

## Features

- Interface between the I/O modules and the PCS/PLC
- Com unit for 20 analog or 40 digital channels
- Communication via FOUNDATION Fieldbus H1
- Mounting in Zone 2, Class I/Div.2 or in the safe area
- HART communication via service bus
- Configured via the process control system
- Non-volatile memory for configuration and parameter settings
- Quick communication set-up
- Permanently self-monitoring
- Outputs drive to safe state in case of failures
- Supports multichannel I/O modules
- Module can be exchanged under voltage

## Function

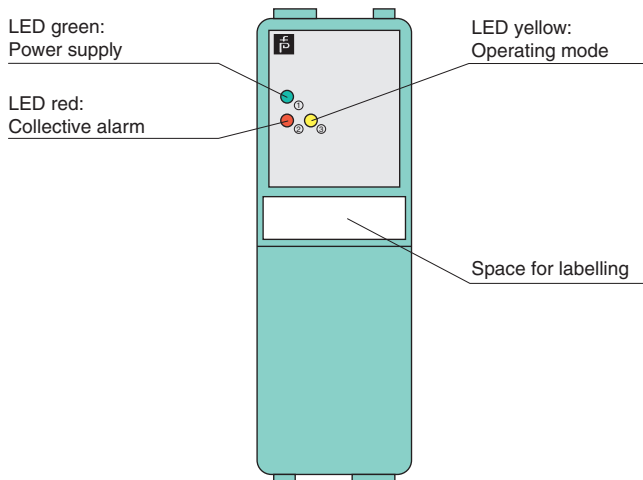
The FOUNDATION Fieldbus com unit forms the interface between the I/O modules on the backplane and the process control system.

It supports only 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.

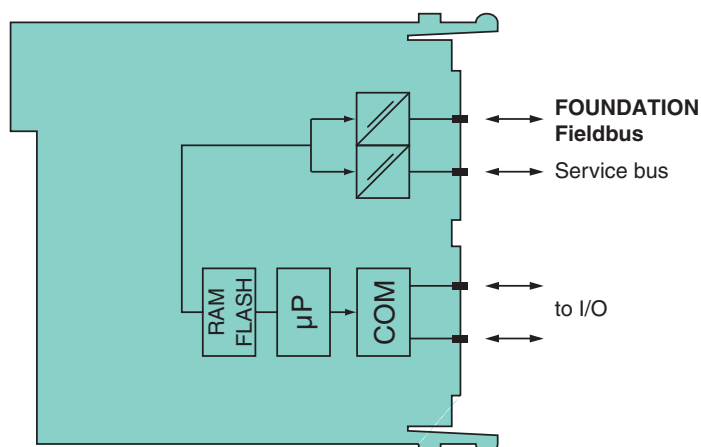
The com unit can be easily configured via DTM and supports HART.

## Assembly

### Front view



## Connection



Zone 2  
Div. 2

<b>Supply</b>	
Connection	backplane bus
Rated voltage $U_r$	5 V DC , only in connection with the power supplies LB9***
Power consumption	2 W
Auxiliary energy	24 V DC Trunk load 20 mA
<b>Fieldbus interface</b>	
Fieldbus type	FOUNDATION Fieldbus H1
FOUNDATION Fieldbus	
Connection	plug-in screw connector on the backplane
Baud rate	31.25 kBit/s , MBP
Protocol	H1 to IEC 1158-2
Station connection	directly at the trunk or via spur protector
Number of stations per bus line	1 or 2, depending on the required response times
Number of channels per station	≤ 20 analog, ≤ 40 digital
Supported I/O modules	5 slots, to be filled with (combinations possible): 1*08 digital input, 8-channel, NAMUR 3*05 analog input, 4-channel, 20 mA (HART via service bus) 4*05 analog output, 4-channel, 20 mA (HART via service bus) 5*04 Pt100 RTD input, 4-channel 5*05 thermocouple input, 4-channel 6005 relay output, 4-channel, 230 V 6006 relay output, 8-channel, 24 V 6*08 digital output, 8-channel, Ex i 6*10-6*15 digital output, 4-channel, Ex i power * = variable (0=non-IS, 1=IS)
Bus length	≤ 1900 m (must not be exceeded by the sum of all trunk and spur lines)
Spur length	≤ 120 m (depending on the number of field devices. Modular I/O station = 1 field device)
Addressing	via PCS (software)
<b>Internal bus</b>	
Connection	backplane bus
<b>Indicators/settings</b>	
LED indicator	LED 1 (power supply): On = operating, fast flash = cold start LED 2 (collective alarm): On = internal fault, flashing = no fieldbus LED 3 (operating mode): Flashing = active
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1
<b>Conformity</b>	
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
<b>Ambient conditions</b>	
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
<b>Mechanical specifications</b>	
Degree of protection	IP20 (module) , mounted on backplane
Connection	via backplane
Mass	approx. 150 g
Dimensions	32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch)
<b>Data for application in connection with hazardous areas</b>	
Certificate	PF 08 CERT 1234 X
Marking	 II 3 G Ex nA IIC T4 Gc

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

<b>Directive conformity</b>	
Directive 2014/34/EU	EN 60079-0:2009 EN 60079-11:2007 EN 60079-15:2010
<b>International approvals</b>	
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
<b>Marine approval</b>	
Lloyd Register	15/20021
DNV GL Marine	TAA0000034
American Bureau of Shipping	T1450280/UN
Bureau Veritas Marine	22449/B0 BV
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

### Ordering information

Model / Order No.	Function
LB 8110 H *	Temperature measured in degrees Celsius
LB 8110 C *	Temperature measured in degrees Fahrenheit

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