



Cert. No. LRQ 0963008

ISO 9001

# spirax/sarco

TI-P402-73  
AB Issue 4

## LC2200 Level Controller

### Description

The Spirax Sarco LC2200 is used to control an electrically actuated valve in response to a signal from a capacitance probe, providing proportional modulating control of liquid levels. It can be used for level control of boilers, de-aerators, and tanks.

The controller can also be used with any two-wire 4-20 mA transmitter, for example for pressure, temperature, or level control using a pressure or differential pressure transmitter.

A dc power supply for a two-wire transmitter is included.

The LC2200 has an alarm output, which can be set high or low, and has a filter which allows accurate alarm signalling under varying turbulence conditions. The controller also has an 'out of range' alarm which releases the alarm relay if the probe or wiring is damaged or has been incorrectly wired, enabling prompt action to be taken to rectify any potentially dangerous situation.

The LC2200 has a three stage level wave filter (input signal damping). This switch-selectable feature gives an averaged output, maintaining a stable signal under the very different turbulence conditions found in tanks and high output boilers.

A green LED at the top of the front panel indicates power on.

A test button is provided below the red alarm LED to check the alarm output.

The green (>50%) LED indicates that the level is higher than 50%. i.e. above the set point.

The amber (>100% / <0%) LED indicates that the level is outside the proportional band.

The LC2200 is set up before installation to suit the mains supply voltage and to provide the required functions, using internal switches. Calibration of set point and proportional band is carried out using the potentiometers on the front panel, so calibration can be altered if required without removing or dismantling the unit.

This product complies with the requirements of the Electromagnetic Compatibility Directive 89/336/EEC by meeting the standards of:

- Emissions EN 61326: 1997 A1 and A2 Class B equipment Table 4.
- Immunity EN 61326: 1997 A1 and A2 Industrial Locations.

### Principal features :

- Proportional level controller for electrically actuated valves.
- Three stage wave filter - wide turbulence tolerance.
- High or low alarm as standard.
- Control levels may be altered without de-commissioning boiler.
- Valve positioner built-in.

### Materials

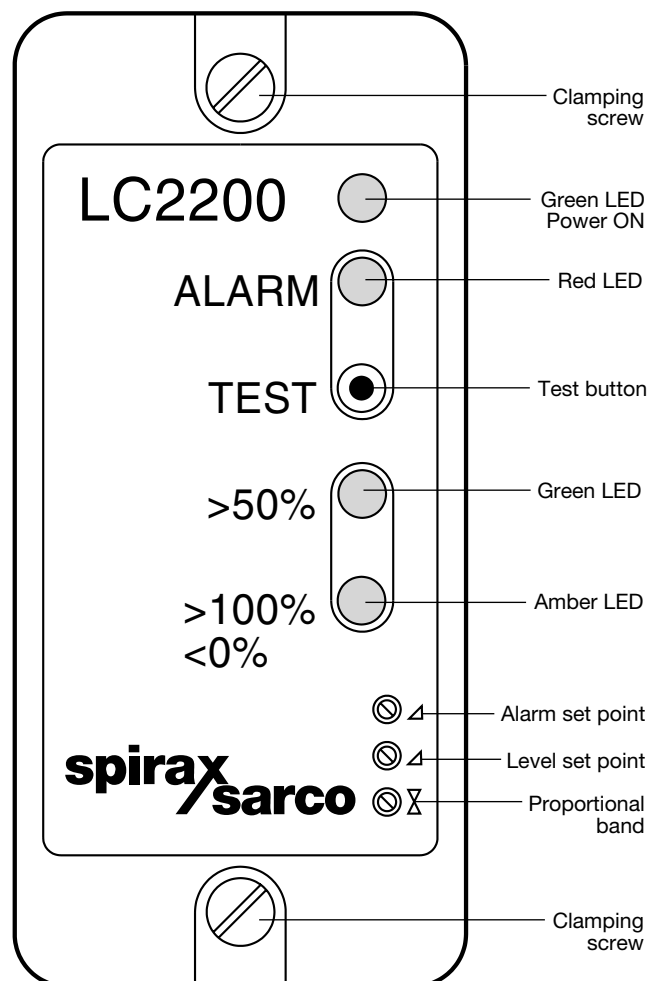
Enclosure base	ABS CYCOLAC
Connector	NORYL SE1
Enclosure cover and intermediate plate	R - ABS 90.00

### Limiting conditions

Ambient temperature	Maximum	55°C
	Minimum	0°C
Pollution degree		2
Oversvoltage category		II
Indoor use only		
Altitude up to		2 000 m
Humidity	Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C	
Enclosure protection rating		IP40
Maximum cable length (controller to probe)		100 m

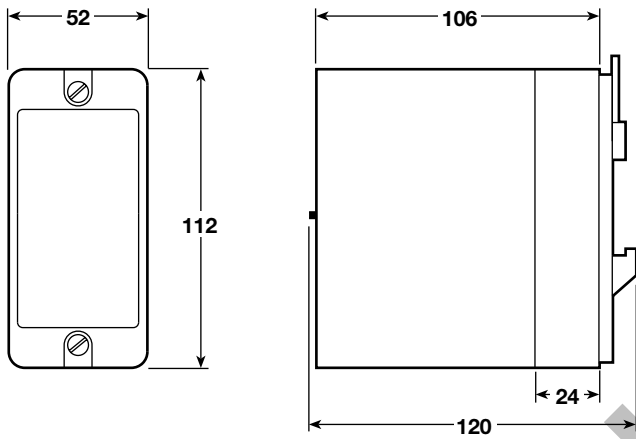
### Technical data

Mains supply voltage	230 V setting	198 V - 264 V
	115 V setting	99 V - 132 V
Frequency		50 - 60 Hz
Fuse type	20 mm cartridge, 100 mA anti-surge (T).	
Maximum power consumption		3 VA



**Dimensions/weight (approximate) in millimetres and g**

**Weight** 500



**Safety information, installation and maintenance**

This document does not contain sufficient information to install the product safely. See the Installation and Maintenance Instructions supplied with the product.

**Warning:**

Isolate the mains supply before unplugging the controller as live terminals at mains voltage will be exposed in the controller base.

**Installation note:**

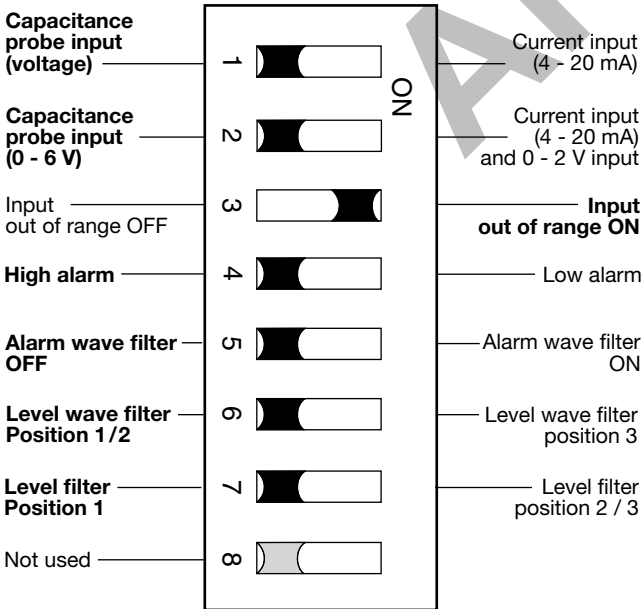
The controller must be installed in an enclosure or control panel to provide environmental and impact protection.

Spirax Sarco can supply suitable enclosures. Allow 15 mm spacing between multiple units for air circulation. The controller may be mounted on a 'top hat' DIN rail using the mounting clip provided or the clip may be removed and the controller base screwed direct to a chassis plate.

Full wiring, commissioning and operating instructions are given in the Installation and Maintenance Instructions supplied with the controller.

**Switch selectable options**

The LC2200 is supplied with the switches set as indicated on the diagram in bold type:



**How to specify**

Proportional level controller for electrically actuated valves with alarm output, three stage wave filter and out of range alarm.

**How to order**

**Example:** 1 off Spirax Sarco LC2200 level controller.