



# SELF-ACTING UNBALANCED TEMPERATURE REGULATOR

## MODEL TC1

### Features

**Unbalanced self-acting single seat globe valve type temperature regulator. Suitable for steam heating of liquids, air and non-hazardous gases.**

1. Self-acting design simplifies installation by eliminating the need for power supply and instrument signal lines.
2. No external energy required, allowing for ease of installation in remote areas or potentially flammable atmospheres.
3. Robust design minimizes maintenance.
4. Reliable long-life spring mechanism protects the sensor from overheat damage.
5. Wide set point range and simple set point adjustment provide easy operation.



### Specifications

#### VALVE

Model	TC1					
Size (DN)	15	20	25	32	40	50
Kvs Value (DIN)	4	6.3	8	16	20	32
Cv Value (UK)	3.9	6.1	7.8	15.6	19	31
Cv Value (US)	4.7	7.4	9.4	19	23	37
Maximum Allowable Differential Pressure* (bar) $\Delta$ PMX	22	16	14	12	6	4
Leakage Rate	< 0.05% of Cv (Kvs) value					
Body Material	Cast Iron GG-25		Ductile Cast Iron GGG40.3		Cast Steel GS-C 25	
DIN Material Number (WN)	0.6025		0.7043		1.0619	
ASTM/AISI Equivalent	A126 Cl.B		A395		A216 Gr. WCB	
Connection	Flanged DIN 2501 PN 16**		Flanged DIN 2501 PN 25		Flanged DIN 2501 PN 40**	
Maximum Operating Pressure (barg) PMO	13		16***			
Maximum Operating Temperature (°C) TMO	200		220			

\* Subject to limitations of body pressure rating \*\* ANSI standards also available \*\*\* Higher pressures possible with optional isolation piece

1 bar = 0.1 MPa

#### THERMOSTAT

Model	TC-A
Suitable for Immersion in***	Liquids compatible with sensor material
Set Point Range***	20 °C to 120 °C
Maximum Temperature at Sensor	Set Point Value + 100 °C
Ambient Temperature Limits at Adjustment Head	- 40 °C to 80 °C
Capillary Tube Length*** (m)	3

\*\*\* Other options available, see overleaf for details

#### PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

Maximum Allowable Pressure (barg) PMA:

13 (Cast Iron), 16 (Ductile Cast Iron & Cast Steel)

Maximum Allowable Temperature (°C) TMA:

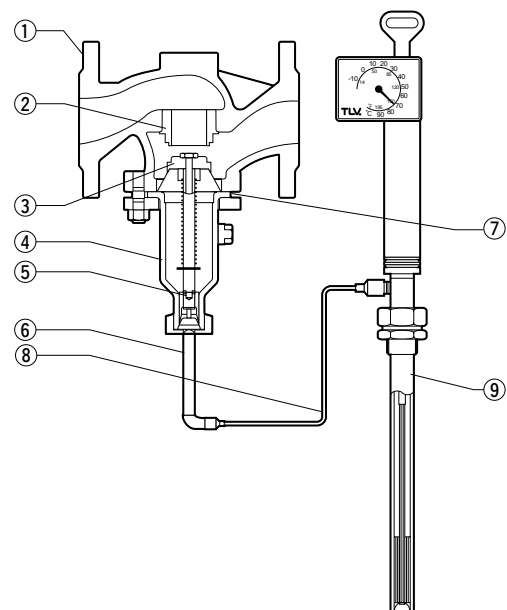
200 (Cast Iron), 220 (Ductile Cast Iron & Cast Steel)



To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	DIN	ASTM/AISI*
①	Body	As specified above		
②	Seat	Stainless Steel	1.4006	AISI 410
③	Plug	Stainless Steel	1.4006	AISI 410
④	Bellows Housing	Carbon Steel	1.0305	A106 Gr. A
⑤	Plug Stem	Stainless Steel	1.4301	AISI304
⑥	Operating Element	Nicke-plated Brass	-	-
⑦	Body Gasket	Graphite on Metal Core	-	-
⑧	Capillary Tube	Nickel-plated Copper	-	-
⑨	Temperature Sensor	Nickel-plated Bronze	-	-

\* Equivalent



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