

**Overview**



SITRANS LU150 is a short-range integrated ultrasonic level transmitter. This general purpose, 2-wire, 4 to 20 mA loop powered transmitter is ideal for liquids, slurries, and bulk materials in open or closed vessels to 5 m (16.4 ft).

**Benefits**

- Easy to install, program, and maintain
- Accurate and reliable
- Sanitary models available
- Patented Sonic Intelligence echo processing
- Integral temperature compensation

**Application**

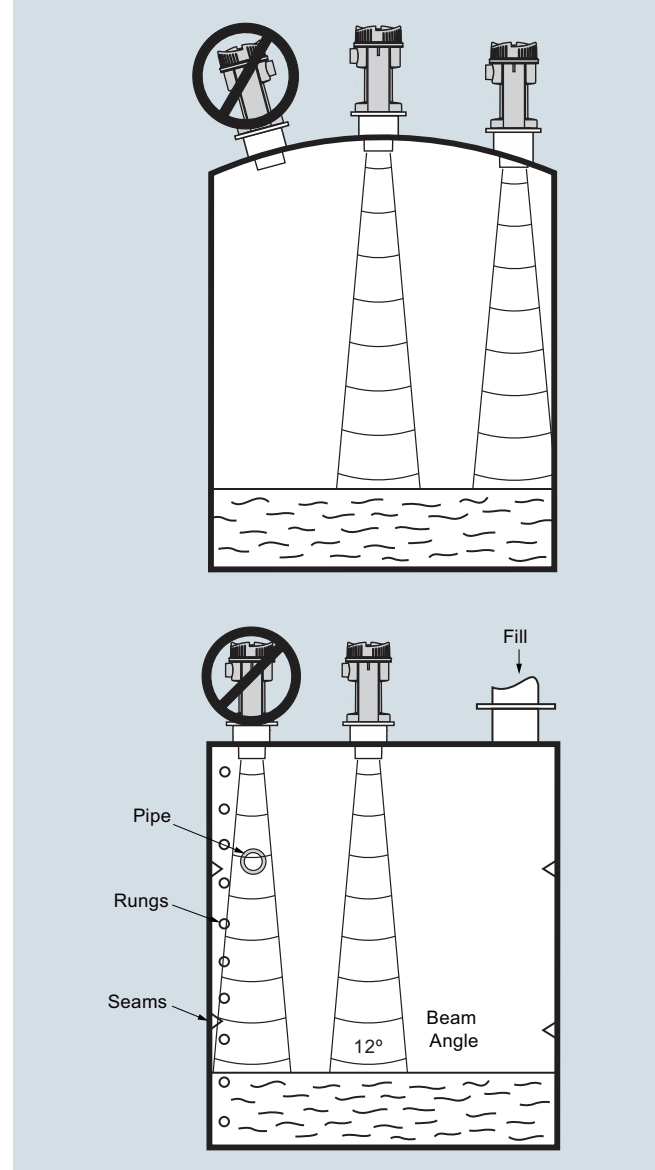
The transducer is available in PVDF copolymer, making the device suitable for use in a wide variety of applications.

SITRANS LU150 is easy to install and maintain, and can be quickly removed for cleaning as required by the food, beverage and pharmaceutical industries.

The reliability of the level data is based on the Sonic Intelligence echo processing algorithms. A filter discriminates between the true echo and false echoes from acoustic or electrical noises and agitator blades in motion. The ultrasonic pulse propagation time to the material and back is temperature-compensated and converted into distance for display, analog output.

- Key Applications: chemical storage vessels, filter beds, mud pits, liquid storage vessels, food applications

**Configuration**



SITRANS LU150 mounting

## Level Measurement

Continuous level measurement - Ultrasonic transmitters

### SITRANS LU150

#### Technical specifications

| Mode of Operation              |  |
|--------------------------------|--|
| Measuring principle            | Ultrasonic level measurement   |
| Input                          |  |
| Measuring range                | 0.25 ... 5 m (0.8 ... 16.4 ft)   |
| Frequency                      | 54 kHz   |
| Output                         |  |
| mA                             | 4 ... 20 mA  |
| • Span                         | Proportional/ inversely proportional   |
| • Max. load                    | 600 Ω in the loop at 24 V DC   |
| Power supply                   |  |
| Supply voltage                 | 12 ... 30 V DC, 0.1 A surge  |
| Max. power consumption         | 0.75 W (25 mA at 24 V DC)  |
| Certificates and approvals     |  |
|                                | CE, CSA <sub>US/C</sub>  |
| Accuracy                       |  |
| Error in measurement           | 0.25 % of measuring range (in air)   |
| Resolution                     | 3 mm (0.125 inch)  |
| Temperature compensation       | Built in   |
| Echo processing                | Sonic Intelligence   |
| Rated operation conditions     |  |
| Beam angle                     | 12°  |
| Ambient temperature            |  |
| • Standard                     | -30 ... +60 °C (-22 ... +140 °F)   |
| • Metallic mounting            | -20 ... +60 °C (-4 ... +140 °F)  |
| Max. static operating pressure | Normal atmospheric pressure  |
| Design                         |  |
| Weight                         | 1.3 kg (2.9 lb)  |
| Material                       |  |
| • Electronics enclosure        | PBT  |
| • Transducer                   | PVDF copolymer   |
| Degree of protection           | IP68 / NEMA 6 / TYPE 6   |
| Process connection             | <ul style="list-style-type: none"> <li>• 2" NPT [(Taper), ANSI/ASME B1.20.1]</li> <li>• R 2" [(BSPT), EN 10226]</li> <li>• G 2" [(BSPP), EN ISO 228-1]</li> <li>• 4" sanitary</li> </ul> |
| Flange adapter                 | 3" Universal, (fits DN 65, PN 10 and 3" ASME)  |
| Cable inlet                    | 1 inlet for M20, optional 1/2" NPT   |

#### Selection and Ordering data

##### SITRANS LU150

Short-range integrated ultrasonic level transmitter, general purpose, 2-wire, 4 to 20 mA loop powered ideal for liquids, slurries, and bulk materials in open or closed vessels to 5 meters (16.4 feet)

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

##### Transducer/Process connection (PVDF)

PVDF copolymer, 2" NPT [(Taper), ANSI/ASME B1.20.1] E  
 PVDF copolymer, R 2" [(BSPT), EN 10226] F  
 PVDF copolymer, G 2" [(BSPP), EN ISO 228-1] G  
 PVDF copolymer, 4" Sanitary mounting J

##### Cable inlet

M20 x 1.5 [General Purpose cable gland -20 ... +60 °C (-4 ... +140 °F) included] B  
 1/2" NPT stainless steel entry (no cable gland included) C

◆ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ◆. For details see page 10/11 in the appendix.

Article No.

7ML5201-

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#### Selection and Ordering data

Order code

##### Further designs

Please add "-Z" to Article No. and specify Order code(s).

Stainless steel tag [13 x 45 mm (0.5 x 1.75 inch)]: Measuring-point number/ identification (max. 20 characters) specify in plain text

Y15

Test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000

C11

##### Operating Instructions

Article No.

English

A5E34590123

German

A5E36369862

Note: Operating instructions should be ordered as a separate line on the order

All literature is available to download for free, in a range of languages, at <http://www.siemens.com/processinstrumentation/documentation>

##### Accessories

Tag, stainless steel, 12 x 45 mm (0.47 x 1.77 inch), one text line

7ML1930-1AC

Universal Box Bracket Mounting kit

7ML1830-1BK

Sanitary 4" mounting clamp

7ML1830-1BR

3" ASME, DN 65 PN 10, JIS 10K 3B ETFE Flange adapter for 2" NPT

7ML1830-1BT

3" ASME, DN 65 PN 10, JIS 10K 3B ETFE Flange adapter for 2" BSPT

7ML1830-1BU

2" NPT locknut, plastic

7ML1830-1DT

2" BSPT locknut, plastic

7ML1830-1DQ

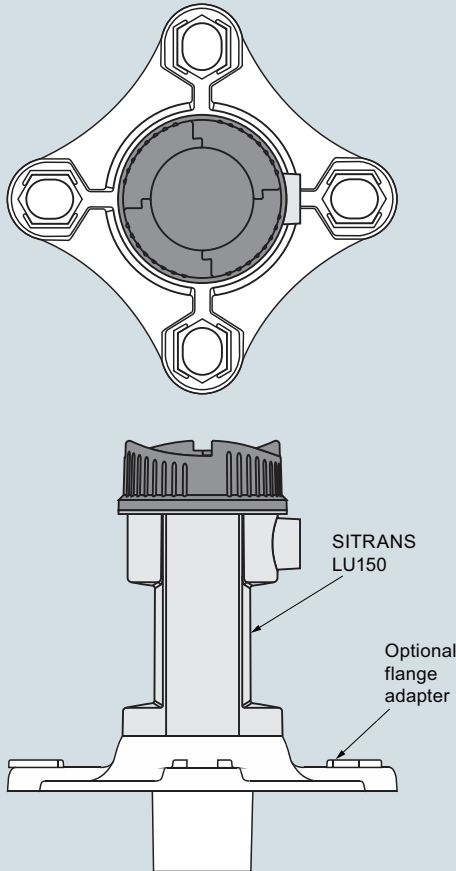
Cable Gland - General Purpose -20 ... +60 °C (-4 ... +140 °F)

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**Options**

**SITRANS LU150, Flange Adapter**

The SITRANS LU150 can be fitted with the optional 75 (3) flange adapter for mating to 3" ANSI, DIN 65 PN10 and JIS 10K3B flanges.



SITRANS LU150 optional flange adapter, dimensions in mm (inch)

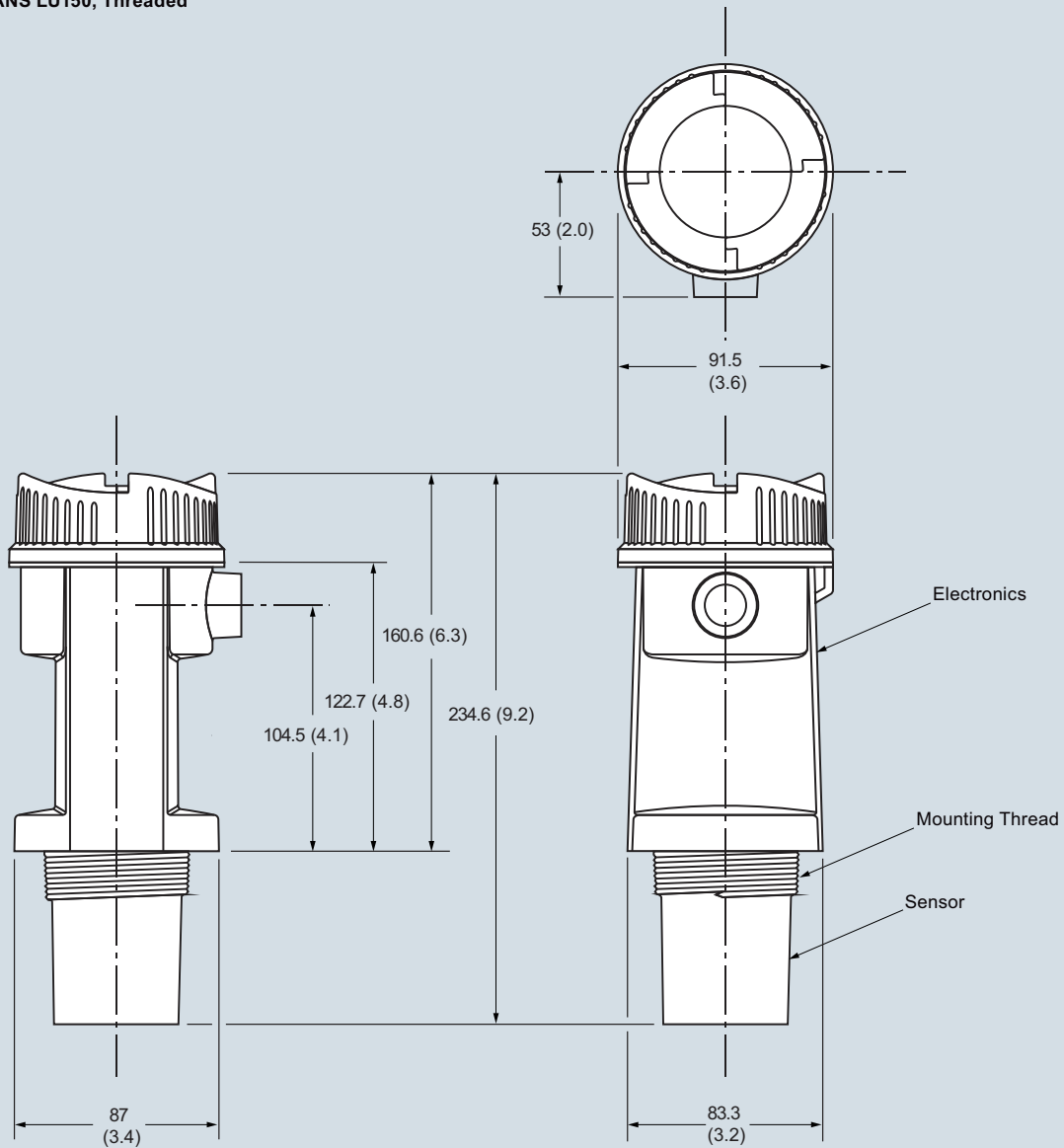
# Level Measurement

Continuous level measurement - Ultrasonic transmitters

## SITRANS LU150

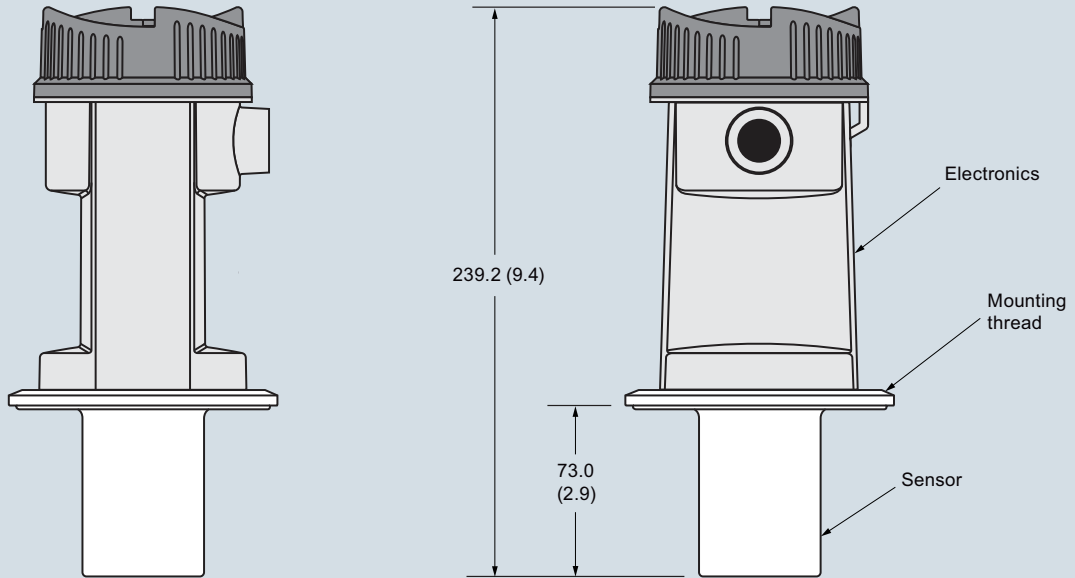
### Dimensional drawings

SITRANS LU150, Threaded



SITRANS LU150, dimensions in mm (inch)

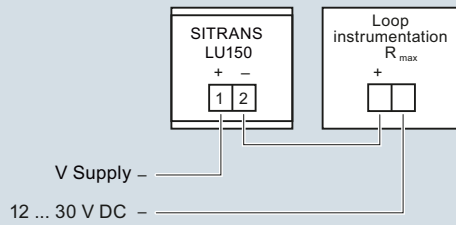
**SITRANS LU150, Sanitary**



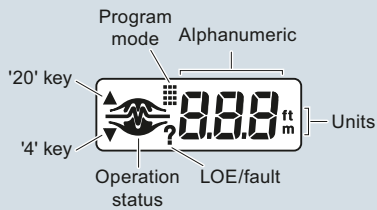
SITRANS LU150, dimensions in mm (inch)

**Schematics**

**Threaded and Sanitary models**



**Display**



SITRANS LU150 connections