The Proper Installation & Maintenance of T-CL.

All power and signals must be de-energised before connecting any wiring.

MOUNTING.

(1) Mount in a clean environment.
(2) Do not subject to vibration.
(3) Avoid mounting near power control equipment.
(4) Mount the T-CL on a solid wall or panel, where air will flow freely around it.
(5) Always mount the T-CL so that the protective cap is either horizontal or sloping downwards. This helps prevent condensate build up in high humidity situations.
(6) Avoid mounting where the protective cap will get wet as this may cause false readings.
(7) Again ensure there is adequate air flow over the sensor.

WIRING.

(1) All cables should be good quality overall screened INSTRUMENTATION CABLE with the screen earthed at one end only.
(2) Signal cables should be laid a minimum distance of 300mm from any power cables.
(3) For the two, 2 wire current loops Austral Standard Cables B5002CS is recommended.
(4) It is recommended that you do not ground current loops and use power supplies with ungrounded outputs.
(5) Lightning arrestors should be used when there is a danger from this source.
(6) Cables are available ready made from your supplier. Standard cables are 1, 5 and 10 meter.
(7) To make your own cable you will need:
1 off JST connector shell 04R-JWPF-VSLE-S
2 off JST female pins SWPR-001T-P025
Screened 1 pair cable.
Crimp tool.

Positive wire to pin 2 of connector.
Negative wire to pin 1 of connector.

Pins 3 and 4 of connector are for a programming cable to set up the unit. End users should not have to change the setup or calibrate this sensor.

COMMISSIONING.

(1) Once all the above conditions have been carried out and the wiring checked apply power to the T-CL loop and allow five minutes for them to stabilize.
(2) To check Temperature accuracy use a calibration standard. One good way is to put both the T-CL and a reference probe into a thermos flask and allowing time for the temperature to stabilized. If there is a problem with the Temperature reading the unit will need to be return for recalibration.

MAINTENANCE.

(1) Hold the protective cap and check that the Temperature readings alter.
(2) Do it regularly - at least once every 6 months.
(3) Check cables entering the T-CL head.

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T-CL Temperature Transmitter

Features:

- ◊ **Single 4~20mA Outputs**
- ◊ **±0.2oC pre-calibrated thermistor sensor**
- ◊ **Very Compact Design**
- ◊ **High Accuracy**
- ◊ **Low Cost**
- ◊ **Easy to Install**
- ◊ **Reverse Polarity Protection**
- ◊ **Wide Power Supply Range**
- ◊ **IP67 weather proof.**

Description.

The T-CL is a complete temperature current loop sensing module, with one temperature (-30~70oC) loop powered 4~20mA output.

One version is available:

- Non Display (T-CL).

The unit comes completely encapsulated in a “Macromelt” molding to create a IP67 weather proof unit. The connector used is also rated to IP67.

Ordering Information.

T-CL	-30~70oC, Weather Proof Transmitter NO Display.

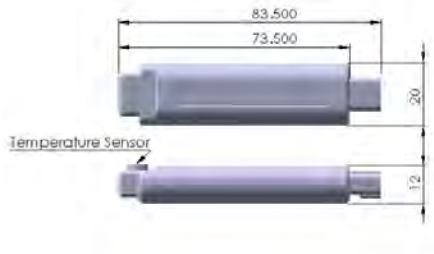
T-CL %RH Transmitter Specifications.

Accurate to	±0.3°C Typical.
- Output	-30~70°C for 4~20mA

T-CL Common Specifications.

Output.	2 wire 4~20mA (Loop Powered).
Power Supply.	9~33Vdc.
Supply Voltage Sensitivity.	<±0.01%/V FSO.
Maximum Output Current.	Limited to <32mA.
Max output Load Resistance.	800Ω @ 24Vdc. (50Ω/V Above 8Vdc).
Operating Temperature.	-30~70°C
Storage Temperature.	-30~85°C.
Operating Humidity.	100%RH.

Note. Good airflow and good air mixing must be maintained over the sensor to minimise local temperature fluctuations, and to ensure accurate measurements.



T-CL No Display

Product Liability.

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. Due to on going research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

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Temperature Sensor Operating Range.

The sensor used in this Transmitter is a Measurement Specialties 10K3A1B thermistor which is factory selected to be within ±0.2°C over the temperature range 0~70°C

Because the temperature sensor is within the filter and surrounded by the moulded case there is a time lag in the temperature readings.

Graph Of Maximum Load Versus Power Supply.