## **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 FDT 1.2 DTM
- Configuration in run (CiR) for any PCS
- 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**

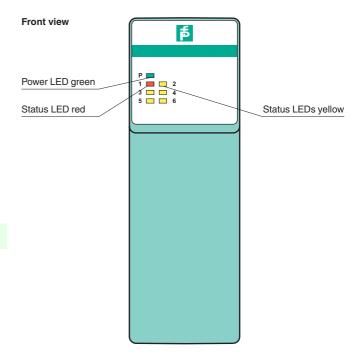
The PROFIBUS com unit forms the interface between the I/O modules on the backplane and the process control system.

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.

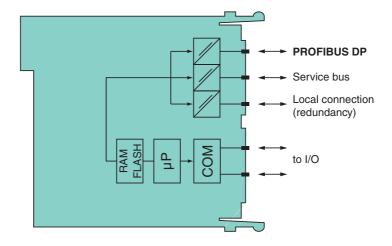
Configuration in Run (CiR) enables configuration of a running system without a PROFIBUS restart, even in non-redundant systems.

## **Assembly**





## Connection



Zone 2 Div. 2

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Supply Commedicin Rated voltage U, SVDC, only in connection with the power supplies LB9*** Power consumption 1.8 W Power consumption 1.8 W Picticulous interface Fieldbus interface PROFIBUS DP Connection 9-pin Sub-D socket via backplaine Up to 1.5 M Bill's Protocol Number of stations per bus line Cyclie process data 210 bytes input and climitutinenously) 240 bytes output 231 (R8-48 standard) Number of relations per bus support Number of relations per bus support Number of relations per bus line 231 (R8-48 standard) Number of relations per bus support per bus suppose channel active LED 1: (collective alarm): On = operating, fast flash = cold start, slow flash per bus suppose channel active LED 1: (collective alarm): On = operating,		·		
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Fieldbus type				
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Baud rate		0 nin Cub Discolativia haskalana		
Protocol   PROFIBUS D.P.IP 9.1 read/write services				
Number of stations per bus line         ≤ 125 (PROFIBUS), ≤ 119 (service bus)           Oyclic process data         240 bytes input and (simultaneously) 240 bytes output           Number of repeaters between Master and Slave         and Slave           Supported I/O modules         all LB remote I/O modules           Configuration (240 bytes I/O)         Standard: 80 analog, 184 digital Universal 2/200- 48 analog, 184 digital Universal 2/200 m (copper cable, 1.5 MBa)           Addressing         √100 m (FOL, 1.5 MBaud), ≤ 100 m (Gopper cable, 1.5 MBa)           Addressing         √20 m (copper cable, 1.5 MBa)           ABCFIBUS and cable and the station of the station		·		
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Number of repeaters between Master and Slave and Slave and Slave   Supported I/O modules   all LB remote I/O modules   Standard: 80 analog, 184 digital   Universal 410-0 80 analog, 120 digital   Simple Standard   Simple Stan			· ·	
and Slave Supported I/O modulus  Configuration (240 bytes I/O)  Standard: 80 analog, 184 digital Universal 2/120-48 analog, 184 digital Universal 2/120-48 analog, 180 digital Universal 4/10-00 analog, 180 digital			Number of stations per bus segment	
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Universal 2IRC - 48 analog, 184 digital   Universal 4IRC - 60 analog, 120 digital		all LB remote I/O modules		
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PROFIBUS address  (factory standard setting: 126)  GSE file  CGW61710_gsd/gse  Via PROFIBUS or service bus  Internal bus  Connection  backplane bus  via backplane  LED ndications/settings  LED p: (power supply): On = operating, fast flash = cold start, slow flash = HCIR loading active  LED i: (celloctive alarm): On = internal fault, flashing = no PROFIBUS connection  LED : (status feldobus): flashing = PROFIBUS receive channel active  LED 4: (operating mode): flashing 1 (11: ratio) = active, normal operation; flashing 2 (7:1 ratio) = active simulation  LED 6: (status service bus): flashing = PROFIBUS response channel active  LED 6: (status service bus): flashing = service bus receive channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status service bus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing = service bus response channel active  LED 6: (status fieldbus): flashing   (status fieldbus): flashing   (status fieldbus): flashing   (status fieldbus): flashing   (s		$\leq$ 1000 m (copper cable, 187.5 kBd),	Bus length	
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Damaging gas  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  Vibration resistance  frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 groups of the cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 meach resonance  Damaging gas  Mechanical specifications  Degree of protection  IP20 (module), mounted on backplane				
Relative humidity  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  yhere yield in the specifications  Degree of protection  EN 60068-2-56  Ambient conditions  -20 60 °C (-4 140 °F)  -25 85 °C (-13 185 °F)  Per Relative humidity  95 % non-condensing  shock duration 11 ms, shock amplitude 15 g, number of shocks 18  frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g cycles  frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m each resonance  Demaging gas  Mechanical specifications  Degree of protection  IP20 (module), mounted on backplane				
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 cycles  frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m 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				
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 cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m each resonance 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		E11 00000-2-00	•	
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 good cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m each resonance 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		-20 60 °C (-4 140 °F)		
Relative humidity  95 % non-condensing  shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18  Vibration resistance  Vibration resistance  frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m each resonance  Damaging gas  Mechanical specifications  Degree of protection  IP20 (module), mounted on backplane			•	
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 cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m 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				
Vibration resistance  frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 grouples frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 m 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			•	
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	-	frequency range 10 150 Hz; transition frequency: $57.56$ Hz, amplitude/acceleration $\pm$ 0.075 m cycles frequency range 5 100 Hz; transition frequency: $13.2$ Hz amplitude/acceleration $\pm$ 1 mm/0.7 g;		
Mechanical specifications  Degree of protection IP20 (module) , mounted on backplane	level G3		aging gas	
Degree of protection IP20 (module) , mounted on backplane		and the state of t		
		IP20 (module) , mounted on backplane		
TIM DUCKPIULIO			•	
·		·		
Dimensions 32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch)		11		
Mass approx. 120 g	-	frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; each resonance designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3  IP20 (module) , mounted on backplane via backplane approx. 120 g	hanical specification ee of protection nection	



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Data for application in connection with hazardous areas	
Certificate	PF 08 CERT 1234 X
Marking	
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.pepperlfuchs.com.