

The new benchmark for precision even with turndown and temperature changes

Pressure, level and volume transmitter L3

L3 sets new standards in measurement accuracy

- Accuracy <0,10% and temperature effect <0,03%/10°C of the calibrated range
- Integrated tank linearization and density compensation
- Simple installation and operation through programming on the display, on-site configuration and Smart Replace Design

With its exceptional performance characteristics, the **L3 sensor** is particularly suitable for **level and volume measurement**. This applies specifically for **smaller vessels or for high and changing process temperatures** for which pressure sensors were previously not considered precise enough.

- High accuracy: **Integrated tank linearization with density compensation** for precise output of volume or mass (kg, l, %...)
- Compact & modular: **Simple, flexible installation** due to small size & on-site component replacement due to modular design
- Flexible: Optional separate version with remote display for **optimum installation and easy monitoring even at inaccessible measuring points**
- Simple: **User-friendly display programming** for commissioning, configuration and maintenance

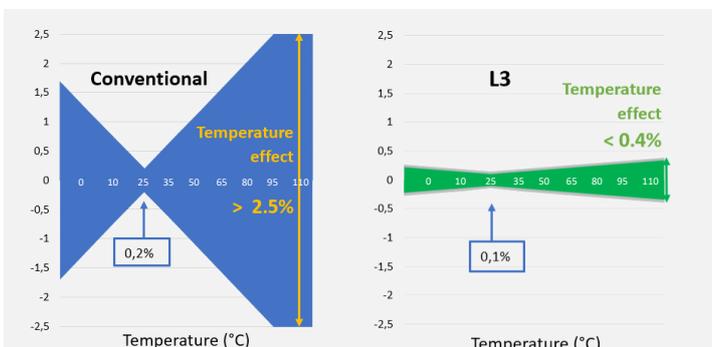
Measurement accuracy:

The L3 is based on the calibrated measuring range, so the **accuracy remains at 0.1%** (5:1 turndown) or 0.15% (10:1 turndown).

Temperature effect:

Conventional sensors show a temperature drift of up to 0.4% per 10°C. At 110 °C, the **temperature effect is over 2.5%**!

The **L3** shows a temperature drift of 0.03% per 10°C due to the calibrated measuring range. At 110°C the **temperature effect is below 0.4%**!



Practical experience / Customer applications

- Hygienic pressure and level monitoring for processes in breweries, dairies and in the food and beverage industry
- Storage tank monitoring for CIP/SIP systems



Technical specifications at a glance

- High-precision hydrostatic level measurement in vessels and process pressure measurement in pipes
- Measuring range 0...0.4 | -1...2 | -1...7 | -1...35 bar, with **selectable calibration range**
- Range with Turndown 1:10 even up to **0...0.04 bar**
- Pressure measurement in tanks and pipes up to **110 °C**; CIP / SIP cleaning up to **135°** for max. 60 min.
- Protection class IP69K for highest **application reliability**
- **Smart Replace Design** with **Remote version** for replacement of all components just by plug-in

Note: Related product for pressurized tanks

Based on the same modular concept as the L3, the **Differential pressure and level sensor D3** offers the same advantages in function, measuring accuracy and user-friendliness for the application in pressurized tanks.



Overview configuration (remote version see product information)

Order code of fully assembled sensor

L3A (Modular pressure sensor)

S (Stem)

Measurement range

- 5** (0...6 psi; 0...0.4 bar)
- 6** (30 "Hg/0/30 psi; -1...2 bar)
- 7** (30 "Hg/0/100 psi; -1...7 bar)
- 8** (30 "Hg/0/500 psi; -1...35 bar)

Process connection/Fitting without 3-A TPV

- 160** (Flexibel thread G1", hygienic CLEANadapt)
- 182** (Fixed thread G1", hygienic CLEANadapt)
- 115** (Dairy flange DIN 11851 DN40)
- 124** (Dairy flange DIN 11851 DN50)
- 181** (DRD flange 65 mm)
- 109** (38 mm SMS Liner (female))
- 110** (51 mm SMS Liner (female))

Process connection/Fitting with 3-A TPV acc. to standard 74-06

- 004** (Tri-Clamp 1½")
- 005** (Tri-Clamp 2")
- 123** (CPM Fitting)
- 154** (Endress & Hauser Universal Adaptor - Short)
- 155** (Endress & Hauser Universal Adaptor - Long)

Capillary fill

- 1** (Mineral oil / FDA approved)
- 5** (Neobee / FDA approved)

Sensor type

- 0** (Compact version)
- A** (Remote with 1.5 m (= 5') cable)
- B** (Remote with 3.0 m (= 10') cable)
- C** (Remote with 4.5 m (= 15') cable)
- D** (Remote with 6.0 m (= 20') cable)
- E** (Remote with 7.5 m (= 25') cable)
- F** (Remote with 15 m (= 50') cable)

E (Enclosure)

Cap

- 2** (Clear plastic)
- 3** (Stainless steel without control window)

Enclosure orientation

- 1** (Vertical)
- 2** (Horizontal)

Electrical connection

- A** (M12 plug)
- C** (Cable gland M16x1.5)
- N** (1/2" NPTF adapter)

Engineering units

- B** (bar)
- L** (mbar)
- P** (psi)

Calibration range

- XXX** (Preset acc. to table on next page)
- 999** (Factory setting acc. to custom calibration)
- 000** (Full measurement range)

Certificate

- X** (No certificate)
- Z** (3.1 inspection certificate and calibration certificate of the stem)

L3A S 5 004 1 0 E 2 1 A P 025 X