

# Enclosure Leakage Sensor 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

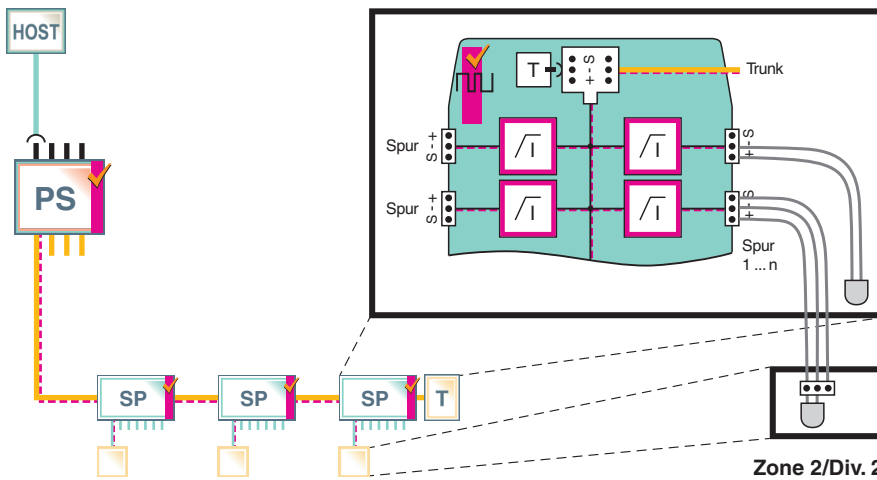
Housing leakage sensor, for operation with FOUNDATION Fieldbus and PROFIBUS PA



## 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
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
Directive conformity	

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

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## Technical Data

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>
Housing material		Polycarbonate
Degree of protection		Electronic component IP67 connection IP00
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 60079-0:2011 Ed. 6 , EN 60079-11:2012 , EN 60079-15:2010 , EN 60079-26:2007
Supplementary information		FISCO field device
<b>International approvals</b>		
UL approval		
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
IECEx approval		
Approved for		Ex ia IIC T4 , Ex ic IIC T4 , Ex nAc IIC T4
<b>Certificates and approvals</b>		
Marine approval		DNV A-14038
<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> .

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Assembly



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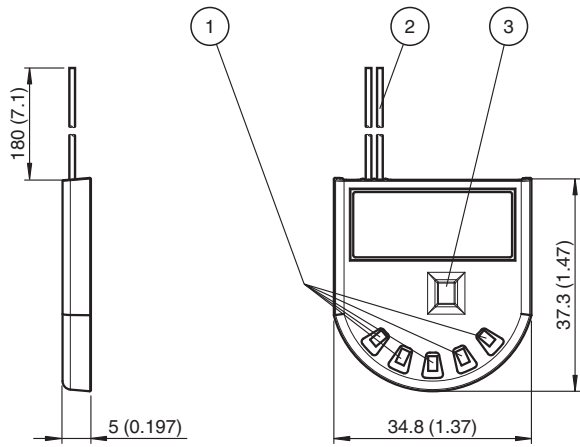
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**Additional Information**

**Dimensions and Assembly**



Dimensions in mm (in)

- 1 Sensor elements
- 2 Connection line
- 3 LED

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