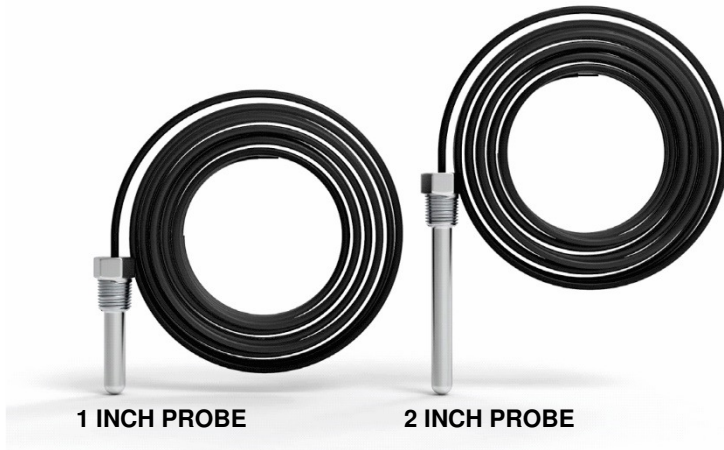




## Temperature Sensor Probes for use with QSI Electronics Kit



1 INCH PROBE

2 INCH PROBE

### SPECIFICATIONS

Housing:	316 Stainless Steel
Sensor:	RTD (Resistance Temperature Detector) R0C=100 OHMS, TCR=3850ppm/K
Operating Temperature:	-4°F (-20°C) to 221°F (105°C)
Leads:	3 Conductor (Red, White, Blue), #28 AWG, Tin Plated Copper, Stranded Ø.095 Black FEP Jacket

### KIT CONTENTS

- (2) Temperature sensor probes (1 in. or 2 in. sensor length, 120 in. [304.8cm] overall cable length).
- (2) Strain reliefs with O-rings, reduced fit (Ø0.08 - Ø0.20 cable ranges).
- (1) Instruction sheet.

## INSTALLATION

These instructions are for use when installing temperature sensor probes with QSI electronics version 1 or 2 (with BTU calculator). You will need the QSI wiring diagrams, the FLOMEC® App (for Android), and other QSI information that came with your product.

**NOTE:** *The meter should be installed in the system return line for accurate BTU calculations.*

**NOTE:** *If using with meters that do not have integrated temperature sensor ports, see typical probe installation illustrations at the end of these instructions.*

Typically, a temperature sensor probe is installed in the process piping initially near each end of the meter to calculate the differential temperature between the two probes (inlet vs outlet), if any.

The differential is captured and shown in the FLOMEC® App as “Temp 1” and “Temp 2” and is used in the BTU calculations to ensure an accurate calculation.

For clarity, one probe is considered PT100 #1 and is connected to the meter PC board in that location. It is shown as “Temp 1” in the FLOMEC App.

The other probe is then considered PT100 #2 and is connected to the meter PC board in that location. It is shown as “Temp 2” in the FLOMEC App.

To perform the differential check, the probe installed near the meter outlet end should be considered PT100 #1.

The probe installed near the meter inlet end should be considered PT100 #2.

After wiring the probes to the correct terminal of the PC board, perform the differential check.

After performing the differential check, remove the PT100 #2 probe near the inlet end of the meter and install the removed probe in the system supply line.

During normal system operation, probe PT100 #1 is installed near the meter outlet end and probe PT100 #2 is installed in the system supply line. Accurate system BTU usage is calculated between the (2) probes.

Typically, the probe cables are the same length. Excess cable from the PT100 #1 probe (near the meter outlet) to the cover plate may be coiled and secured using plastic quick ties.

## MAINTENANCE

Check cable-entry seals periodically. Tighten and/or apply sealant if needed. This is especially important in environments containing heavy concentrations of dust, oil mist, or other residue.

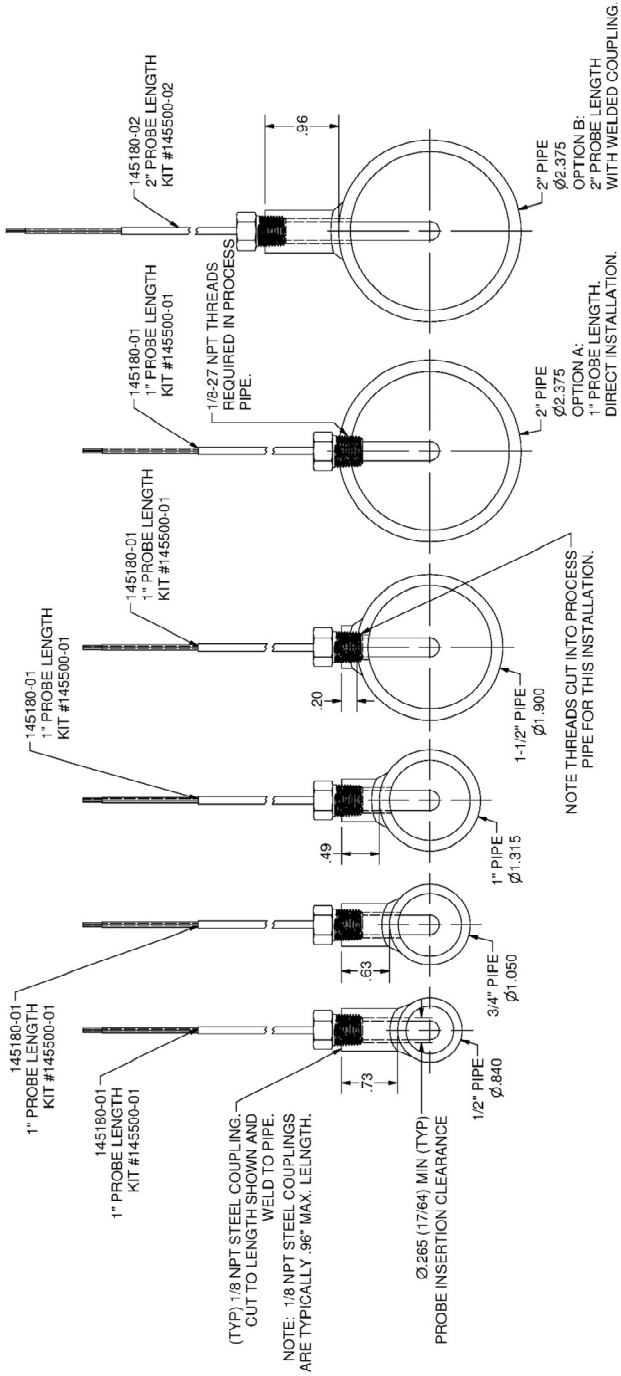
Check all wiring connections occasionally for oxidation or corrosion. Clean and re-seat if such conditions are noted.

If necessary, check and re-seat any connections that may have been subjected to strain (during rework or construction, for example).

## ILLUSTRATIONS

Typical installation and helpful information is shown on the next pages for meters that do not have integrated temperature sensor ports.

The most accurate method of using the temperature sensor probes is to ensure the probes are installed with the spherical probe end centered in the middle of the process pipe fluid flow (see Figures 1 & 2).



SCHEDULE 40 PROCESS PIPE SHOWN

Figure 1

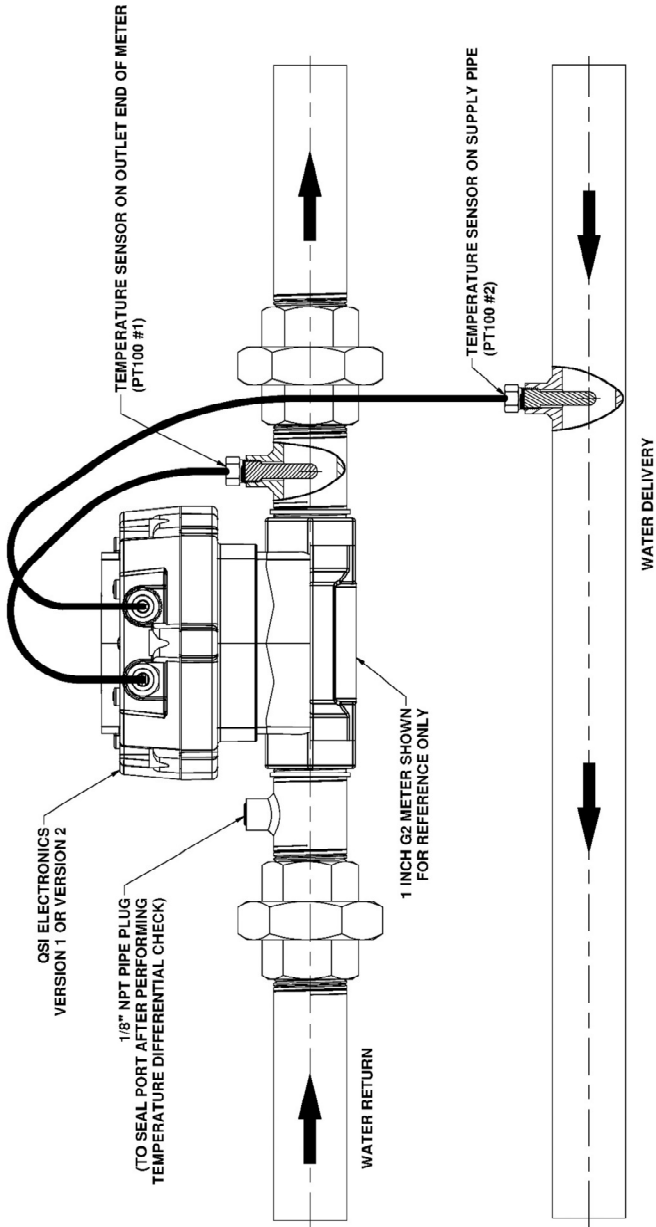


Figure 2

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