

# spirax/sarco®

## LT 2010 Level Transmitter

- Versatile, simple 0-20 or 4-20mA transmitter
- Isolated output
- 115V or 230V supply
- Self-powered, provides supply to probe

### Description

The Spirax Sarco LT 2010 is a level transmitter which converts the voltage output from a Spirax Sarco capacitance probe into an isolated 0-20 or 4-20mA signal proportional to water level. The output can be scaled to represent any desired water level range, the gauge glass for example.

Two or more transmitters may be used with a single capacitance probe if required.

The LT 2010 can also power and be used with any two-wire 4-20mA transmitter, for example for pressure, temperature, or level transmission using a pressure or differential pressure transmitter.

An inverse output can be selected for level monitoring with a differential pressure transmitter.

The transmitter has LED indication of mains-on, zero point, and span settings, and a wave filter function which gives an averaged output, maintaining a stable signal under the very different turbulence conditions found in tanks and high output boilers.

The LT 2010 is set up before installation to suit the mains supply voltage and to provide the required functions, using internal switches. Calibration can be altered without removing or dismantling the unit, using the zero point and full scale/span potentiometers on the front panel.

### Applications

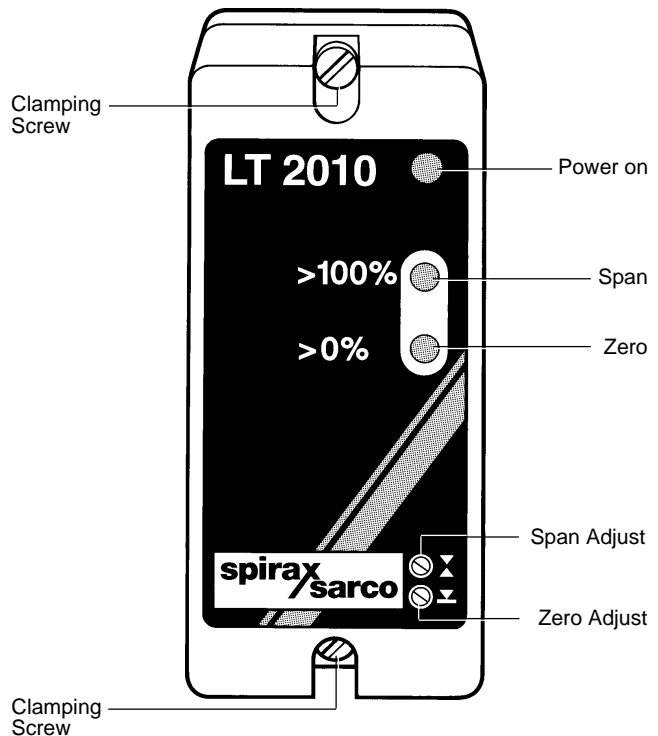
The LT2010 has many applications, including steam boilers, tanks, and other vessels.

Examples of uses for steam boiler plant are:-

- Remote transmission of steam boiler water level to a digital or bar type indicator or level switch.
- Proportional chemical dosing of boilers with modulating feedwater control, by re-transmitting the modulating valve position.
- Indicating levels, percentages, units of volume (in tanks of regular section), in conjunction with a display unit such as the Spirax Sarco DS 1000.
- Boiler house or building management systems.

### Limiting conditions

Enclosure rating	IP 40
Maximum ambient temperature	130°F (55°C)
Maximum cable length (controller to probe)	300ft (100m)



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## Installation

**WARNING:**-Isolate the mains supply before unplugging the transmitter as live terminals at mains voltage will be exposed in the transmitter base.

The transmitter should be installed in an enclosure or control panel to provide environmental protection. Spirax Sarco can provide suitable enclosures. The transmitter may be mounted on a 'top hat' section DIN rail using the mounting clip provided, or the clip may be removed and the transmitter base screwed direct to a chassis plate.

Screened cable is required for the probe. A suitable cable is Pirelli FP200 or Delta Crompton Firetuf OHLS, 3-core 1mm<sup>2</sup>.

The same type of cable may also be used for the mains wiring and 0/4-20mA output. The wiring diagram, selection switch settings, and adjustments are given in the Installation and Maintenance Instructions supplied with each transmitter.

## Technical data

### Mains supply voltage

230V setting	198V-264V
115V setting	99V-121V
Frequency	50-60Hz
Maximum power consumption	6VA

### Selectable inputs:-

0-6V  
0-2V  
4-20mA  
0-20mA

### Output (Isolated):-

0-20mA into 1k $\Omega$  max.  
4-20mA into 1k $\Omega$  max.

Zero set range	0%-100% of input
Span set range	5%-100% of input

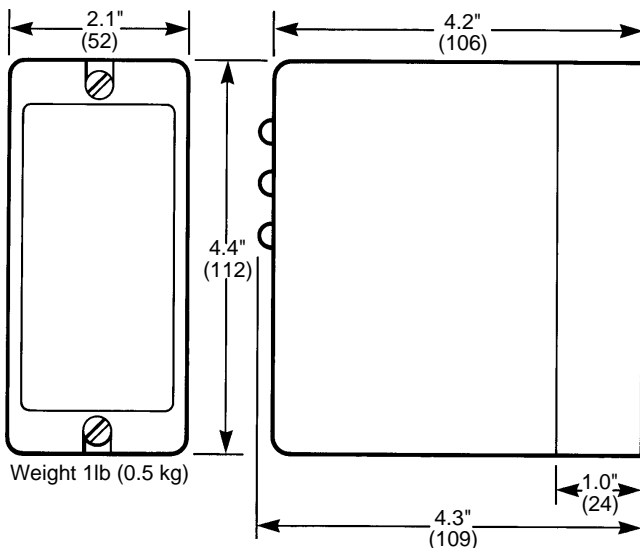
### Band width:-

Designed for slowly varying input signals:-	
Standard response	0.07 Hz. band width
Delayed response	0.02 Hz. band width
Transducer supply	24-37Vdc 20mA max. Short circuit protected

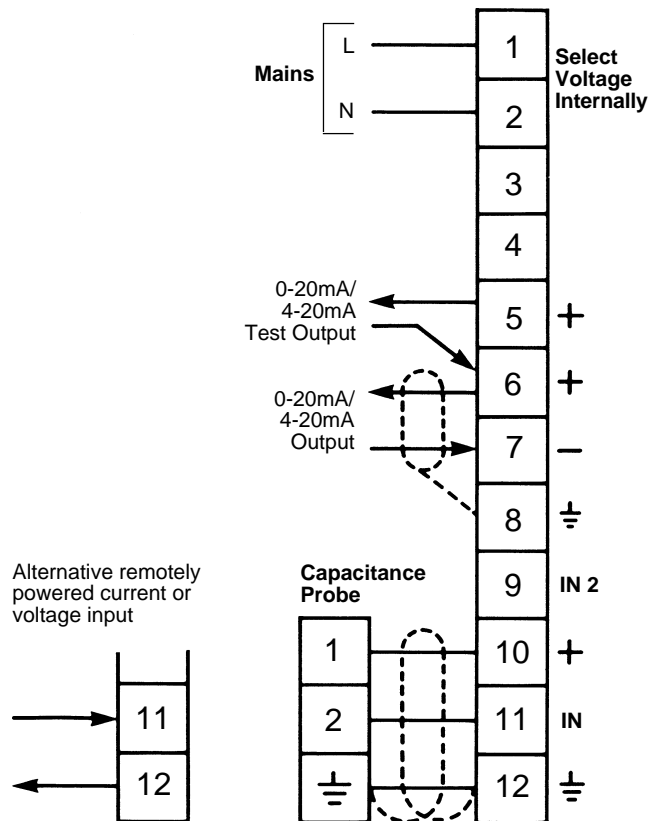
### Features:-

Wave filter function	(Delayed response)
Reverse output	(20-4/0mA)

## Dimensions (approximate) in inches and millimetres



## General wiring diagram



## How to specify

Dual voltage, self-powered 0/4-20mA level transmitter with adjustable output.

## How to order

Spirax Sarco LT2010 Transmitter

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