

For Steam

Armstrong's OB-2000 is a high performance externally piloted temperature regulator for large capacity applications such as heat exchangers, steam coils, steam dryers, plating tanks and parts washers. Self-actuated and requiring no external energy source, the OB-2000 comes with pilot valve and tubing pre-

assembled. Capillary units mount in any position and can be easily disconnected and interchanged, offering easy installation and maximum application flexibility. Available in sizes 1/2" through 4" with six temperature ranges and three capillary lengths.

Table PTC-278-1. OB-2000 Specifications

Application	Inlet Pressure (barg)	Minimum Differential Pressure (barg)	Temperature Ranges (°C)	Temperature Accuracy (°C)	Capillary Length (m)
Steam	0,5 - 20	0,5	-8 - 15	± 1 °C From Set Point	2 3 5*
			10 - 36		
			30 - 62		
			55 - 94		
			80 - 127		
			115 - 183		

* Standard length.

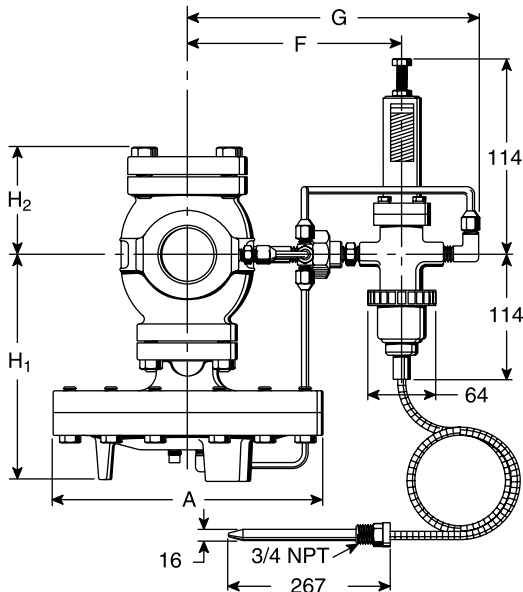
Note: If desired set temperature is in temperature range overlap, select lower range.

Table PTC-278-2. OB-2000 Dimensions and Weights

Size	Face-to-Face		H ₁	H ₂	A	F	G	Weight		Cv
	BSPT	PN 25/40						kg	kg	
	mm	mm								
15 - 1/2"	150	150	170	74	200	169	222	14	15,4	5,0
20 - 3/4"	150	150	170	74	200	169	222	14	16,1	7,2
25 - 1"	160	160	175	76	226	174	227	18	20,6	10,9
32 - 1 1/4"	180	180	192	90	226	182	235	22	24,4	14,3
40 - 1 1/2"	180	200	192	90	226	182	235	22	25,3	18,8
50 - 2"	230	230	216	103	276	189	242	33	37,0	32,0
65 - 2 1/2"	-	290	251	122	352	206	259	-	66,5	60,0
80 - 3"	-	310	264	135	352	217	270	-	71,8	78,0
100 - 4"	-	350	321	167	401	234	287	-	113,3	120,0

Shade indicates products that are CE Marked according to the PED (97/23/EC). All the other sizes comply with the Article 3.3 of the same directive.

Note: DN150 valve is available on request, but is not CE Marked.



All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

Table PTC-279-1. Sensor and Accessory Specifications					
CAPILLARY		BULB		THERMAL WELL	
Material	Temperature Range (°C)	Material	Connection	Material	Connection
Copper Capillary Tube with 304 Stainless Steel Armor Shield	-8 - 15	Nickel Plated Copper	3/4" NPT	Brass or 304 Stainless Steel*	1" BSPT
	10 - 36				
	30 - 62				
	55 - 94				
	80 - 127				
115 - 183					

* Standard. Other material available upon request. See page PTC-276 for dimensional information.
Note: Capillary can withstand a maximum of 20°C above rated range. If desired set temperature is in temperature range overlap, select lower range.

Table PTC-279-2. OB-2000 Materials					
OB-2000	Body	Seat	Valve	Connection	Maximum Temperature
Main Valve	Ductile Iron ASTM A536	Single Seat Stainless Steel AISI 420	Stainless Steel AISI 420	BSPT or Flanged PN 25/40	232°C
Temperature Pilot Valve	Bronze ASTM B584			1/4" NPT	

Valve Sizing

Proper valve selection requires the following information

- Steam capacity required for application
- Supply pressure of steam
- Allowable pressure drop across valve*

* Where it is not possible to calculate pressure drop, 35% - 40% of gauge supply pressure can be used as a reasonable approximation.
 For capacities see page PTC-281.

Parameters:

Fluid Steam
 Maximum inlet pressure 7 bar
 Outlet pressure 6 bar
 Maximum flow rate 678 kg/h
 Temperature required 82°C
 Distance from regulator to sensing point 1,5 m

To Locate Proper Model:

Enter inlet column at 7 bar
 Move to outlet pressure of 6 bar
 Locate capacity of 678 kg/h under 1"
 Find capillary temperature range 55 - 94°C
 Select capillary length 2 m or standard 5 m

Application Will Require:

**OB-2000, 1" with 55 - 94°C Temperature Range,
 Capillary Length 5 m**

Pressure and Temperature Controls

Temperature Regulator Selection Example

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