

Unicom Com Unit for PROFIBUS DP/DP-V1

FB8209H0908.3

- Interface between the I/O modules and the PCS/PLC
- Com unit for 80 analog or 184 digital channels
- Communication via PROFIBUS DP
- Installation in suitable enclosures in Zone 1
- 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

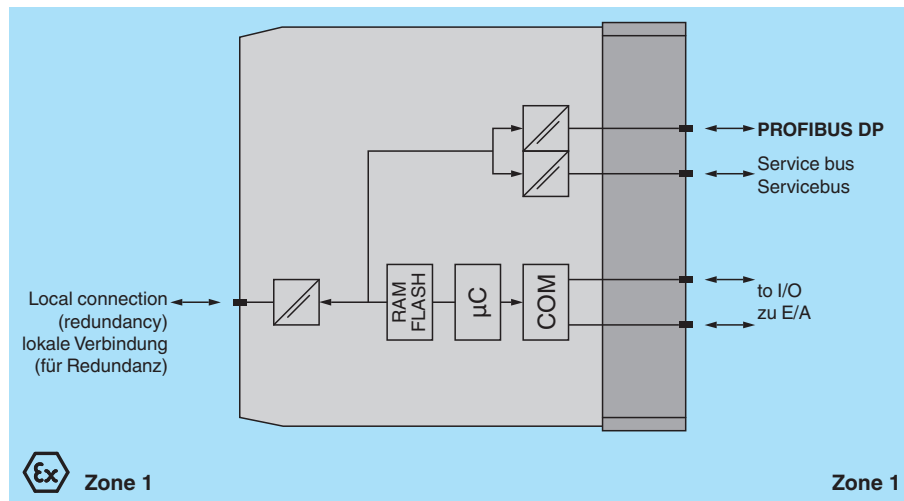
Unicom Com Unit for PROFIBUS DP/DP-V1



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.

Connection



Technical Data

Slots	
Occupied slots	2
Supply	
Connection	backplane bus
Rated voltage	U _r 5 V DC , only in connection with the power supplies FB92**
Power dissipation	1.8 W
Power consumption	1.8 W
Fieldbus connection	
Fieldbus type	PROFIBUS DP/DP-V1

Release date: 2023-12-06 Date of issue: 2023-12-06 Filename: 70106285_eng.pdf

Technical Data

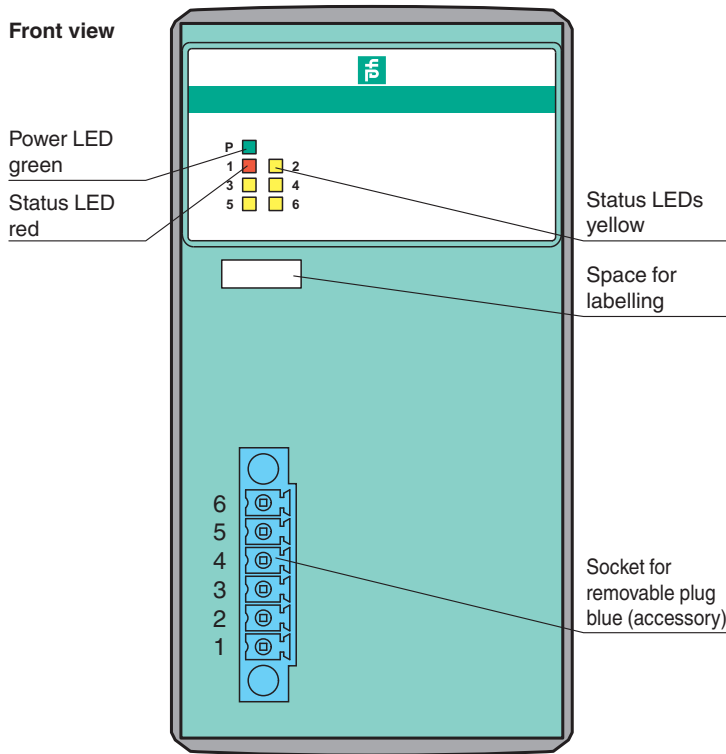
PROFIBUS DP	
Connection	wired to Ex e terminals via backplane
Baud rate	up to 1.5 MBit/s
Protocol	PROFIBUS DP/DP V1 read/write services
Number of stations per bus line	max. 125 (PROFIBUS), max. 119 (service bus)
Cyclic process data	240 bytes input and (simultaneously) 240 bytes output
Number of stations per bus segment	max. 31 (RS-485 standard)
Number of repeaters between Master and Slave	max. 3
Supported I/O modules	all FB remote I/O modules
Configuration (240 bytes I/O)	Standard: 80 analog, 184 digital Universal 2I2O: 48 analog, 184 digital Universal 4I4O: 60 analog, 120 digital
Bus length	max. 1000 m (FOL, 1.5 Mbaud), max. 1000 m (copper cable, 187.5 kBd), max. 200 m (copper cable, 1.5 MBd)
Addressing	via configuration software
PROFIBUS address	0 ... 126 (factory standard setting: 126)
GSE file	PFV61710.gsd/gse
HART communication	via PROFIBUS or service bus
Internal bus	
Connection	backplane bus
Redundancy	via front connector
Indicators/settings	
LED indication	LED green (power supply): On = operating, fast flash = cold start, slow flash = HCIR loading active LED red (collective alarm): On = internal fault, flashing = no PROFIBUS connection LED yellow (operating mode): flashing 1 (1:1 ratio) = active, normal operation; flashing 2 (7:1 ratio) = active, simulation
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
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 60068-2-78
Ambient conditions	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 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) , a separate housing is required acc. to the system description
Connection	via backplane
Mass	approx. 750 g
Dimensions	57 x 107 x 132 mm (2.2 x 4.2 x 5.2 inch)

Technical Data

Data for application in connection with hazardous areas	
EU-type examination certificate	Presafe 19 ATEX 14058U
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 EN 60079-1:2014 EN 60079-5:2015 EN 60079-7:2015+A1:2018 EN 60079-11:2012
International approvals	
ATEX approval	Presafe 19 ATEX 14058U
IECEX approval	IECEX PRE 19.0013U
Approved for	Ex db eb q [ib] IIC Gb
General information	
System information	The module has to be mounted in appropriate backplanes (FB92**) in Zone 1, 2, or outside hazardous areas. Observe the corresponding EC-type examination certificate.
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 .

Assembly

Front view



Release date: 2023-12-06 Date of issue: 2023-12-06 Filename: 70106285_eng.pdf