

S3™

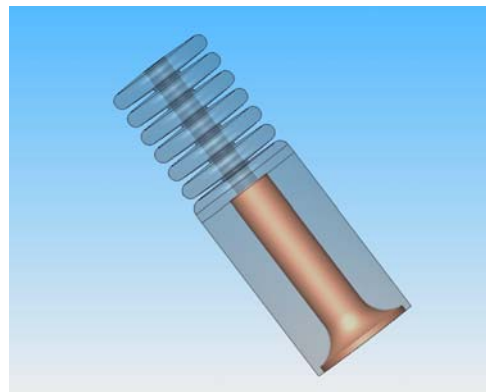
SolaStat™ Sensor Mounting System



The solution for mounting sensors on Hot Water Cylinders

Features.

- **Quick and Straightforward Sensor Installation.**
- **Universal fit for a wide range of insulation thicknesses.**
- **Improved reliability of sensor installation.**
- **High sensor accuracy vs water temperature (0.5°C).**
- **Available Pre-wired with SolaStat™ controllers.**
- **No need for fitted pockets on hot water tanks.**
- **Installer can choose best position for sensor.**



Introduction.

The S3™ system uses a carefully designed heat transferring copper foot surrounded by an insulating cover. The cover together with attachable split rings also acts as a low tension spring, holding the sensor foot against the inner wall, self adjusting for expansion and contraction. An outer flange attaches to the cladding to secure the assembly and provide a surface for the spring to act against.

SolaStat's™ patent pending design¹⁾ allows for a rapid, reliable and accurate sensor installation onto a hot water cylinder in a straight forward manner.

Senztek NZ Ltd has experience in designing and manufacturing SolaStat™ Solar Hot Water Controllers to Industrial Electronic Standards for over 15 years. This has earned SolaStat™ a reputation for Quality, Accuracy, Efficiency and Reliability. To complement their range of Solar Hot Water Controllers, SolaStat™ now offer an improved solution to mounting our sensors on hot water tanks (and other insulation clad surfaces).

¹⁾ Patent app no:181331NZ R/MCG

Ordering Information.

S3-16C-PV-2

6mm SolaStat™ Sensor Mount c/w 18mm cover and copper foot installed on a 2m PVC sensor.

S3-16C - ☐ - ☐
ST SL

6mm SolaStat™ Sensor Mount c/w 18mm cover and copper foot installed on a specified length PVC sensor.

S3 - Sensor			
ST	Sensor Type	SL	Sensor Length
PV	PVC	2	2m
TF	TEFLON	10	10m
		20	20m

Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant the long term reliability of the instrument.

S3™ Installation Instructions.

Warning: The S3™ should only be used on tanks that are made out of an electrochemical compatible metal to copper on the galvanic table. E.g. the S3™ can be used on tanks made out of stainless steel as it is close to copper on the galvanic table. However the S3™ must not be used on tanks made of aluminium as this will cause corrosion on the tank.

Note. There are an exceedingly wide range of insulation thicknesses on hot water cylinders. The minimum recommend wall thickness for the standard S3™ is 40mm. This should only be the case on very old hot water cylinders. To install on a tank with insulation thinner than this a special order needs to be made or some other adaptation.

Installation instructions.

1. Locate the best sensor position on the tank.
See installation guide of controller to assess this.¹⁾
2. Drill a 18mm hole through the outer cladding being careful not to puncture the inner tank wall.²⁾
3. Remove the insulation material within that hole.
4. Ensure that no residual insulation material remains in front of the exposed inner tank wall (this is critical to the success of the installation).



5. Place the sensor assembly in the hole. Add spacers until a millimetre or so of the last ring is protruding beyond the outer cladding. Spacers can be added by gently opening the split in the ring and pushing them over the sensor cable.

6. Remove assembly and apply a liberal amount of heat transfer compound to the exposed copper foot of the S3™ assembly.



7. Re-insert the sensor assembly.
8. Fix in place by securing the flange to the outer cladding with the 4 screws provided.

Notes:

- ¹⁾ Typical heights might be the (upper) 'tank' sensor at 1/3 to 1/2 way from the top, 'inlet' sensor 1/4 way up from the bottom or just below the booster element.
- ²⁾ Drilling into the outer cladding may void manufacturers warrantee.

S3™ Specifications.

Dimensions.

Outer Diameter of cover:	18mm
Length of cover:	40mm (25mm as a special order)
Width of spacer:	5mm

Flange dimensions.

Inner hole diameter:	6.5mm
Outer diameter:	45mm
Affixing holes diameter:	5mm (not hole size drilled for screws)

Foot construction:	Solid Copper (Cu)
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Insulation and ring material:	Red Silicone
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Flange material:	Acetyl
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Maximum Insulation Temperature:	250°C
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NOTES:

1. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application.
2. Technical data are subject to change without notification.
3. Each product is subject to the SolaStat™ Conditions of Sale or Distributor Agreement.

SolaStat™ Distributor.

