

Thermostatic Actuators OT1100, OT2100, OT5100



Description:

These 2-Way and 3-way control valves use the OT1100, OT2100, OT2115, OT5100 family of self acting thermostatic interchangeable actuators. They are designed for the control of hot and chilled water and low pressure steam.

The OMI100 manual adjuster is also available.

These compact self acting thermostatic actuators are liquid filled for fast reaction to temperature change at the sensing point. On a rise in temperature the liquid within the metallic bellows expands, opposing the action of the return spring within the valve body moving the valve stem. An insulated heat barrier prevents the heat from the valve stem effecting the operation. The entire actuator can be removed without tools for service or replacement with simple thumbnut mounting ring. Temperature adjustment stoppers inside the unit can be set to prevent set point tampering. A theft prevention cover (OMI200) is available to order and can be installed on all units. The complete range of thermostatic actuators can be installed on all Spartan Zone Valve bodies, two way models V160, V240, V241, V243, V245 and three way models V320, V325, V420.



All valve bodies have replaceable cartridges for ease of maintenance. Stem, packing, disc and spring are replaceable as a cartridge inline without removing the valve body. Choice of Cv's (Kv's) is available, see Valve Body Data Sheet.

Specification:

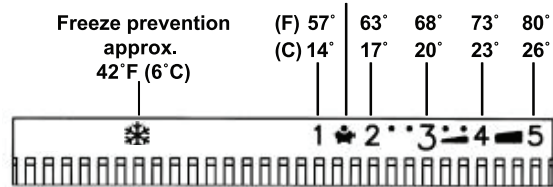
- Actuator types: OT1100 - Direct Coupled
 OT2100 – Remote Bulb with 6.5'(2m) capillary
 OT2115 – Remote Bulb with 16.5' (5m) capillary
 OT5100 – Wall Mount Sensor and Adjuster 6.5'(2m) capillary
 OMI100 – Manual hand adjuster
 OMI200 – Theft prevention cover

Force: 27lb (120Newton)

Temperature range: 40° to 85°F (5° to 30°C)

Temperature setting scale 1 to 5; 57°F(14°C), 63°F(17°C), 68°F(20°C), 73°F(23°C), 80°F(26°C)

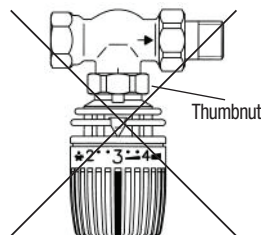
Economy position approx. 60°F (15°C)



- Set Point memory clip.
- Economy Energy saving setting
- * Freeze Protection Setting, 42°F (6°C)
- Maximum Temperature: 180°F (80°C)
- Stroke: 3.5 mm
- Set point limit stops
- Maintenance Free

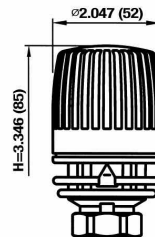
Installation Instructions:

The actuator can be installed vertically or horizontally; it cannot be installed upside down. The Actuator mounting thumbnut is to be tightened by hand only, using tools may result in over-tightening.

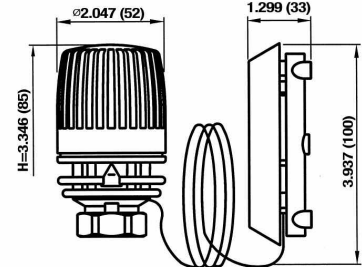


Dimensions - inches (mm)

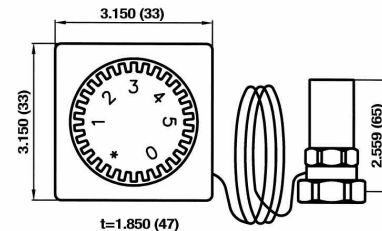
Thermostatic control head
OT1100 . with fixed sensor



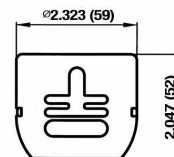
OT2100 . with remote sensor



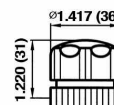
OT5100 . with remote dial and sensor



Theft protection
OM1200



Manual control knob
OM1100



For OM1200 Theft Proof Cover, use TORX-T10 tool.

Control Valve Assemblies with Self Acting Thermostatic Actuators

OT1100, OT2100, OT5100

Valve Body	Description	Size	*Cartridge CV/KV selection	Actuator OT1100	Actuator OT2100	Actuator OT5100	Max. Close-off PSI / Bar
V240 - 2 way valve body - union connection both ports							
V240-12		1/2"	BC-0.15,0.25	VT240-12-BCXX-1100	VT240-12-BCXX-2100	VT240-12-BCXX-5100	50 / 3.4
V240-12	Select solder or threaded unions**	1/2"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT240-12-EPXX-1100	VT240-12-EPXX-2100	VT240-12-EPXX-5100	30 / 2.0
V240-34		3/4"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT240-34-EPXX-1100	VT240-34-EPXX-2100	VT240-34-EPXX-5100	30 / 2.0
V241 - 2 way valve body - female port in, X union connection port out							
V241-12	Single union straight with female port in and	1/2"	BC-0.15,0.25	VT241-12-BCXX-1100	VT241-12-BCXX-2100	VT241-12-BCXX-5100	50 / 3.4
V241-12	male union out	1/2"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT241-12-EPXX-1100	VT241-12-EPXX-2100	VT241-12-EPXX-5100	30 / 2.0
V241-34		3/4"	EP-1.0,1.5,2.0,2.5,3.5,4.5	VT241-34-EPXX-1100	VT241-34-EPXX-2100	VT241-34-EPXX-5100	30 / 2.0
V243 - 2 way valve body - female port in, X female port out							
V243-12		1/2"	BC-0.15,0.25	VT243-12-BCXX-1100	VT243-12-BCXX-2100	VT243-12-BCXX-5100	50 / 3.4
V243-12	Female by female port,	1/2"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT243-12-EPXX-1100	VT243-12-EPXX-2100	VT243-12-EPXX-5100	30 / 2.0
V243-34	straight valve body	3/4"	EP-1.0,1.5,2.0,2.5,3.5,4.5	VT243-34-EPXX-1100	VT243-34-EPXX-2100	VT243-34-EPXX-5100	30 / 2.0
V243-10		1"	EB-6.0,6.4,8.0,9.0	VT243-10-EBXX-1100	VT243-10-EBXX-2100	VT243-10-EBXX-5100	40 / 2.7
V245 - 2 way valve body - female port in, X female port out							
V245-12		1/2"	BC-0.15,0.25	VT245-12-BCXX-1100	VT245-12-BCXX-2100	VT245-12-BCXX-5100	50 / 3.4
V245-12	Direct solder body	1/2"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT245-12-EPXX-1100	VT245-12-EPXX-2100	VT245-12-EPXX-5100	30 / 2.0
V245-34		3/4"	EP-0.50,1.0,1.5,2.0,2.5,3.5	VT245-34-EPXX-1100	VT245-34-EPXX-2100	VT245-34-EPXX-5100	30 / 2.0
V160 - 2 way valve body - angle union globe							
V160-12	Angle body with single union	1/2"	1.9	VT160-12-1.9-1100	VT160-12-1.9-2100	VT160-12-1.9-5100	30 / 2.0
V160-34		3/4"	3.0	VT160-34-3.0-1100	VT160-34-3.0-2100	VT160-34-3.0-5100	20 / 1.4
V320 - 3 way diverting valve body - unions on all three ports							
V320-12	Select solder or threaded unions**	1/2"	ED1.0,2.0,3.0,3.5	VT320-12-EDXX-1100	VT320-12-EDXX-2100	VT320-12-EDXX-5100	30 / 2.0
V320-34		3/4"	ED1.0,2.0,3.0,3.5	VT320-34-EDXX-1100	VT320-34-EDXX-2100	VT320-34-EDXX-5100	30 / 2.0
V345-34	Threaded unions only***	3/4"	CV5.5	VT345-34-5.5-1100	VT345-34-5.5-2100	VT345-34-5.5-5100	20 / 1.4
V345-10		1"	CV5.5	VE345-10-5.5-1100	VE345-10-5.5-2100	VE345-10-5.5-5100	45 / 3.0
V325 - 3 way diverting valve body - direct solder							
V325-12	3 way diverting direct solder	1/2"	ED1.0,2.0,3.0,3.5	VT325-12-EDXX-1100	VT325-12-EDXX-2100	VT325-12-EDXX-5100	30 / 2.0
V325-34		3/4"	ED1.0,2.0,3.0,3.5	VT325-34-EDXX-1100	VT325-34-EDXX-2100	VT325-34-EDXX-5100	30 / 2.0
V420 - 3 way diverting 4 port valve body with built-in tee - all 4 ports require 15mm compression fitting							
V420-12	3 way diverting	1/2"	ED1.0,2.0,3.0,3.5	VT420-12-EDXX-1100	VT420-12-EDXX-2100	VT420-12-EDXX-5100	30 / 2.0

*Select CV from available cartridges and replace XX with CV value in complete part number of the assembly. †Maximum differential pressure 50 Psi / 3.4 Bar to prevent water noise.
 ** Valve bodies V240 and V320 will accept 1/2" or 3/4" unions in either solder or threaded versions, or combinations of them. *** Valve body V345 will accept 3/4" or 1" threaded unions. See Valve Body data sheet.