

New benchmark for precision even with turndown and temperature changes

L3 Pressure, level and volume transmitter

L3 sets new standards in accuracy

- Accuracy <0.10 % and temperature drift <0.016%/10°F of calibrated measuring range
- Integrated tank linearization and density compensation
- Simple installation and operation through graphical user interface, on-site configuration & Smart Replace Design

With its exceptional performance characteristics, the **L3 sensor** is well suited for **level and volume measurement**. This works especially well in **smaller vessels or those with high and changing process temperatures**, where pressure sensors were previously not considered precise enough.

- High accuracy: **Integrated tank linearization with density compensation** for 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 version with remote display for **optimum installation and easy monitoring at inaccessible measuring points**
- Simple: **User-friendly display programming** for commissioning, configuration and maintenance

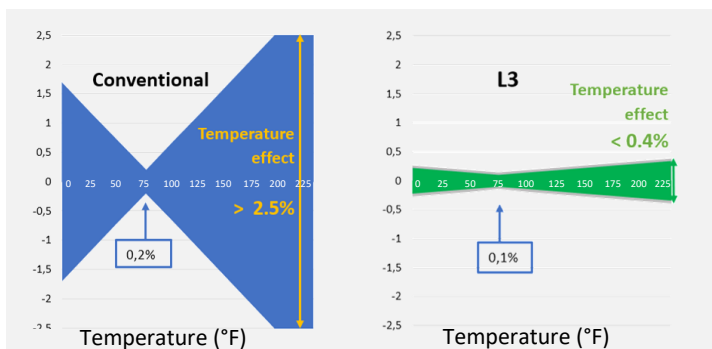
Measurement accuracy:

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 drift:

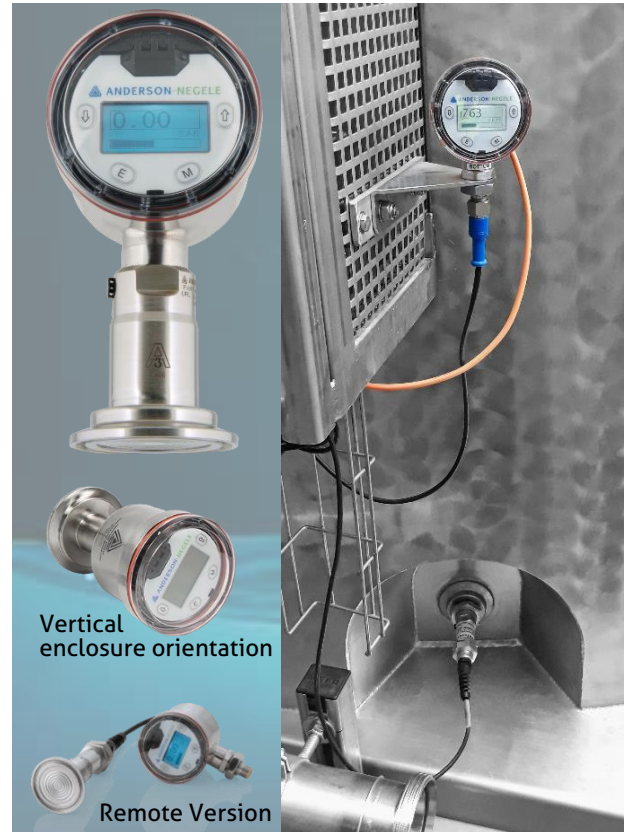
Conventional sensors show a temperature drift of up to 0.2% per 10°F. At 225 °F, the **temperature drift is over 2.5%!**

The **L3** shows a temperature drift of 0.016% per 10°C due to the calibrated measuring range. At 110°C the **temperature effect is below 0.4%!**



Possible applications

- Hygienic pressure and level monitoring for processes in breweries, dairies and in the food and beverage industry



Technical specifications at a glance

- High-precision hydrostatic level measurement in vessels and process pressure measurement in pipes
- Measuring range 0...6 | -14.7...30 | -14.7...100 | -14.7...500 psi, with **selectable calibration range**
- Range with Turndown 1:10 up to **0...0.6 psi**
- Pressure metering in tanks and pipes up to **230 °F**; CIP/SIP cleaning up to **275°F** up to 60 min.
- Protection class up to **IP69K** for **reliability**
- **Smart Replace Design** with **Remote version** for hassle free replacement of all components

Note: Alternative 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 pressurized tanks.



L3A Sensor assembled

S Standard Stem

URL

5 0...6 PSI, 0...0.4 BAR, 0...166" w.c.
6 30"Hg/0/30 PSI, -1...2 BAR, -400...830" w.c.
7 30"Hg/0/100 PSI, -1...7 BAR, -400...2770" w.c.
8 30"Hg/0/500 PSI, -1...35 BAR, -400...13850" w.c.

3-A compliant fittings

004 1-1/2" Tri-Clamp®
005 2" Tri-Clamp®
006 2½" Tri-Clamp®
007 3" Tri-Clamp®
123 AIC CPM Flush Mount*
088 Anderson Flush Mount Short (71060-A4, A6, A8)
089 Anderson Flush Mount Long (71060-A3, A5, A7, A9)
092 King Gage Flush Mount Long (1777-3)
093 King Gage Flush Mount Medium (1777-1, -6 Standard)
094 King Gage Flush Mount Short (1777-2 non-insulated)
141 Rosemount/Foxboro Sanitary Spud - Short
142 Rosemount/Foxboro Sanitary Spud - Long
154 Endress & Hauser Universal Adaptor - Short
155 Endress & Hauser Universal Adaptor - Long

Fittings not 3-A compliant

160 G1" CLEANadapt
059 1-1/2" NPT
182 G1" Fixed Thread
109 38mm SMS Liner (female)
110 51mm SMS Liner (female)
115 40mm DIN 11851 (Milk Coupling)
124 50mm DIN 11851 (Milk Coupling)
180 M38x1.5
181 DRD

* Sensor is 3A compliant when installed in a 3A compliant instrument tee

Capillary fill

1 Mineral oil
5 Neobee

Remote cable

O Integral
B 10' Cable
E 25' Cable

E Enclosure

Cap

2 Clear
3 Stainless steel

Enclosure orientation

1 Vertical
2 Horizontal

Electrical connection

A M12 QDR
C Cable gland
N 1/2" NPTF adaptor

Engineering units

P PSI
B BAR
W inches of water
L millibar

Calibration range

000 Full range of stem URL
999 Custom range
XXX see calibration range table

L3A S 6 004 1 0 E 2 1 A P 000