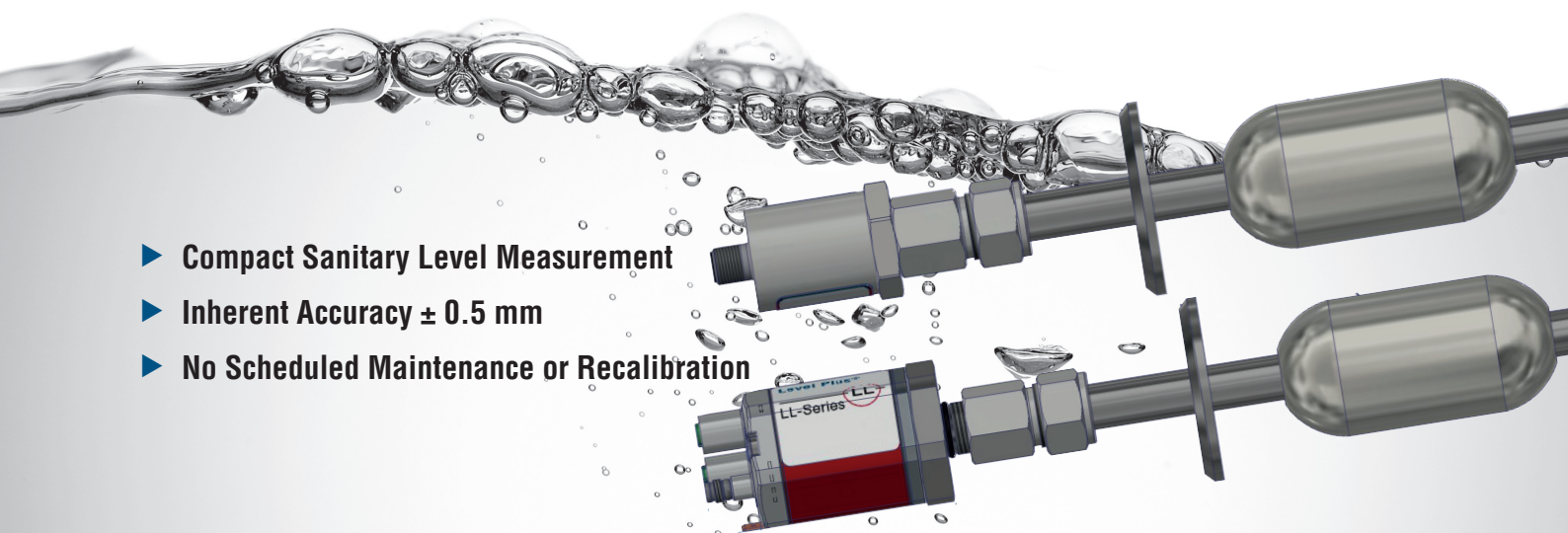


## Product Brief

# Level Plus<sup>®</sup> Model LLH

Magnetostrictive Liquid Level Transmitters with Temposonics<sup>®</sup> Technology

- 
- ▶ **Compact Sanitary Level Measurement**
  - ▶ **Inherent Accuracy  $\pm 0.5$  mm**
  - ▶ **No Scheduled Maintenance or Recalibration**

The Level Plus LLH satisfies the demand for an accurate and robust liquid level transmitter for sanitary/hygienic applications. The LLH can provide product level and/or interface level in a compact mechanical design. There is no requirement for scheduled maintenance or recalibration for the expected 10 year life of the sensor. ***Set it and Forget it.***

The LLH liquid level transmitter can be mounted on most tanks offering NPT and Tri-Clamp connections from  $\frac{3}{4}$  to 6 inches. The LLH also offers a variety of outputs including Analog, CANbus, SSI, IO-Link, POWERLINK, PROFINET, EtherNet/IP™ and EtherCAT®. Included in the model number is the selection of the float and cable. The single model offers everything needed for level measurement in a variety of sanitary applications.

### FEATURES

- Sanitary Finish Ra 25 uin (0.64  $\mu$ m)
- Product and Interface Level
- No scheduled maintenance or recalibration
- Inherent Accuracy  $\pm 0.5$  mm
- IP69K
- 100 g Shock/15 g Vibration

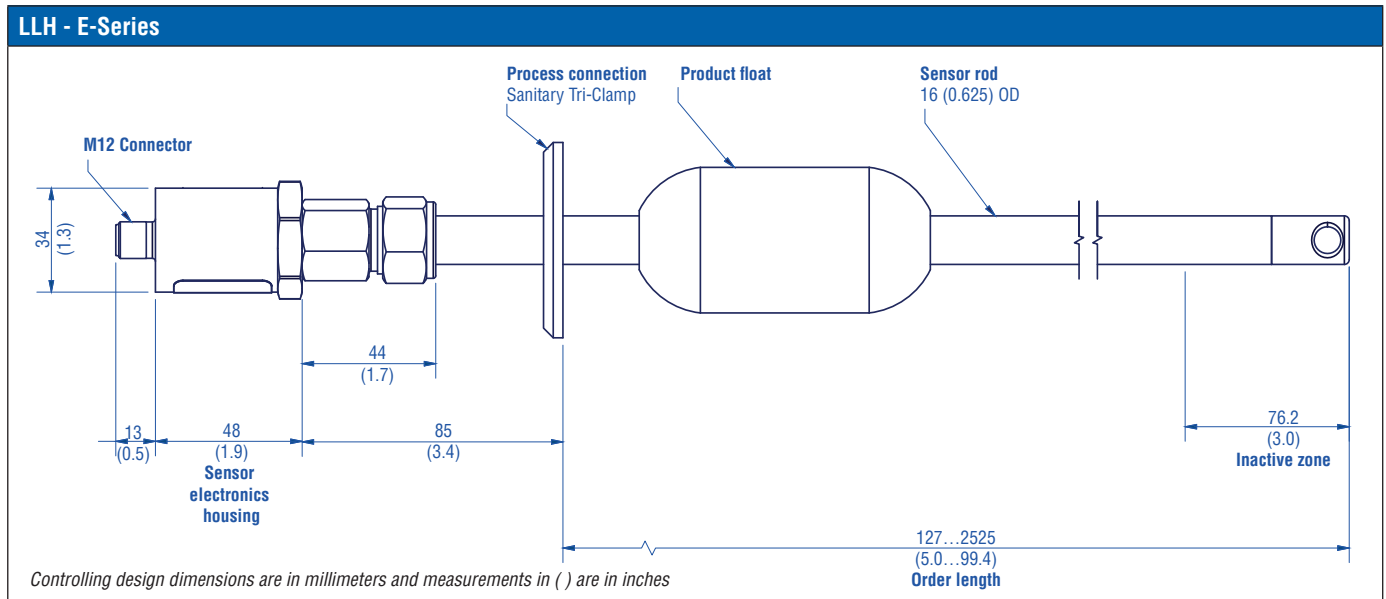
### APPLICATIONS

- Bottle filling machines
- CIP tanks
- Skids
- Balance tanks
- Fermentation tanks
- Dispensing

## TECHNICAL DATA

Output Options	
Voltage	0...10 VDC or 10...0 VDC, 0...10 VDC and 10...0 VDC (controller input resistance $R_L > 5 \text{ k}\Omega$ )
Current	4...20 mA or 20...4 mA (minimum/maximum load: 0/500 $\Omega$ )
SSI (Synchronous Serial Interface)	Binary or Gray, 24 or 25 bit
CANbus	CANopen: CIA standard DS 301 V3.0/encoder profile DS 406 V3.1, CAN System ISO-11898
IO-Link	V1.1, 32 bit signed, COM3 (230.4 kBaud)
EtherCAT®	100 Base-Tx, Fast Ethernet, 100 MBits/s max
POWERLINK	Ethernet POWERLINK V2
EtherNet/IP™	Encoder CIP device profile with CIP Sync and DLR capabilities, 100 MBits/s max
PROFINET	PROFINET RT, PROFINET IRT version 2.3, Temposonics Profile & Encoder Profile 4.1, 100 MBits/s max
Measured value	Product Level and/or Interface Level
Measurement parameters	
Resolution	0.1 mm or greater
Inherent accuracy	$\pm 0.5 \text{ mm}$
Operating conditions	
Operating temperature	-40...+75 °C (-40...+167 °F)
Design/Material	
Sensor electronics housing/flange	Stainless steel 1.4305 (AISI 303); option: Stainless steel 1.4404 (AISI 316L)
Wetted parts	Stainless steel 1.4404 (AISI 316L) Ra 25 $\mu\text{m}$ . (Ra 0.625 $\mu\text{m}$ )
Order length	127 to 2525 mm (5.0 to 99.4 in)
Operating pressure	5/8" O.D. 69 bar (1000 psi)

## TECHNICAL DRAWING



### Document Part Number

552148 Revision A (EN) 11/2022

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