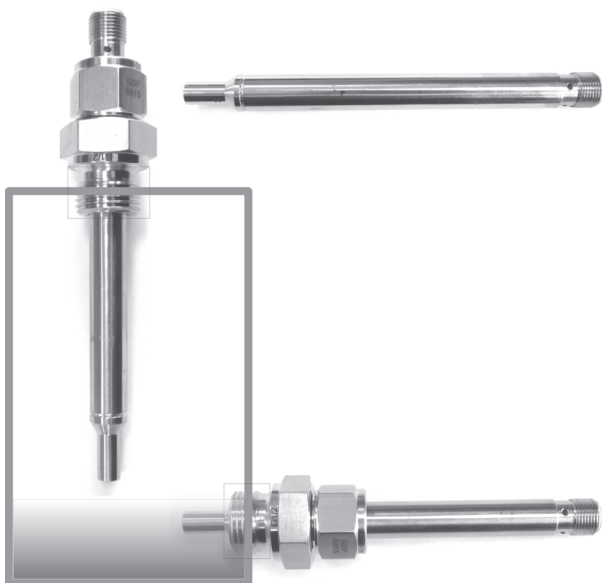


**Product Information**

**LABO-LK012**

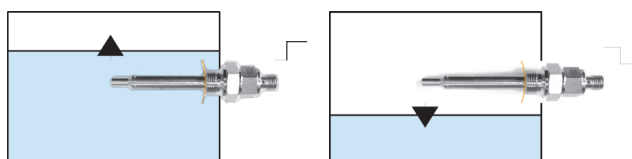
**Level Switch or  
Drip Sensor  
LABO-LK012**



- Complete electronic level switch in 12 mm housing
- Independent of conductivity, colour, ...
- Suitable for fluids and finer granulates
- Programmable hysteresis
- Suitable for very variable fluids
- Programmable power-on/power-off delays
- Very simple to use

**Characteristics**

The tips of the sensors of the LABO-LK012 family recognise a difference between fluid and air (gas). Temperature changes are compensated. The system is tolerant of contamination which lets water through (paper, mud, sugar solution, glue...).



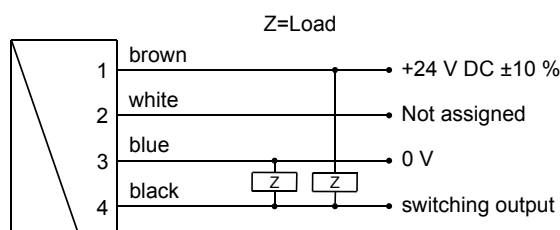
When set in sensitive mode, the LABO-LK012 sensor can be used as a drip sensor. Here, drops which hit the tip of the sensor create an output signal, and thereby indicate the presence of leaks.

The same design can be used as a calorimetric flow sensor, or as an electronic temperature switch.

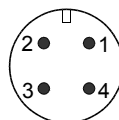
**Technical data**

<b>Sensor</b>	calorimetric measurement principle
<b>Process connection</b>	see "Dimensions"
<b>Measurement accuracy</b>	±2 mm (dependent on contamination)
<b>Repeatability</b>	±1 mm (dependent on contamination)
<b>Medium temperature</b>	-20..+70 °C
<b>Ambient temperature</b>	0..60 °C
<b>Pressure resistance</b>	PN 40 bar, with plastic cone PN 6 bar (Comply with tightening torques!)
<b>Materials medium-contact</b>	Housing 1.4571
<b>Materials non-medium-contact</b>	Plug PA6.6
<b>Supply voltage</b>	24 V DC ±10 % (controlled)
<b>Power consumption</b>	< 2,5 W
<b>Switching output</b>	transistor output "push-pull" (resistant to short circuits and polarity reversal) I <sub>out</sub> = 100 mA max.
<b>LED</b>	yellow LED (On = Normal / Off = Alarm , flashing = programming or error)
<b>Ingress protection</b>	IP 67
<b>Electrical connection</b>	for round plug connector M12x1, 4-pole
<b>Ingress protection</b>	IP 67
<b>Weight</b>	ca. 0.05 kg (excluding screwed connections)
<b>Conformity</b>	CE

**Wiring**



Connection example: PNP NPN

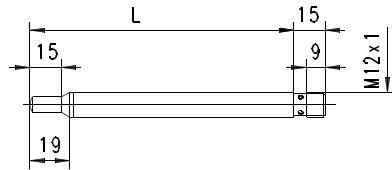


Before the electrical installation, it must be ensured that the supply voltage corresponds to the data sheet. It is recommended to use shielded wiring.

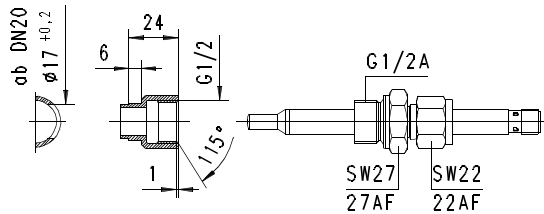
**Product Information**

**LABO-LK012**

**Dimensions**

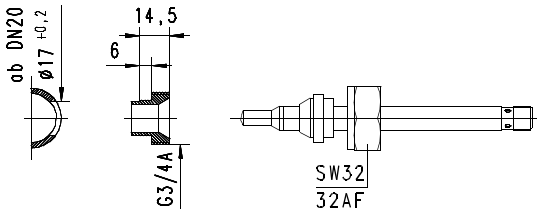


**Optional accessories**



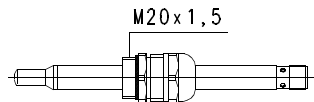
weld-on adapter

crimp screw joint stainless steel



weld-on adapter

conical screw connection plastic



crimp screw joint plastic

**Ordering code**

LABO-LK012 - 1. S 2. 3. K1 4. N 5. 6.

○=Option

<b>1. Limit switch</b>	S	push-pull (compatible with PNP and NPN)
<b>2. Sensor tip length L</b>	100	100 mm
	150	150 mm
	200	200 mm
<b>3. Connection material</b>	K1	stainless steel 1.4571
<b>4. Programming</b>	N	cannot be programmed (no teaching)
<b>5. Switching function</b>	L	minimum-switch
	H	maximum-switch
<b>6. Switching output level</b>	O	standard
	I	<input type="radio"/> inverted

**Options**

**Switching delay** (from Normal to Alarm)  .  s

**Switchback delay** (from Alarm to Normal)  .  s

**Power-On delay** (after connecting the supply, time during which the switching output is not activated)  s

**Special hysteresis** (standard = 2 % EW)  %

If no details are provided when ordering, the standard setting is automatically selected.

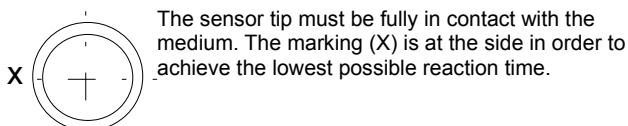
**Accessories**

- Cable/round plug connector (KB...) see additional information "Accessories"
- Device configurator ECI-1
- Screwed connections
- Weld-on adapter

**Handling and operation**

The instrument is preset for the differentiation of air and water. An adjustment to other media is possible using the device configurator ECI-1, which is available as an accessory. It also allows to set many other parameters.

**Installation**



Wherever possible, build-ups of contamination should be removed from the sensor tip, as they can affect the system's sensitivity.