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ISO 9001

spirax/sarco

TI-P402-61
AB Issue 3

LT2010 Level Transmitter

- Versatile, simple 0-20 or 4-20 mA transmitter
- Isolated output
- 110 V or 240 V supply
- Self-powered, provides supply to probe

Description

The Spirax Sarco LT2010 is a level transmitter which converts the voltage output from a Spirax Sarco capacitance probe into an isolated 0-20 or 4-20 mA 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 LT2010 can also power and be used with any two-wire 4-20 mA 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 LT2010 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:

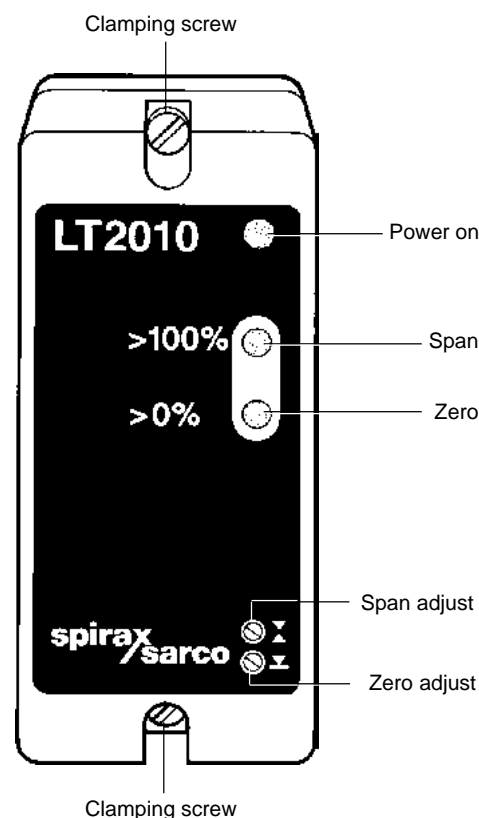
- Remote transmission of steam boiler water level to a digital or bar type indicator or level switch.
- Proportional chemical dosing of boilers with modulating feedwater control, by re-transmitting the modulating valve position.
- Indicating levels, percentages, units of volume (in tanks of regular section), in conjunction with a display unit such as the Spirax Sarco DS1000.
- Boiler house or building management systems.

Limiting conditions

Enclosure rating	IP40
Maximum ambient temperature	55°C
Maximum cable length (controller to probe)	100 m

Materials

Enclosure base and connector	NORYL SE1 GFN2
Enclosure cover and intermediate plate	R-ABS 90.00



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 1 mm².

The same type of cable may also be used for the mains wiring and 0/4-20 mA 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

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

Selectable inputs

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

Output (Isolated)

	0 - 20 mA into 1 k Ω max.
	4 - 20 mA into 1 k Ω max.
Zero set range	0% - 100% of input
Span set range	5% - 100% of input

Band width:-

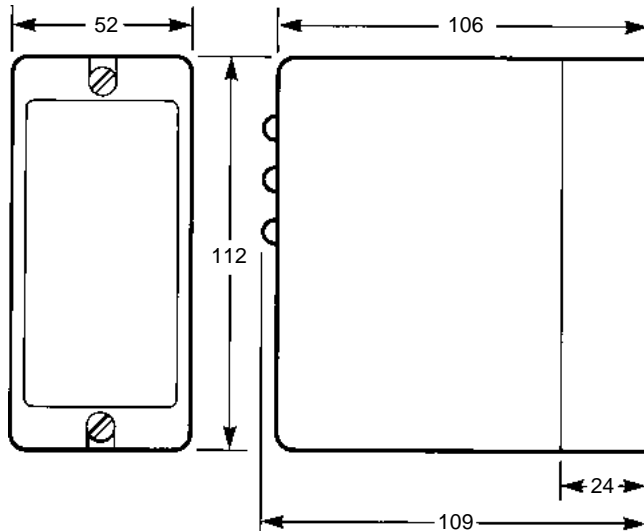
Designed for slowly varying input signals:-

Standard response	0.07 Hz. band width
Delayed response	0.02 Hz. band width
Transducer supply	24 - 37 Vdc 20 mA max. Short circuit protected

Features:-

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

Dimensions (approximate) in millimetres



Weight 0.5 kg

How to specify

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

How to order

Example: 1 off Spirax Sarco LT2010 level transmitter.

General wiring diagram

