

# Enclosure Leakage Sensor FieldConnex® Fieldbus ELS-1



- Indication via LED and Advanced Diagnostics
- Intrinsically safe, FISCO or Entity
- For instrument or device coupler
- Fits inside terminal compartment
- For FOUNDATION Fieldbus H1 and PROFIBUS PA

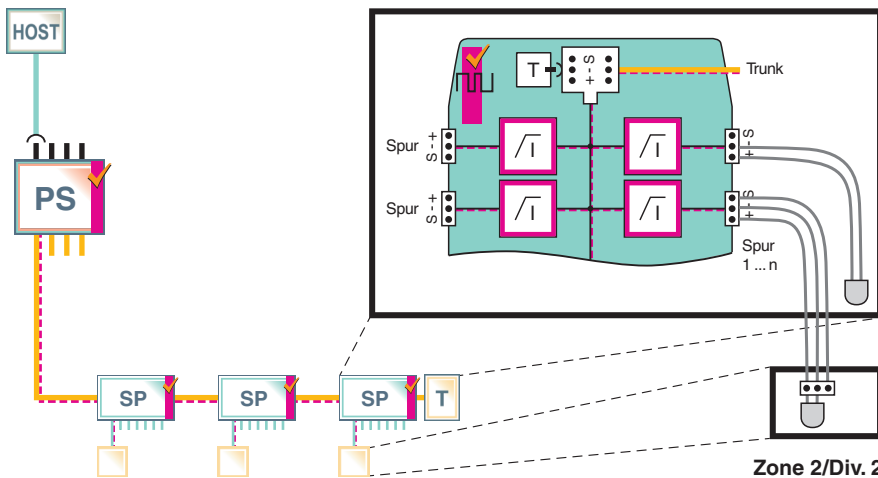
Enclosure leakage sensor for operation with FOUNDATION Fieldbus and PROFIBUS PA



## Function

The enclosure leakage sensor senses water ingress in field device housings or junction boxes. It fits into the enclosure and sends alarms via the fieldbus network. It is certified intrinsically safe Ex ia for installation in Zone 0. The alarm is indicated via LED and in the control room via FieldConnex® Advanced Diagnostics. Corrective actions can thus prevent effects from becoming irreversible or avoid conditions adverse to plant performance. The ELS-1 connects in parallel to field instruments, trunk or spur connectors of compatible device coupler.

## Connection



## Technical Data

### General specifications

Design / Mounting	Cabinet installation
Installation in hazardous area	Zone 1 / Div. 1

### Fieldbus connection

Rated voltage	$U_N$	9 ... 32 V
Power dissipation		670 mW
Self current consumption		max. 6 mA

### Indicators/operating means

LED ERR	green flashing: status OK , red flashing: maintenance required
---------	--

### Transfer characteristics

Internal measurement cycle	in normal state 30 s in alarm state 300 s
----------------------------	---

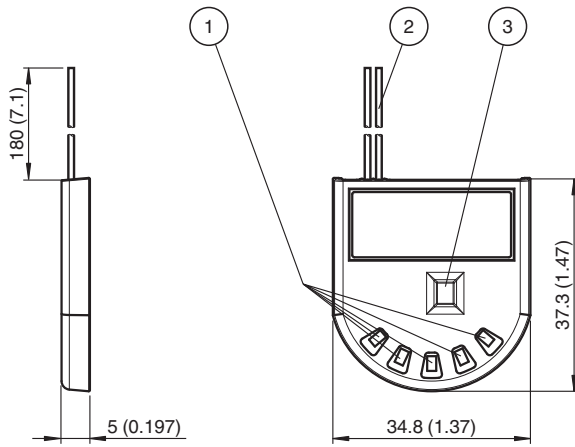
Release date: 2025-02-07 Date of issue: 2025-02-07 Filename: 240603\_eng.pdf

## Technical Data

<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013
<b>Standard conformity</b>		
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529
Fieldbus standard		IEC 61158-2
Climatic conditions		IEC 60721
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-6
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 80 °C (-40 ... 176 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		100 %
Shock resistance		15 g 11 ms
Vibration resistance		1 g , 10 ... 150 Hz
Life span		exposed to rain water 8760 h , exposed to sea water 1440 h
<b>Mechanical specifications</b>		
Connection type		two strands, length 180 mm with cable ferrules, PVC insulation
Core cross section		0.25 mm <sup>2</sup>
Degree of protection		IP67
Mass		10 g
<b>Data for application in connection with hazardous areas</b>		
EU-type examination certificate		SIRA 12 ATEX 2129X
Marking		Ⓢ II 1G Ex ia IIC T4
Voltage	U <sub>i</sub>	24 V
Internal capacitance	C <sub>i</sub>	negligible 0 nF
Internal inductance	L <sub>i</sub>	negligible 0 μH
Certificate		SIRA 12 ATEX 4154X
Marking		Ⓢ II 3G Ex nAc IIC T4 , Ⓢ II 3G Ex ic IIC T4
Voltage	U <sub>i</sub>	33 V
Internal capacitance	C <sub>i</sub>	negligible 0 nF
<b>Directive conformity</b>		
Directive 2014/34/EU		EN IEC 60079-0:2018+AC:2020 , EN 60079-11:2012 , EN 60079-15:2010 , EN 60079-26:2015
Supplementary information		FISCO field device
<b>International approvals</b>		
<b>UL approval</b>		
Control drawing		116-B028
Approved for		Class I, Division 1, Groups A, B, C, D, T4 , Class I, Division 2, Groups A, B, C, D, T4
cULus		E326119
<b>IECEx approval</b>		
IECEx certificate		IECEx SIR 12.0052X
IECEx marking		Ex ia IIC T4 Ex ic IIC T4 Ex nAc IIC T4
<b>General information</b>		
Supplementary information		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> .

## Assembly



**Additional Information****Dimensions and Assembly**

Dimensions in mm (in)

- 1 Sensor elements
- 2 Connection line
- 3 LED