers are available with different firmware versions. The type code extension * designates the firmware version.

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