



LP11-4 Level Probe

Description

The Spirax Sarco LP11-4 level probe is used with the Spirax Sarco LCS1350 level controller to provide on/off level control and alarm functions in steam boilers, tanks or other vessels.

The four tip probe is particularly suitable where 3-lamp 'electric gauge glass' alarm/level indicators are fitted. The probe body is earthed through its screwed connection and the boiler or tank normally forms the earth return path. The probe may also be used in concrete or plastic tanks by using one of the tips as an earth return, or by providing a separate earth rod or plate. The LP11-4 probe has four detachable level sensing tips which are cut to length on installation to give the required switching levels. Note: Tips are ordered separately. When a tip is immersed in conductive liquid it completes an electrical circuit to earth. When the level drops below the tip, the resistance to earth becomes high, indicating to the controller that the tip is out of the liquid.

Caution:

The probe is not suitable for outside installation without additional environmental protection.

Available tip lengths mm (inches)

Tips are 1000 mm (39.4") long. Two sets of tips may be connected for a maximum probe length of 2095 mm (82.5")

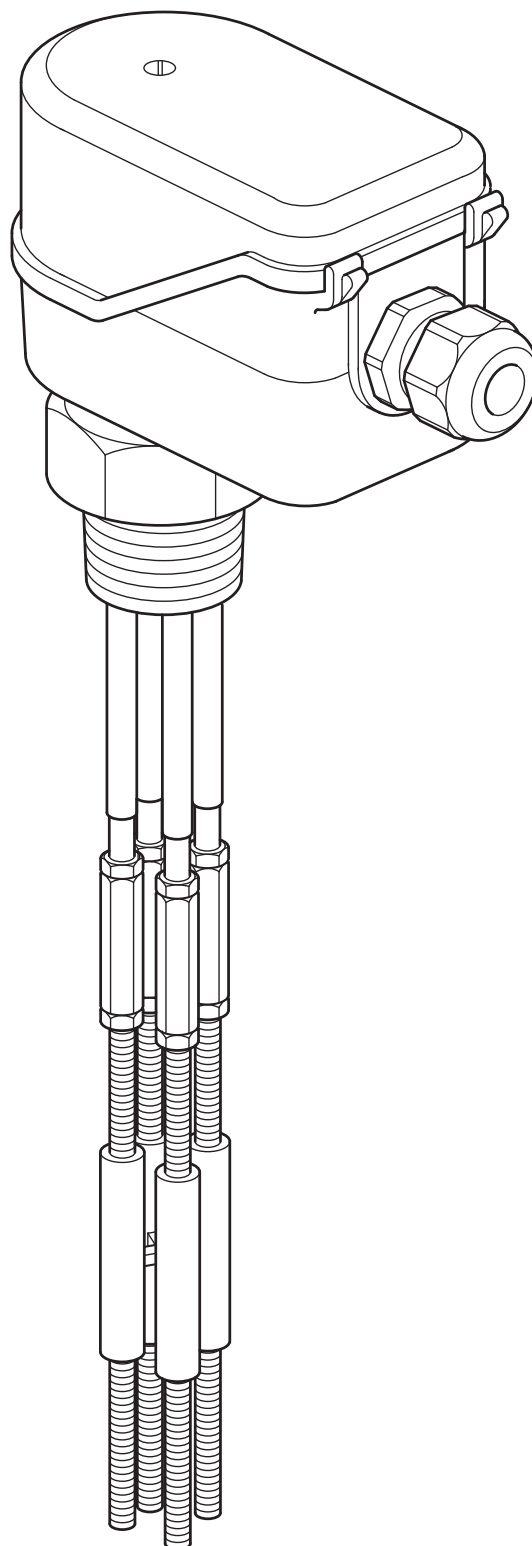
Pressure/temperature limits

Nominal pressure rating	PN40		
Maximum pressure	Standard	32 bar g	(464 psi g)
	UL certified	30 bar g	(435 psi g)
Maximum temperature	Standard	239 °C	(462 °F)
	UL certified	235 °C	(455 °F)
Ambient temperature	Maximum	70 °C	(158 °F)
	Minimum	-20 °C	(-4 °F)

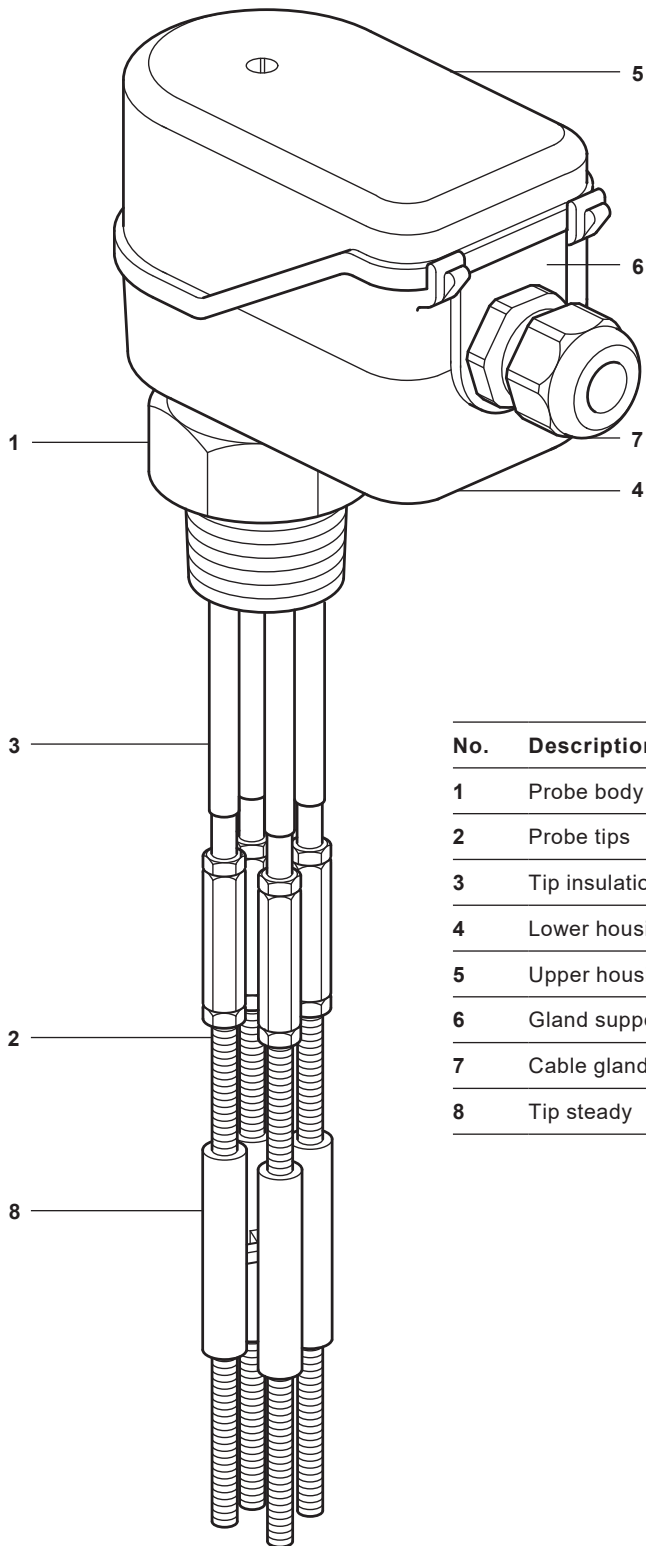
Technical data

Maximum cable length (probe to controller)	See controller IMI	
Maximum sensing depth	2 095 mm	(82.5")
Minimum sensing depth	75 mm	(3")
Degree of protection	IP54	

Minimum conductivity (when used with an LCS1350 level controller)
0.5 µS/cm @ 25 °C (77 °F).



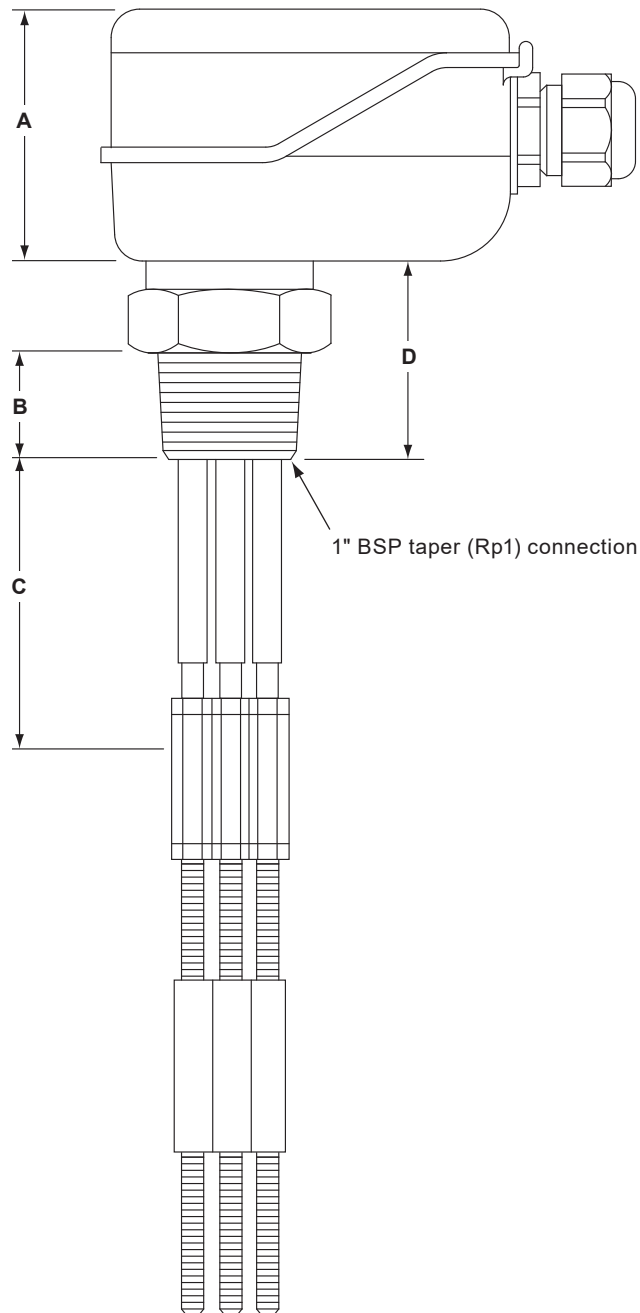
Materials



No.	Description	Material
1	Probe body	Austenitic stainless steel BS EN 10088-3 (1.4306)
2	Probe tips	Austenitic stainless steel Type 316/316L
3	Tip insulation sleeving	PFA (Per Fluor Alkoxy)
4	Lower housing	PPS (Polyphenylene sulphide)
5	Upper housing	PPS (Polyphenylene sulphide)
6	Gland support pad	Thermoplastic elastomer
7	Cable gland	PA (Polyamide)
8	Tip steady	PEEK (Polyaryletherketone) Grade 450G

Dimensions/weight (approximate) in mm (in) and kg (lb)

A	B	C	D	Weight
60 (2.4)	25 (1.0)	75 (3.0)	50 (2.0)	1.15 (2.5)



Available spares

LP11-4 connector set (electrical)	Comprising: 6 flat crimp connectors and 2 ring crimps.
LP11-4 tip mounting kit	Comprising: 1 set of 4 tip connectors, 8 lock-nuts and 2 tip supports.

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 unit for full details.

Warning: This product contains materials including plastics which can give off toxic fumes if exposed to excessive heat.

Installation note:

The LP11-4 is designed for installation in a BSP Rp1 (1" BSP tapered) threaded flange or cover.

Note: Always specify these thread for new installations.

A minimum 80 mm (3") nominal bore protection tube is recommended if installing the probe in a boiler, or in a tank which is subject to very turbulent conditions.

Additional environmental protection is needed for installation outdoors.

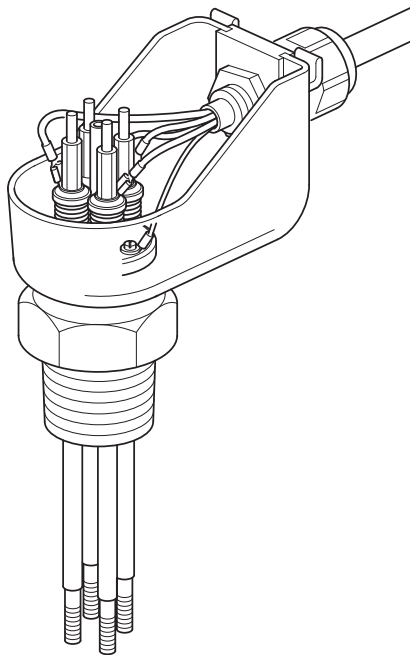
Wiring note:

Wiring is straightforward on the LP11-4, as crimp connectors are used. Extra connectors are available as a spares kit. Terminal posts are colour coded for easy identification.

The wiring loom may be disconnected and removed without disturbing the cable gland by lifting the gland carrier out of the lower housing.

Maintenance note:

No special maintenance is required, though boiler water level controls do require periodic testing and inspection which is described in separate literature.



How to specify

Conductivity probe with austenitic stainless steel body and probe tips, PFA tip insulation, suitable for steam boiler operation up to 32 bar g @ 239 °C.

How to order

Example: 1 off Spirax Sarco LP11-4 probe (BSP) with 1000 mm tip assembly.