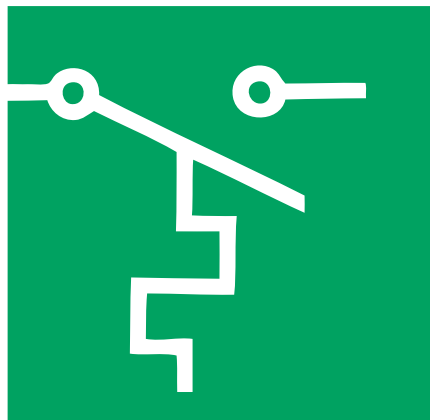


PNEUMATIC TEMPERATURE SWITCH [NON-ELECTRIC]



Description

The pneumatic temperature switch combines a temperature sensing element and a spool valve to produce a switching device with an adjustable setpoint. The assembly is non-electric, using only air or inert gas in the switch unit.

The assembly consists of two components, a switch unit and a transducer unit. The switch unit contains a mechanically actuated, five ported spool valve which provides the output signals. The transducer unit senses the temperature of a wide variety of liquids or gases and transmits a mechanical movement, at the preset temperature, to the switch unit.

Features

- Non-electric operation.
- Adjustable switch point.
- Excellent repeatability.
- Scale for reading switch point setting.
- Compact size.
- Open or enclosed (raintight) assemblies.
- Copper or stainless steel sensing element.
- Temperature setpoint from -60°F to +510°F.
- Direct mount (local) or capillary and bulb (remote) construction.
- Withstands high overrange temperatures.

Specifications

SWITCHING VALVE

- 5 ported, 4 way**
- 10-32 threaded female connections**
- Operating pressure** of 5 working ports vacuum to 100 psig.
- Working Fluid**-Clean Dry Air or Inert Gas.
- Air Usage**-Leakage to atmosphere approximately .002 SCFM at 100 psig.

Cv-.12

Flow Capacity-6.5 SCFM at 100 psig.

Ambient Temperature-minus 4°F to plus 122°F

TEMPERATURE TRANSDUCER

Sensor Materials-Sensing bulb available in copper or 316 SS.

Direct Mount Connection-1/2" NPT

Capillary and Bulb Connection-Fits into thermal well or union connector. Bulb is 3/8" diameter (details on reverse side)

Setpoint Range-minus 60°F to plus 510°F

Deadband-8°F or less

Ordering Information

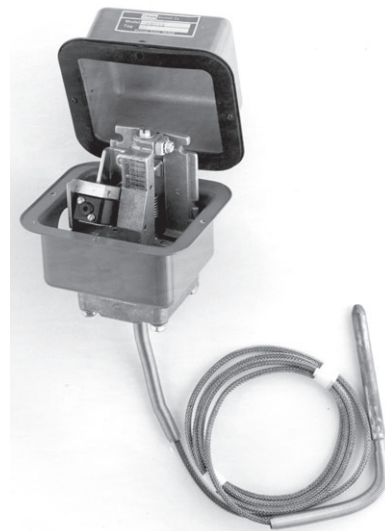
A temperature switch assembly consists of a switch unit and a temperature transducer unit.

For Example:

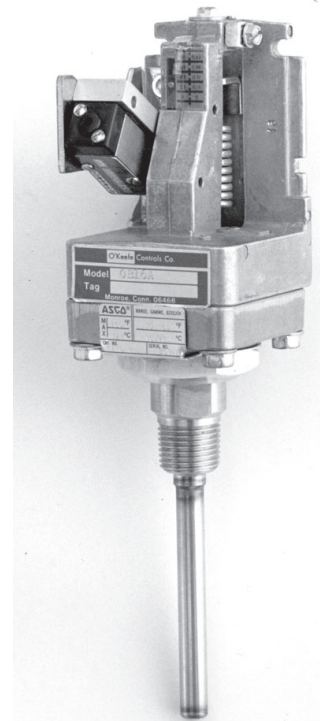
OB16A / OKF11A1
Open Frame 6' Capillary (Cu)
Switch Unit Transducer Unit
Range 50-160°F

To select an assembly refer to specifications chart on reverse side.

1. Determine the adjustable temperature range required (left column).
2. Check that rated overrange temperature is sufficient for the application.
3. Read across and select either an open frame or enclosed switch unit (OB16A or OB11A).
4. Continue across the same line and select the required direct mount or capillary and bulb transducer unit.



Pneumatic temperature switch with capillary and bulb transducer unit. Enclosed switch unit shown.



Pneumatic temperature switch with direct mount transducer unit. Open switch unit shown.

Phone 800-533-3285

Location

4 Maple Drive
Monroe, CT 06468

O'Keefe Controls Co.

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Fax 203-261-8331

Mailing Address

P.O. Box Q
Trumbull, CT 06611

Pneumatic Temperature Switches - Catalog Numbers

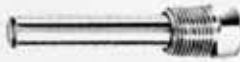
TEMPERATURE SPECIFICATIONS		SWITCH UNIT		TEMPERATURE TRANSDUCER UNIT					
Adjustable Operating Range °F*	Rated** Overrange Temperature °F*	Open Switch	Enclosed Switch	Direct Mount		6' Capillary And Bulb		12' Capillary And Bulb	
				Copper	316 SS	Copper	316 SS	Copper	316 SS
50 - 160	350	OB16A	OB11B	OKF10A1	OKF10A4	OKF11A1	OKF11A4	OKF11A1D	OKF11A4D
100 - 220	400	OB16A	OB11B	OKJ10A1	OKJ10A4	OKJ11A1	OKJ11A4	OKJ11A1D	OKJ11A4D
160 - 260	500	OB16A	OB11B	OKL10A1	OKL10A4	OKL11A1	OKL11A4	OKL11A1D	OKL11A4D
225 - 340	600	OB16A	OB11B	—	—	OKN11A1	OKN11A4	OKN11A1D	OKN11A4D
300 - 450	700	OB16A	OB11B	—	—	OKT11A1	OKT11A4	OKT11A1D	OKT11A4D
350 - 510	800	OB16A	OB11B	—	—	OKU11A1	OKU11A4	OKU11A1D	OKU11A4D

*°C = (°F - 32) x 5/9

**Rated overrange temperatures are limited as follows: For copper capillary units - 550°F. For direct mount units - 260°F.

Temperature Transducer Installation

Thermal Well



For use with direct or remote sensors — for protection of sensing bulb — allows removal of bulb while maintaining pressure-tight vessel. Available in 1/2" N.P.T. or 3/4" N.P.T. process connection in brass or 316 stainless steel. Dimensions are in accordance with SAMA Std. RC17-9. Standard "U" dimension (insertion length) is 2 1/2" for direct mount and 6' capillary units and is 4 1/2" for 12' capillary units.

Material	Pressure Rating (P.S.I.G.)	"U" Dimensions (Inches)	Process Connection	
			1/2" N.P.T. Catalog No.	3/4" N.P.T. Catalog No.
Brass	1000	2 1/2	KQP03	KQP04
		4 1/2	KQP13	KQP14
316 Stainless Steel	6000	2 1/2	KQP07	KQP08
		4 1/2	KQP17	KQP18

Capillary Dimensions

Capillary Length (Feet)	Bulb Diameter (Inches)	Bulb Length (Inches)	"U" Dimension Required (Inches)
6	3/8	3 1/2	2 1/2
12	3/8	5 1/2	4 1/2

Union Connector

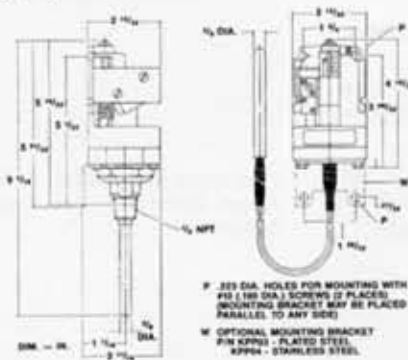


For use with remote units — for mounting of sensing bulb in fluid being controlled. Available in 1/2" N.P.T. or 3/4" N.P.T. process connections in brass or 316 stainless steel.

Material	Pressure Rating (P.S.I.G.)	Process Connection	
		1/2" N.P.T. Catalog No.	3/4" N.P.T. Catalog No.
Brass	500	KQP01	KQP02
316 Stainless Steel	1500	KQP05	—

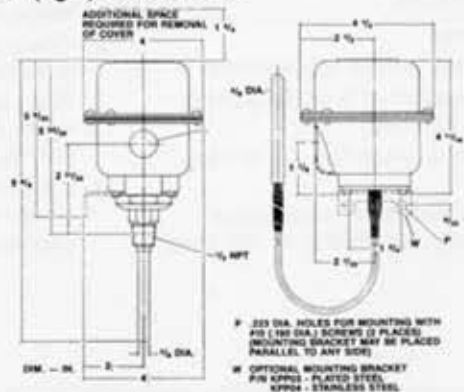
Open Switch Assembly

Shown with direct mount (left) and capillary and bulb (right) transducers.



Enclosed Switch Assembly

Shown with direct mount (left) and capillary and bulb (right) transducers.



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