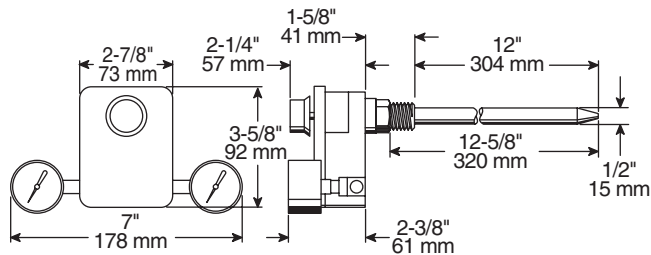


## Pneumatic Temperature Pilot

A compact pneumatic temperature pilot with broad temperature ranges, the OBK-2000 can be remotely located away from the regulator valve, an advantage not available with a conventional capillary system.

Typical applications include instantaneous or storage tank water heaters, air make-up units and manufacturing process operations such as parts washing, die casting and plastic molding.

Capable of reverse-acting (heating) or direct-acting (cooling) operation, the OBK-2000 features a simple design with fewer moving parts for trouble-free operation. Other features include supply and control pressure gauges, a rugged cast brass housing, and precise and rapid response to temperature changes. Brass and stainless steel wells are available.



OBK-2000

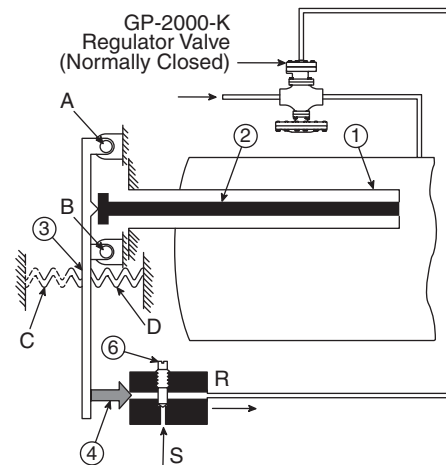
OBK-2000 Materials	
Name of Part	Material
Body	Brass
O-rings	Silicone Rubber/Buna "N"
Valve	Phos. Bronze
Valve Seat	Phos. Bronze

NOTE: Thermal wells available. 304 stainless steel or brass are standard materials. Other materials available upon request.

## Reverse-Acting Operation—For Heating

During operation, a temperature change in the medium being controlled creates a change in the length of the sensitivity tube. An increase in temperature lengthens the sensitivity tube (1) and moves the invar rod (2) from the lever (3). The lever pivots at point B and is moved so the exhaust valve (4) is opened by the spring at (D). This lever action decreases the supply air at point (S) in the control line at point (R) and closes the regulator valve. A decrease in temperature shortens the sensitivity tube at point (1) and moves the invar rod against the lever point (3). The lever at this point moves against the spring at point (D) to close the exhaust valve at point (4). This lever action increases the pressure in the control line at point (R) and opens the valve.

The sensitivity adjustment screw at point (6) regulates the rate of flow of the supply air to the controller to a change in temperature. Turning the screw clockwise increases the sensitivity by reducing the flow and increasing the response time. Turning the screw counterclockwise decreases the sensitivity by increasing flow and reducing the response time. Valve closes on air failure, making it fail-safe.



Positions A and C show pivot point A and spring C when controller is direct acting.

OBK-2000 Specifications	
Dial adjustment range—°F (°C)	Standard—50 to 350 (10 to 177)
Maximum supply pressure (air) @ room temperature—psi (bar)	25 (2)
Air consumption (maximum)—SCIM (cm/s)	800 (218 - 3)
Maximum operating pressure—psi (bar)	250 (17)
Maximum operating temperature—°F (°C)	400 (204)
Temperature response—°F (°C)	0.5 (0.3)
Mounting—in (mm)	1/2 (15)
Air connections—in (mm)	1/8 (3)
Shipping weight—lb (kg)	4 (1.8)
Sensitivity (adjustable)—psi (bar)	1/4 to 2-1/4 (0.02 to 0.16)
Maximum pressure on wells	
Stainless steel—psi (bar)	1,125 (79)
Brass—psi (bar)	525 (36)

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit [armstronginternational.com](http://armstronginternational.com) for up-to-date information.