



TI-P402-138
 AB Issue 2

PA420 Pre-amplifier

Description

The PA420 pre-amplifier, used with a Spirax Sarco capacitance probe, is a loop powered two wire 4-20 mA level transmitter. It amplifies the capacitance measured and converts it to a 4-20 mA output proportional to the liquid level. It is compatible with all Spirax Sarco current input controllers/transmitters.

The pre-amplifier consists of a tubular austenitic stainless steel body which screws onto the top of the probe, and has a Type A EN 175301-803 (DIN 43650) / ISO 4400 connector with Pg 11 cable gland.

The PA420 has two buttons and a dual coloured light (red and green) for use during commissioning.

Principal features:

- Compact, rigidly mounted.
- Can be removed/replaced without disturbing the probe.
- No maintenance needed.
- Suitable for all probe lengths (370 - 1500 mm).

Approvals:

- TÜV, VdTÜV-Merkblatt, Wasserstand 100 - 2010.
- Electromagnetic Compatibility Directive 2004/08/EG.

Caution:

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

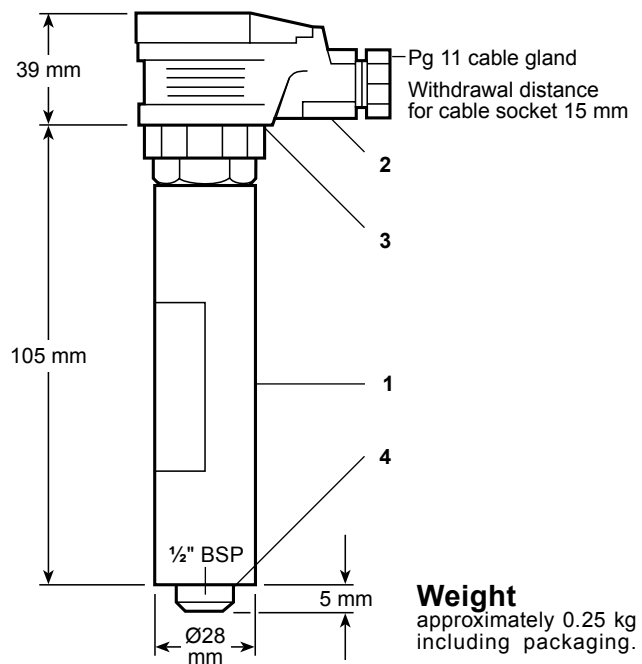
Limiting conditions

Ambient temperature range	0 - 70°C
Pollution degree	3
Water conductivity	5 µS/cm or 5 ppm
Maximum cable length	100 m (screened)

Technical data

Voltage drop (across the device)	9 - 26.4 Vdc
Loop current	4 - 20 mA
Maximum load	500 Ω
Linearity	2% FSD
Isolation	100 Vdc (capacitive)

Dimensions (approximate) in mm



Weight
 approximately 0.25 kg
 including packaging.

Materials

No	Part	Material
1	Body	Austenitic stainless steel 300 series
2	Cable connector	Polyamide (Glass filled)
3	Connector gasket	Silicone rubber
4	'O' ring	Nitrile rubber

Safety information, installation and maintenance

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

Installation note:

The PA420 is screwed into the top of the capacitance probe and hand tightened. An 'O' ring is supplied to provide a seal. An 'O' ring is also supplied with the probe. Use only one 'O' ring.
Caution: Do not install the probe outdoors without additional weather protection.

Maintenance note:

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

Spare parts

There are no available spare parts for this unit.

How to specify

Pre-amplifiers shall be Spirax Sarco type PA420 for use with Spirax Sarco capacitance probes. Pre-amplifiers shall have austenitic stainless steel bodies and a screwed connection, with a DIN 43650 connector and Pg 11 cable gland.

How to order

Example: 1 off Spirax Sarco PA420 pre-amplifier.