Chill-Out™ Combination Sensor

Bendable Aluminum

Ultra Flexible PVC Coated Steel Armor

Overview

- Two sensors in one easily installed package: a solid state low temperature cut-out ("Freeze Stat") and an averaging resistance temperature sensor.

- Digital alarm signal to RTU, PLC or an electronic control; 24VAC-powered.

- Solid state design and rugged ³⁄₈" diameter tubing eliminate concerns of gas leaks or kinking the capillary during installation.

- Mount in any direction — horizontal installation is not required.

- Easily formed aluminum or ultra flexible plenum-rated PVC coated galvanized steel armor sensor case.

- Relay and control circuitry self contained in rugged housing. Mounts on either side of enclosure with a locknut (included).

- Failure detection feature — relay changes state if power is lost

- 4 to 20 mA temperature loop output available with optional Temptran™ (ordered separately — see Section 4 for more information)

Specifications

Switching temperature: 38°F factory pre-set, user adjustable from 30°F to 44°F.

Accuracy: ±0.9°F (±0.5°C) typical.

Power requirement: 24V AC or DC.

Relay contact: User specified
Standard relay, SPDT (2" x 4" utility box)
    0.3 A at 125 VAC, Max. Voltage 125 VAC, or
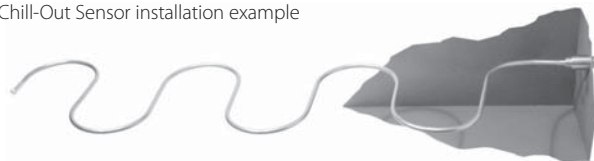   1A at 30 VDC, Max. Voltage 110 VDC

Optional power relay, DPST (4" x 4" utility box)
    25 A at 277 VAC
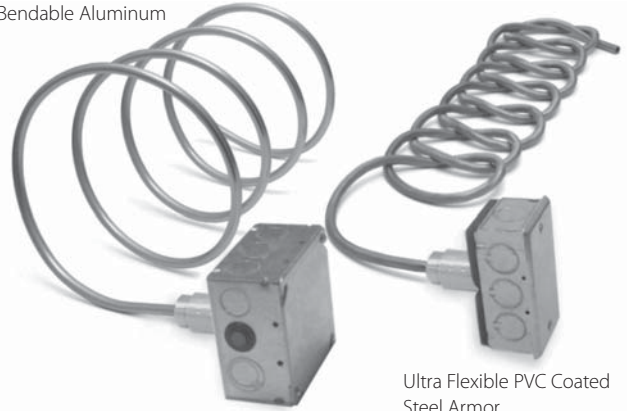   25 A at 120 VAC
    1 HP at 120 VAC
    2 HP at 277 VAC

Sensor case length: 10 feet standard, lengths up to 50 feet available by special order.

Connection: AWG 18 leadwires.

Chill-Out Sensor installation example
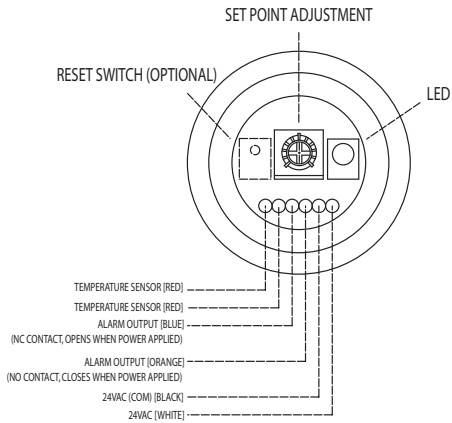

Specification and order options

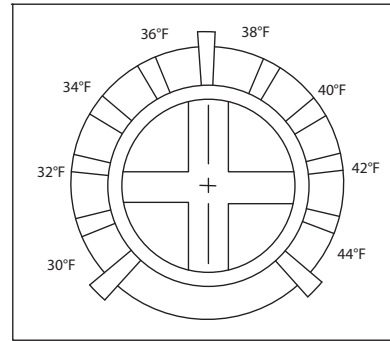| ▼AS103759	Model number
PF	Element Type: PF = 1000 Ω RTD (0.00385 Platinum)
38	Switching Temperature: ▼38°F Specify 30 to 44°F
E	Relay reset option: N = Non-latching (auto reset) ▼ L = Latching (manual reset) ▼E = Latching (panel mounted reset) Note: option 'E' requires enclosure 'L'
10	Case length: 10 feet ▼ : 10, 24, 50
A	Case type: ▼A = Aluminum ▼B = PVC
1	Relay Rating: ▼1 = 0.3A ▼2 = 25A, VAC powered controller/coil 3 = 25A, VDC powered controller/coil Note: option 2 or 3 requires enclosure 'L'

L	Enclosure:
	    N = No enclosure
	    S = Standard utility box (2" x 4")
	▼L = Large utility box (4" x 4")
	    W = Weatherproof utility box (2" x 4")

AS103759PF38E10A1L = Sample part number	

Order Replacement Relays

Model number	External Relay
AC103779	25A 24VAC Coil
AC103780	25A 24VDC Coil

▼= *STANDARD OPTIONS*
Specifications subject to change

Chill-Out Sensor Interface
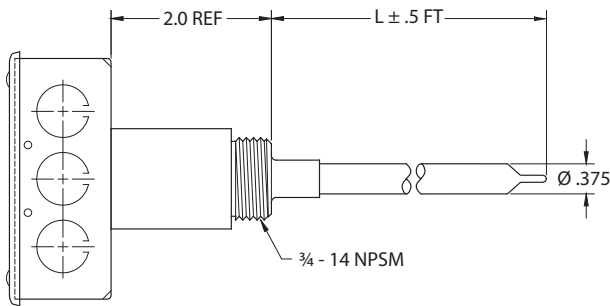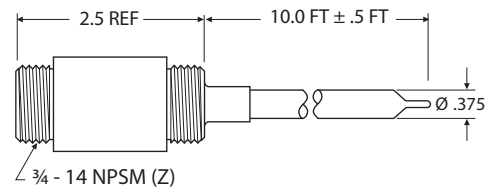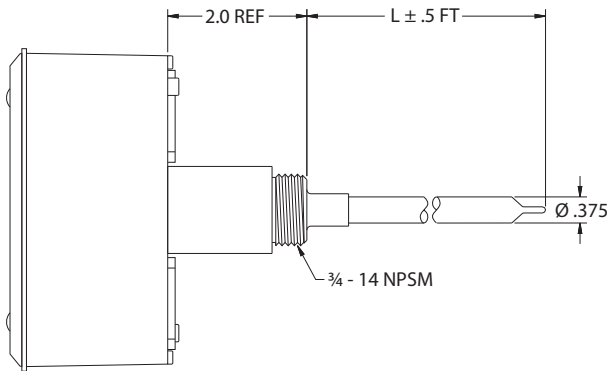

SET POINT ADJUSTMENT
RESET SWITCH (OPTIONAL)
LED

TEMPERATURE SENSOR [RED]
TEMPERATURE SENSOR [RED]
ALARM OUTPUT [BLUE]
(NC CONTACT, OPENS WHEN POWER APPLIED)
ALARM OUTPUT [ORANGE]
(NO CONTACT, CLOSES WHEN POWER APPLIED)
24VAC (COM) [BLACK]
24VAC [WHITE]

Setpoint Adjustment

36°F 38°F
34°F 40°F
32°F 42°F
30°F 44°F

Standard and Large Utility Boxes

2.0 REF   L ± .5 FT   Ø .375

¾ - 14 NPSM

No Enclosure

2.5 REF   10.0 FT ± .5 FT   Ø .375

¾ - 14 NPSM (Z)

Weatherproof Utility Box

2.0 REF   L ± .5 FT   Ø .375

¾ - 14 NPSM

Typical Installation with Relay

110 VAC OUTPUT (H)
HOT
110 VAC
HOT
8   6   4   2
NEUTRAL
0
110 VAC OUTPUT (N)
NEUTRAL
24 VAC or 24 VDC
HOT

SET POINT ADJUSTMENT
RESET SWITCH (OPTIONAL)
LED
TEMPERATURE SENSOR [RED]
TEMPERATURE SENSOR [RED]
ALARM OUTPUT, NC [BLUE]
ALARM OUTPUT, NO [ORANGE]
24VAC (N) [BLACK]
24VAC (H) [WHITE]

HVAC SENSORS