Features

- Interface between the I/O modules and the DCS/PLC
- Bus coupler for 80 analog or 184 digital channels
- Communication via MODBUS TCP
- HART communication via MODBUS TCP or service bus
- Configuration via FDT 1.2 DTM
- 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 (hot swap)

Function

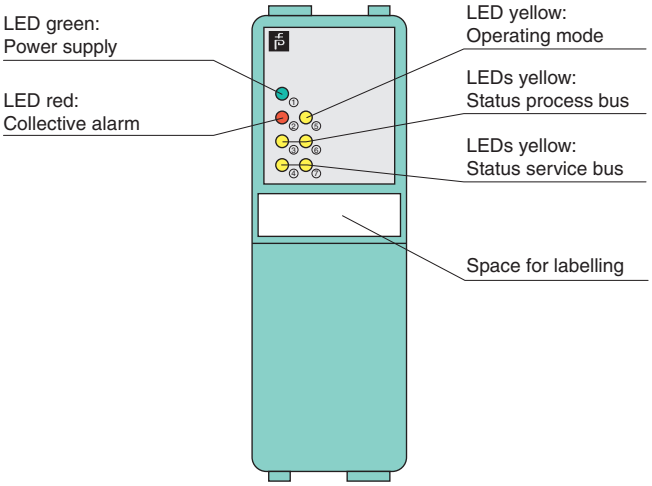
The MODBUS TCP Remote I/O Com Unit or Gateway links intrinsically safe and safe inputs and outputs from sensors and actuators to the Ethernet.

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.

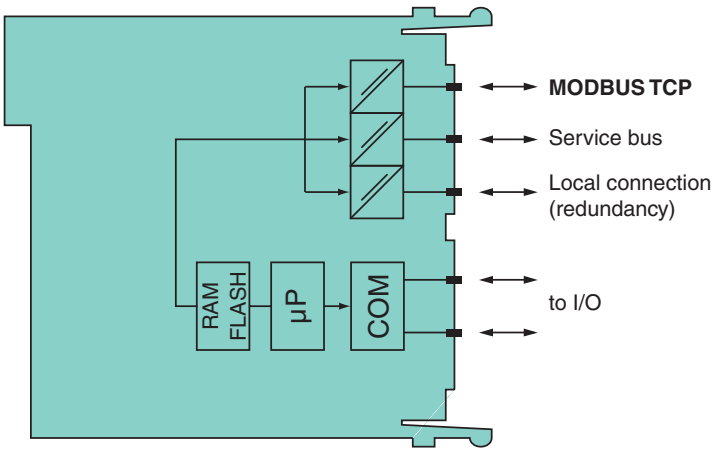
Industrial Ethernet hardware is familiar to most users not only through office applications but also through the architecture on which DCS systems are based.

Assembly

Front view



Connection



Zone 2
Div. 2

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Supply	
Connection	backplane bus
Rated voltage	5 V DC , only in connection with the power supplies LB9***
Power consumption	2.5 W
Ethernet Interface	
Connection type	RJ-45 , via backplane
Transfer rate	10 MBit/s
Station connection	directly to DCS or PLC or via hubs or switches
Bus length	≤ 100 m (Ethernet standard)
Addressing	IP address assigned via Ethernet
Ethernet address	IP V4 address (ex works standard: 0.0.0.0, auto IP, DHCP)
Number of channels per station	≤ 80 analog, ≤ 184 digital
Supported I/O modules	all LB Remote I/O modules
HART communication	via Ethernet or service bus
Internal bus	
Connection	backplane bus
Redundancy	via backplane
Service interface	
Connection	9-pole to RS 485 standard , Sub-D
Number of stations per bus line	31 (RS 485 standard)
Indicators/settings	
LED indicator	LED 1 (power supply): On = operating, fast flash = cold start LED 2 (collective alarm): On = internal fault, flashing = no Modbus TCP connection LED 3 (status process bus): On = Network link OK 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 = Modbus response channel active LED 7 (status servicebus): flashing = service bus response channel active
Labeling	space for labeling at the front
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1
Conformity	
Protection degree	IEC 60529
Fieldbus standard	IEEE 802.3
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	
Protection degree	IP20 (module) , mounted on backplane
Connection	via backplane
Mass	approx. 150 g
Dimensions	32 x 100 x 103 mm (1.26 x 3.9 x 4 in)
Data for application in connection with Ex-areas	
Declaration of conformity	PF 08 CERT 1234 X
Group, category, type of protection, temperature class	Ⓔx II 3 G Ex nA IIC T4
Directive conformity	
Directive 94/9/EC	EN 60079-0 , EN 60079-15
International approvals	
UL approval	E106378
IECEx approval	BVS 09.0037X
General information	

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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.

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