

LP 30 Self Monitoring Level Probe

- High integrity, self-monitoring low level alarm probe.
- Suitable for pressures up to 464 psig, 462°F (32 barg, 239°C)
- No maintenance required.
- Positively retained probe tip.

Description

The Spirax Sarco LP 30 level probe is used with a Spirax Sarco LC3000 level controller to provide a high integrity, self monitoring low level alarm signal, usually in a steam boiler. It consists of a probe body with a removable cable socket, and a separate screw on probe tip which is retained by a lock nut and pin.

The probe has a level sensing tip (probe tip), and a comparator tip. The ground path is via the body connection.

Under normal operating conditions the probe tip is partially immersed, and the resistance to ground is low. When the water level drops below the probe tip the resistance to ground becomes high, causing the controller to give a low level alarm signal.

The comparator tip compensates for any leakage to ground caused by scale, dirt, or internal moisture, ensuring a low water alarm signal even under adverse conditions. A DIN 43650 cable socket with 1/2" NPT conduit thread and four 18AWG wires are supplied with the unit.

Limiting Conditions

Maximum boiler pressure	464 psig (32 barg)
Maximum temperature	462°F (239°C)
Hydraulic pressure test	860 psig (60 barg)
Maximum ambient temperature	158°F (70°C)
Maximum probe cable length	165 ft (50m)
Cable socket protection rating	IP65

Installation

The probe is designed to work with a Spirax Sarco LC3000 controller. Two probes and controllers are normally fitted in steam boilers, giving low and auxiliary low alarms.

A protection tube is required for boiler shell or turbulent tank fitting.

Install the probe in a 1/2" NPT female connection.

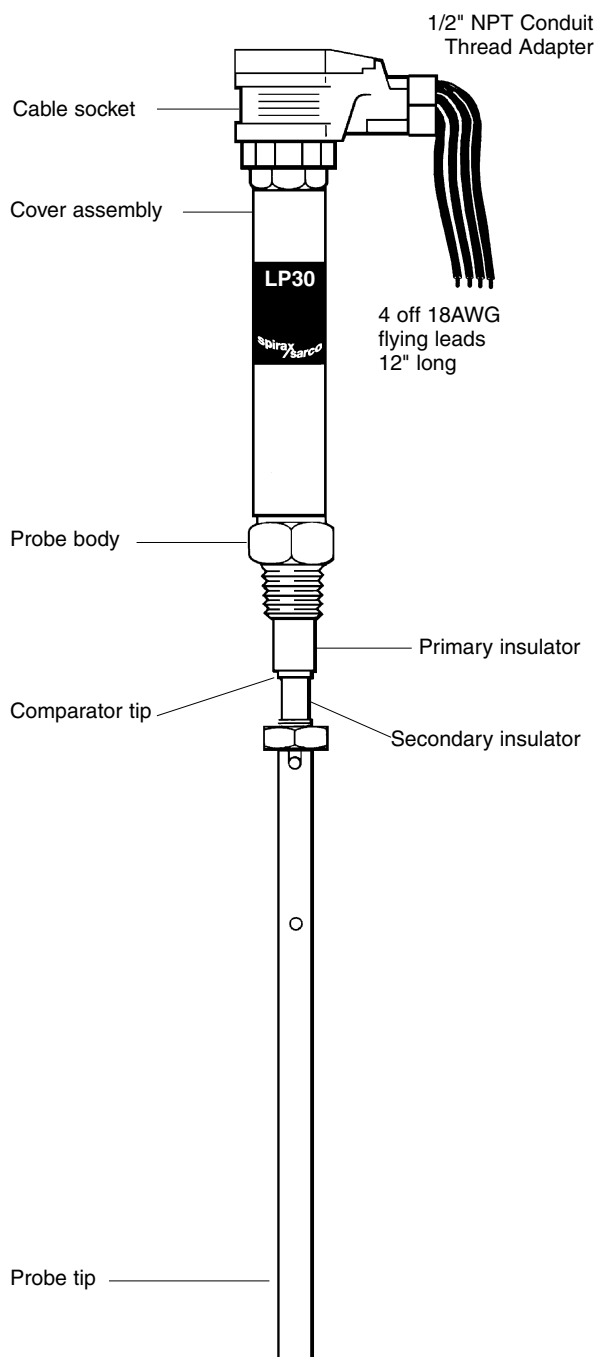
Full installation and wiring instructions are given in separate literature.

WARNING: It is essential that the probe tip of the LP30 low level alarm probe does not touch any part of the boiler. Standards require that the tip is at least 9/16" from the protection tube, and this must be checked when the probe is installed. The product is supplied with a clearance checking set for this purpose. The accompanying Installation and Maintenance Instructions include a clearance checking procedure and a record sheet. Spare clearance checking sets are available, stock no. 4024781

Maintenance

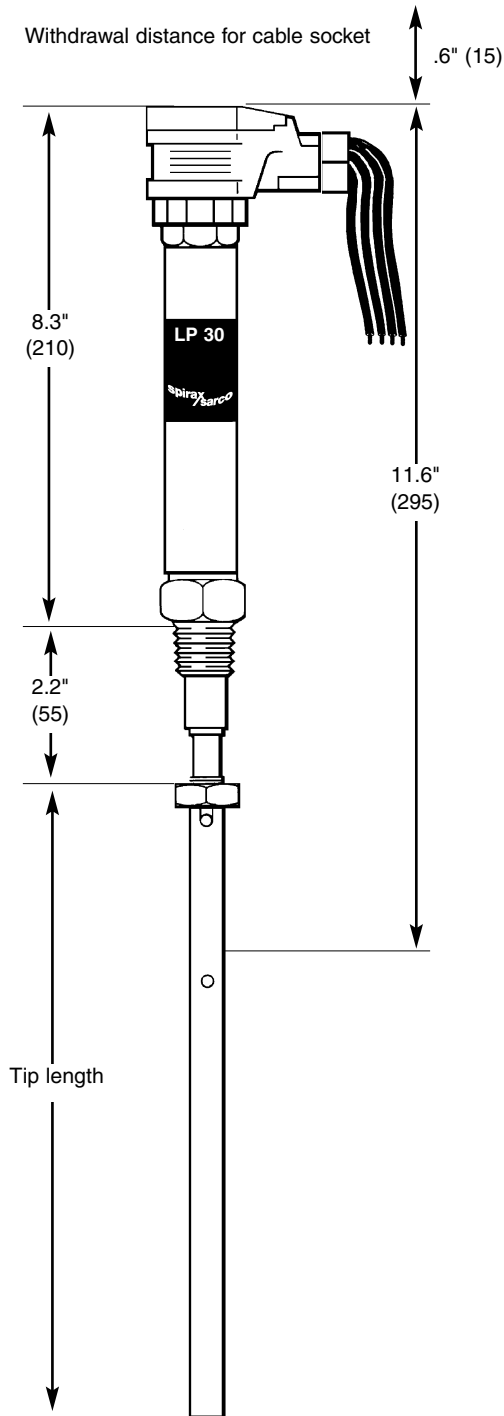
No special maintenance is required.

Boiler water level controls do, however, require periodic testing and inspection, which is described in separate literature.



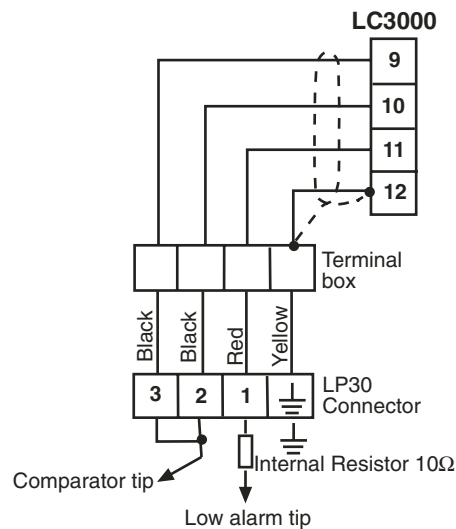
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Dimensions (approximate) in inches and millimeters



Materials

Description	Material
Probe body	Austenitic stainless steel Type 316Ti DIN 17440 Ws.Nr.1.4571
Cover assembly	Austenitic stainless steel Type 316L
Nameplate	Aluminum foil
Cable socket & probe Connector	Polyamide (Glass filled)
Connector gasket	Silicone elastomer
Comparator tip	Austenitic stainless steel Type 316L
Primary insulator & Secondary insulator	PTFE BS 6564 Grade UA Type 1
Retaining pins	Austenitic stainless steel Type 302/304
Probe tip	Austenitic stainless steel Type 316L
Locknut	Austenitic stainless steel BS6105A4 80
Flying leads	Copper conductor, PVC insulation 18AWG CSA TEW105°C, UL1015 105°C, 600V



How to specify

Self monitoring level probe with positive probe tip locking design.

How to order

Spirax Sarco UL LP30 (1/2" NPT) self monitoring level probe

Approvals

UL	UL353
United States Standard	Limit Controls MH25452
ULC	C22.2 No. 24-93
Canadian Standard	MH25452

Available lengths

Tips are available in lengths of 19.7" (500 mm), 39.4" (1000 mm), 59.1" (1500 mm).

WEIGHT (approximate) including immediate packaging

Probe	1 lb (.52 kg)
19.7" (500mm tip)	.6 lb (.28 kg)
39.4" (1000mm tip)	1.2 lb (.55 kg)
59.1" (1500mm tip)	3.6 lb (.8 kg)