SPECIFICATION SHEET
REV. M

TF Industrial Thermal Flowswitch Part Number 7760175

Body Style: 3/4” NPT ABT body
Cable Length/Connector: 10’/3Meter, Carol 2464, AWG22, 3 conductor cable, no connector
Maximum distance: 150 Feet/50 Meter. Use AWG22 to lengthen
Type: Thermal sensor (proprietary)
Range: Flow 1GPM/4LPM minimum up to 100°F/38°C
Temperature Range: 32°F/0°C to 100°F/38°C
Pressure: Maximum 100psi/7bar
Requires insertion part # 7760445 (SM2T-SE) See page 2
Controller compatibility MicroFLEX, SlimFlex, ProMtrac, MultiFLEX, Aegis
To Order sensor kit 7760175 (See page 2 to order separate parts)
Supply voltage 15 – 24 VDC

NOTE: Never include low voltage sensors in conduit that contains AC voltages.

Sensor Maintenance: If deposits on the electrode withstand cleaning with a soft, moistened cloth, the following cleaning agents may be used:

General deposits: Non-abrasive household cleaner
Scale or metal hydroxides: Diluted hydrochloric acid, 0.1 to 0.3% for 3 to 5 minutes
Oil, grease: Alcohol
Bio-fouling: Mixture of diluted hydrochloric acid and pepsin for several hours

Probes must be rinsed thoroughly after having been cleaned.
**7760175 Complete Kit (Includes these 4 parts)**

- 7760491 Sensor only
- 7741484 ¾" SCH 80 PVC Tee (Not shown)
- 7760577 2-209 O-Ring
- 7760445 (SM2T-SE) Sleeve

**NOTE:** This sensor is compatible with the MultiFLEX, Aegis, Slim and Micro series controllers. It will not work on the Smart series controllers. The TF sensor has polarity protection while the TFF sensor does not.

**Cable:** 3 conductor AWG22 Stranded

- Red: 15VDC
- Green: Ground
- Black: Digital input: Aegis O-V, MultiFLEX O-Z, SlimFLEX, ProMtrac, MicroFLEX

**See wiring examples on page 4**
**7500804 Complete Metric TF Sensor Kit**

- **Sensor only**
  - **Body**: ABT
  - **Carbon electrodes (3)**
  - **Cord Grip**
  - **2-209 O-Ring**

- **7760577**
  - **Threads ¾” GHT**
  - **Epoxy fill**

- **7760491 Sensor only**

- **Cable**: 3 conductor AWG22 Stranded
  - Black Digital Output Signal
  - Red 15VDC
  - Green Ground

- **1036736 CTF/TF Adapter**
  - **Threads ¾” GHT**
  - **Sch80 PVC Body**
  - **DN 20 Socket**

- **Extra 4 Conductor cable**
  - **7746887**

Wiring examples on next page.
TF sensor termination examples

The TF flowswitch signal can be terminated on any digital input, O through Z on the Aegis and MultiFLEX controllers. Scroll through the menu to see if an input has been programmed and use that letter.

Aegis

Grounds and digital inputs

MultiFLEX

Grounds and digital inputs

SlimFLEX

MicroFLEX
Care & Cleaning of TF Sensor:

Cleaning:

Whitish or Brown Deposits (scale): Soak sensor tips in diluted (1% to 3%) hydrochloric acid for a few minutes (or until scale deposits dissolve).

Organic Fouling (bio-film or oil contamination): Clean sensor with alcohol, solvents or soap and water.

NOTE: Take care not to drop or bump sensor tips on hard surfaces. Cracked or broken graphite tips will require sensor replacement.

Testing the Thermal Flow Switch Function (sensor detects liquid movement across tips):

Test for Flow: Swirl sensor around in a cup of water. Flow should be detected within 30 seconds.

Test for No-Flow: Hold sensor still in a cup of water with no movement. Sensor should show no flow within 30 seconds.

Recommended Preventive Maintenance Replacement Schedule:

The sensor can provide many years of trouble free service. It is recommended the sensor be replaced every 2-3 years if required.

NOTE: Sensors in harsh environments or with debris in the sample stream may require more frequent replacements.

NOTE: Closing the inlet or outlet valve will settle a bouncing probe if air bubbles are present.

Older version (Showing O-Ring)

With union