SPECIFICATION SHEET

Date: 02/14/14
REV. M

CTF Industrial Conductivity/Temperature/Flowswitch
SENSOR PART NUMBER 7760246

Body Style:	3/4" NPT ABT body
Cable Length/Connector:	10'/3 Meter, Carol C4066A, AWG22, 6 conductor cable, no connector
Maximum distance:	150 Feet. Use AWG22 to lengthen
Type:	Conductance, Temperature -11mVK and Thermal sensor (proprietary)
Range:	Conductivity; 100 to 10,000uS, Temperature 32 - 100°F, 0 to 38°C Flow 1GPM minimum up to 100°F.
Temperature Range:	0 to 38°C (32 to 100°F)
Pressure:	Maximum 100psi
Requires insertion part #	7760445 (SM2T-SE)
Controller compatibility	MicroFLEX, SlimFlex, ProMtrac and Aegis

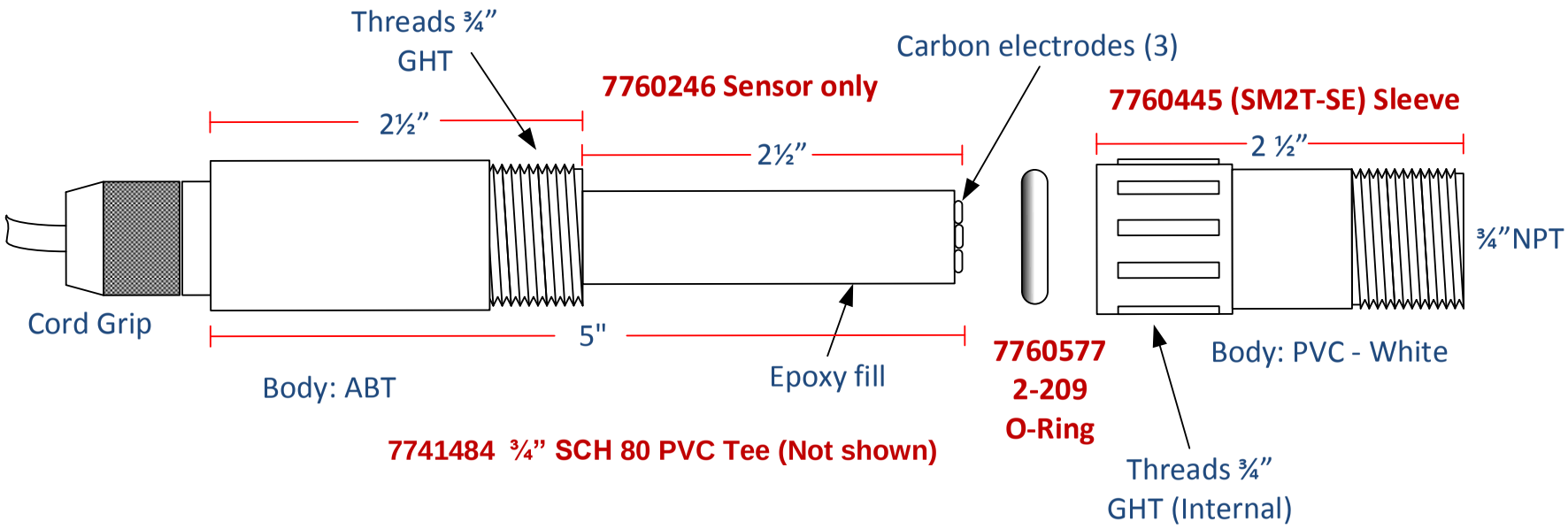
NOTE: Never include low voltage sensors in conduit that contains AC voltages.

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.

7760021 Complete Kit (Includes these 4 parts)

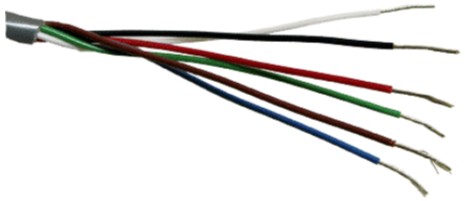


Cable: 6 conductor AWG22 Stranded

White T+
Black S+
Red S-
Brown Digital input (Aegis O -V)
Blue 15VDC
Green Ground

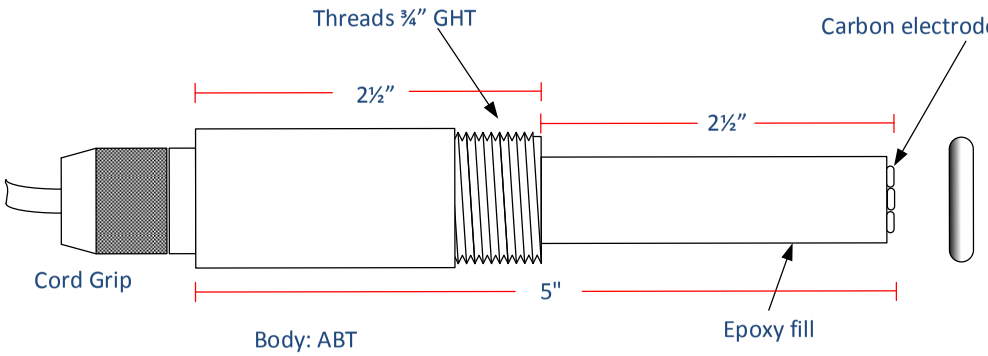
Wiring examples on next page

Extra 6 Conductor cable 3054355



	CTF Sensor specification	4/10	WPS	
Revision	Description	Date:	By	Appr:
All dimensions are in inches Unless specified otherwise		Drawn:	ProMinent®	
7760246 CTF Combination Conductivity/ Temperature/Thermal Flow Switch Sensor 7760445 Sensor Sleeve 7760577 O-Ring		Date: Appr: Date: Scale: NTS Mat's: Misc		

7500809 Complete Metric CTF Sensor Kit

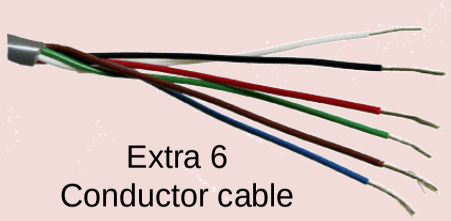


7760246 Sensor only

7760577
2-209
O-Ring

1036736 CTF/TF Adapter

Cable: 6 conductor AWG22 Stranded
White T+
Black S+
Red S-
Brown Digital input (Aegis O -V)
Blue 15VDC
Green Ground
Wiring examples on next page



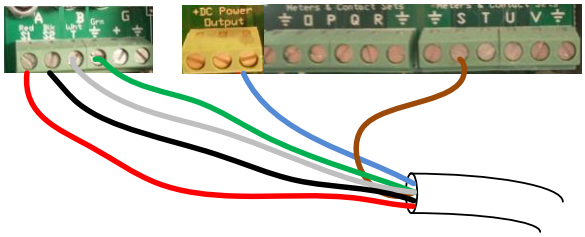
Extra 6
Conductor cable
3054355

CTF sensor termination examples

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

Aegis

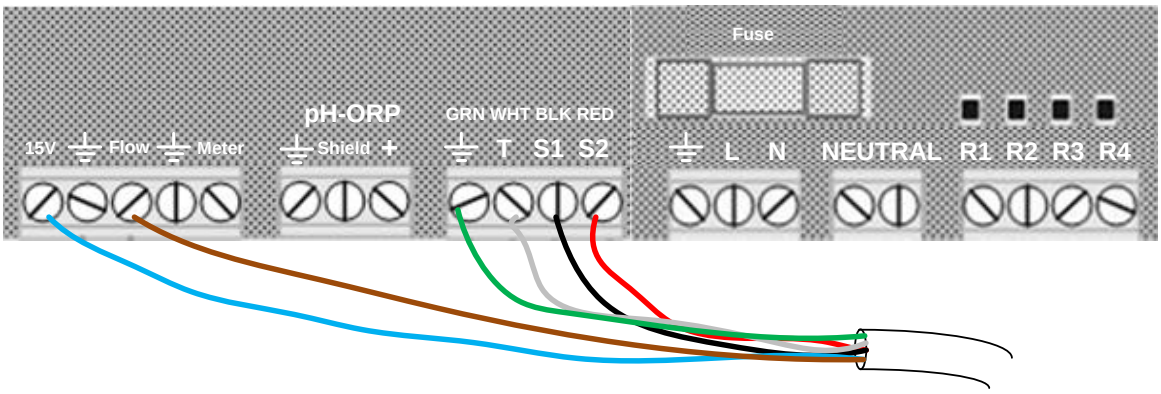
+15 Grounds and digital inputs



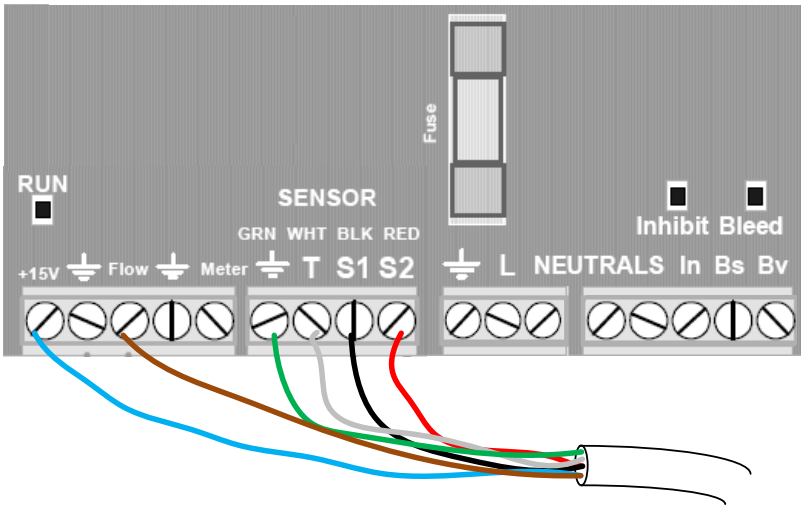
MultiFLEX

The MultiFLEX does not support the CTF sensor.

SlimFLEX



MicroFLEX



Overview

Explains how and when to provide periodic maintenance to the CTF sensor.

Gives a simple technique on how to test the thermal flow switch function.

Care & Cleaning of CTF Sensor:

Verification / Calibration:

Verify Monthly. Clean and calibrate if necessary. Failed calibration after cleaning may require sensor replacement.

NOTE: Calibrating more frequently than every 30 days indicates operating problems. Systems with effective water treatment will operate a year or more between calibrations.

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: The conductivity will measure a very low or zero value if not submersed in water. An erratic reading may be caused by entrained air in the water sample. Closing the inlet or outlet valve will settle a bouncing probe if air bubbles are present.