

# POP-22 EXI

ENG

Level controller  
2W/3W level sensors

Robust, proven method  
for liquid level control

No moving parts,  
extremely reliable

Very easy to install

Approved according to  
ATEX Directive 94/9/EC



Measure your success

 **Labkotec**  
INDUTRADE GROUP

# POP-22 EXI level controller

to monitor levels, control pumps and valves



The **POP-22 EXI** is a versatile level controller to monitor levels, control pumps and valves as well as to send alarms. Labkotec's capacitive 3W sensors – or other loop-powered 2-wire sensors – can easily be connected to the device.

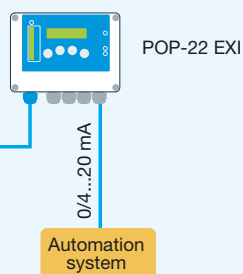
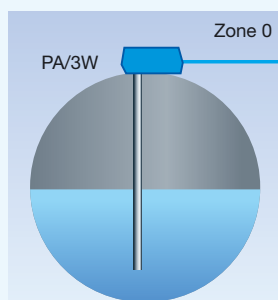
The POP-22 EXI is equipped with an in-built Ex-barrier, thus no separate barrier is needed, if the sensor is located in explosion hazardous atmosphere.



The POP-22 EXI can be connected to **LabkoNet® system**. LabkoNet® is an easy and reliable way of transferring and controlling the alarm data, only an Internet connection is needed. For further information on LabkoNet® and its possibilities, visit [www.labkonet.com](http://www.labkonet.com)

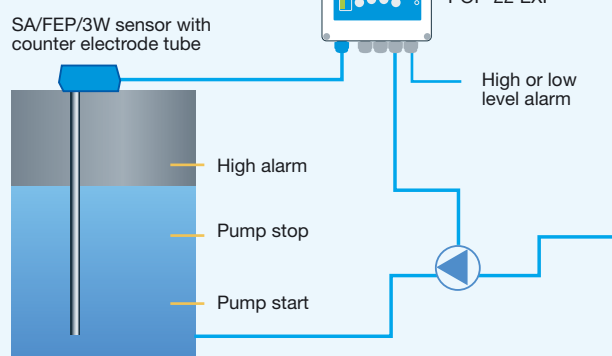
## Applications

### Fuel tank level measurement

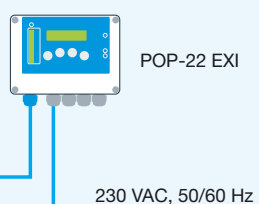
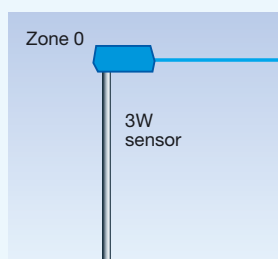


The output signal from the POP-22 EXI can be connected to the automation system or a side display. The two adjustable relay controls can be used for high and low level alarms or controls.

### Low hydraulic oil tanks

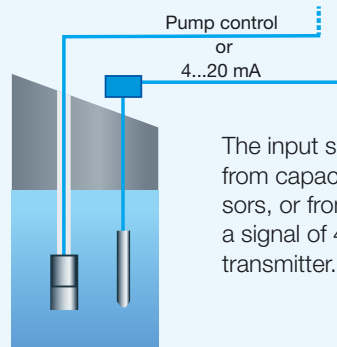


### Installation in potentially explosive atmospheres (Ex)



A level sensor located in explosion hazardous area can be connected to POP-22 EXI without separate Ex-barrier. The POP-22 EXI level controller must be located in safe area.

### Wells, pumping stations, booster pump station

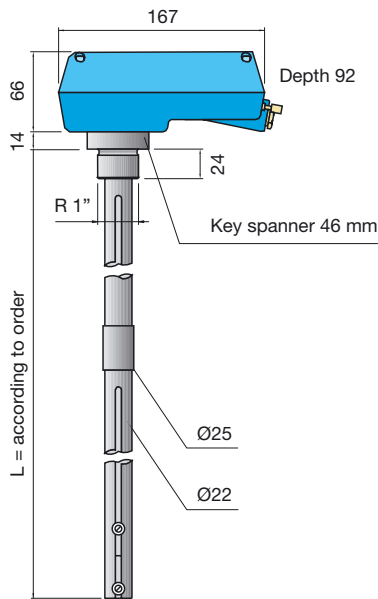


The input signal to the unit can come from capacitive 3W or 2W level sensors, or from any other device giving a signal of 4...20 mA, e.g. a pressure transmitter.

# 3W sensors for POP-22 EXI level controller

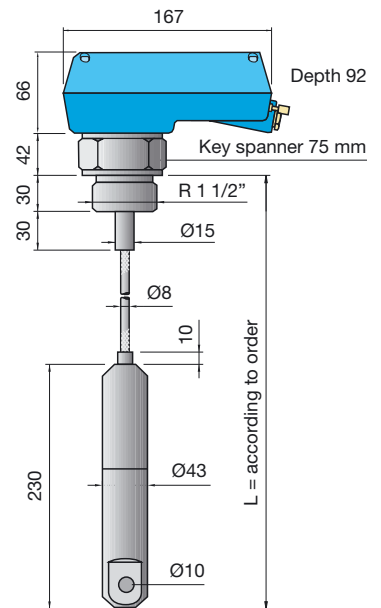
## PA/3W sensor PAH/3W sensor

The capacitive PA and PAH tube sensors are typically used for low-conductive liquids, such as oils, fuels, alcohols and solvents, as well as for fresh water level measurement. The sensor consists of a protective tube, which is made up of 1 m long pieces, a measuring cable stretched through its centre, and a transmitter.



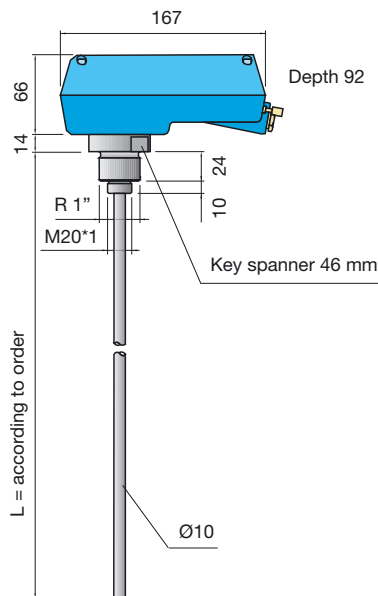
## KAS/3W sensor

The KAS wire sensor is intended for level measurement for dry powdery materials in metal tank. The measurement is based on the variation of the sensor's capacitance as a counter electrode of the capacitor. Typical applications are cement, lime, sand and other powdery materials.



## SA/FEP/3W sensor

This capacitive rodtype sensor is used for viscous liquids in low tanks (< 2 m). Typical applications are lubricating and hydraulic oils, latex and corrosive liquids. Available with a counter electrode tube for low-conductive liquids or when used in plastic tanks.



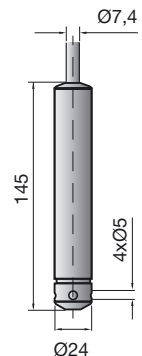
## DMU 08 sensor

DMU 08 pressure sensor is designed for continuous indication of the level in waste water facilities, wells or drilling holes.

The DMU 08 pressure sensor, contained in a stainless steel 1.4571 housing, converts pressures of gases and liquids in the pressure ranges from 0/100 mbar to 0/25 bar into proportional current signals.

A great variety of accessories such as screw connection sets, cable boxes with pressure compensation holes (IP 65), terminals, weight extensions or lightning protection for outside applications round off this offering.

Options include a DMU 08 Ex version (Ex protection II 1/2 G Ex ia IIC T4), PUR or FEP cables to customer's length specifications and different temperature ranges.



## Level measurement with other supplier's level sensors

POP-22 EX can also be used with other supplier's 2-wire level sensors. Please note, that the connecting values must be compatible in explosion-hazardous applications.

# Technical data

## POP-22 EXI level controller

Supply voltage	230 VAC, 50/60 Hz
Connection	4...20 mA transmitter or a capacitive Labkotec 3W sensor
Relay outputs	Two potential-free switching contacts, 250 V, 5 A, 100 VA – adjustable pick-up and release points
Current output	0/4...20 mA, linearization for horizontal cylindrical tanks
LED indicators	Supply voltage, relay states, fault condition
Settings	By means of the unit's display and keys
Ex approval	⊕ II (1) G, [Ex ia] II C, VTT 14 ATEX 055X
Ambient temperature	0...+50 °C
Enclosure	IP 65, polycarbonate
Dimensions	175 x 125 x 75 mm (WxHxD)



## 3W level sensors

Materials	FEP	All sensors
	- wetted parts	Steel AISI 316 Galvanized steel, PVC
- transmitter housing	Cast aluminium IP 65	PA/3W PAH/3W SA/FEP/3W KAS/3W All sensors
	Temperature range	
- sensing element	-40...+150 °C -40...+110 °C -40...+75 °C	PA/3W, PAH/3W, SA/FEP/3W KAS/3W
- transmitter	-25...+60 °C	All sensors
Max. pressure bar	Atmospheric	All sensors
Process junction	R 1"	PA/3W, PAH/3W, SA/FEP/3W
	R 1,5"	KAS/3W
Max. length	4 m	PA/3W, PAH/3W
	2 m	SA/FEP/3W
	10 m	KAS/3W

When ordering always remember to specify the medium to measured (also the dielectric constant if known) and the sensor length.

Ex classification	⊕ II 1 G, Ex ia II B T5, VTT 03 ATEX 067X
Cabling	Shielded instrument cable (3+1) x 0,5 mm <sup>2</sup>
Supply voltage	16...26 VDC POP-22 EXI control unit
Transmitter linearity of full scale	± 1 %

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