

## THERMOSTATIC RADIATOR VALVES

### Introduction

The inta i-therm range of thermostatic radiator valves are designed to be fitted in any orientation and with water flowing in either direction. Inta recommends that good working practice dictates that an automatic by pass valve be fitted to central heating systems that incorporate thermostatic radiator valves to prevent the pump pumping against a closed head as the valves begin to shut as the system gets to temperature.

Inta i-therm thermostatic radiator valves are available in 8, 10 & 15mm variants making them suitable for a wide range of systems. With a choice of both white and chrome heads, the i-therm thermostatic radiator valves will be unobtrusive wherever they're specified. Clever product design means that the i-therm adjustable thermostatic head doesn't collect and retain dust and dirt ensuring that it will continue to operate efficiently, and consistently, for years to come.



- Class I efficient thermostatic radiator valve\*
- Keymark approved to BS EN 215\*
- Liquid filled sensor
- Control range 0 - 30°C
- Anti dirt trap minimalistic design
- Frost protection setting
- Anti chatter cartridge
- Fully bi-directional
- Available in white and chrome
- Maximum working pressure 10 Bar
- Maximum flow temperature 110°C

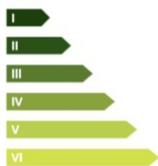
### Product Range

Code	Description
15TRVA	15mm angled thermostatic radiator valve
108TRVA	10/8mm angled thermostatic radiator valve
15TWINA.1	15mm angled thermostatic radiator valve with lockshield
108TWINA	10/8mm angled thermostatic radiator valve with lockshield
15TRVACP	15mm chrome angled thermostatic radiator valve
15TWINACP.1	15mm chrome angled thermostatic radiator valve with lockshield



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Energy



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A label of EUnited Valves  
European Valve Manufacturers Association



028

COMPANY IDENTITY NUMBER - 43

\*relates to white heads only

### THERMOSTATIC RADIATOR VALVES

#### ▀ Technical Specification - white TRV head

Thermostatic head and valve true to quality standard BS EN 215		 028
Minimum regulation calibration (anti-frost position)	$t_s$ min	7°C (*)
Maximum regulation calibration (position)	$t_s$ max	30°C (5)
Saving condition (position)		20°C (3)
Maximum exercise pressure	PN	1000 KPa
Maximum differential pressure (direction of delivery)	$\Delta P$	100 KPa
Maximum differential pressure (direction of return)	$\Delta P$	60 KPa
Minimum nominal flow rate "qm N" (DP=0.1 Bar) angle-straight DN15	$q_m N$	200-220 ltrs/h
Minimum nominal flow rate "qm N" (DP=0.1 Bar) angled DN10	$q_m N$	210 ltrs/h
Control accuracy according to BS EN 215 - for valves with brass cap unit	CA	0.6 K
Maximum exercise temperature		110°C
Product storage (in original packaging)		-25°C ÷ 50°C
Hysteresis	C	0.3 K
Authority	a	0.9
Feedback	Z	25 min
Differential pressure influence	D	0.2 K
Water temperature influence	W	1 K
Thermostatic valve supplied with manual regulating wheel (turning)		60° ≈ 1 K

#### ▀ Technical Specification - chrome TRV head

Minimum regulation calibration (anti-frost position)	$t_s$ min	7°C (*)
Maximum regulation calibration (position)	$t_s$ max	30°C (5)
Saving condition (position)		20°C (3)
Maximum exercise pressure	PN	1000 KPa
Maximum differential pressure (direction of delivery)	$\Delta P$	100 KPa
Maximum differential pressure (direction of return)	$\Delta P$	60 KPa
Minimum nominal flow rate "qm N" (DP=0.1 Bar) angle-straight DN15	$q_m N$	200-220 ltrs/h
Control accuracy according to BS EN 215 - for valves with brass cap unit	CA	0.6 K
Maximum exercise temperature		110°C
Product storage (in original packaging)		-25°C ÷ 50°C
Hysteresis	C	0.3 K
Authority	a	0.9
Feedback	Z	25 min
Differential pressure influence	D	0.2 K
Thermostatic valve supplied with manual regulating wheel (turning)		60° ≈ 1 K

### THERMOSTATIC RADIATOR VALVES

#### ■ Mounting Process

1. Remove the manual adjustment hand-wheel un-screwing it in counter-clockwise.
2. Set the thermostatic head numbered handle on "5" position, turning it in counter-clockwise.
3. Set the thermostatic head on the valve body centering the hexagon of the head and leaving the reference window adjustment up-sight or at least in visible position.
4. Screw the knurled metallic ring of the thermostatic head to the valve body till the complete locking (avoiding to force too much). After the head mounting process, turn the numbered handle for a few times from position "5" to position "\*" for the parts settlement.

#### ■ Temperature Regulation

Regulation is obtained rotating the hand knob till the symbol correspondent to the desired temperature is positioned into the reference window. (approximate values)

Symbol	0	*	1	2	3	4	5
Value °C	4 ~	7	10	15	20	25	30

(\*) represents the anti-frost position, where the valve opens only when the environment atmosphere temperature goes below 7°C.

It is suggested during long absences in the winter time or while aerating the place.

At position "0" the anti frost protection is not guaranteed.

The minimum declared temperature according to the norm is at position "\*".

Warning: To preserve the good operation of the thermostatic head we suggest to remove it during the summer time, while the heating system is inactive.

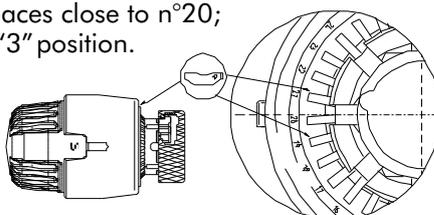
#### ■ Temperature Restriction

After temperature regulation it is suggested to block the knob on itself or to limit the operation zone.

##### VALVE / THERMOSTATIC HEAD

Blocking wheel on position "3" (20°C) example:

- Set no. 3 into the symbol visualization window;
- You will see numbers on the wheel, those numbers are ref. to the temperature regulated by the thermostatic head;
- Search n°20 (correspondent to 20°C);
- Insert the dedicated inserts into the spaces close to n°20;
- The wheel will be blocked on symbol "3" position.



If you want to limit the regulation to a wider range of value displace the inserts into the desired positions.

#### ■ Installation Warnings

It is recommended to assemble the thermostatic head in horizontal position.

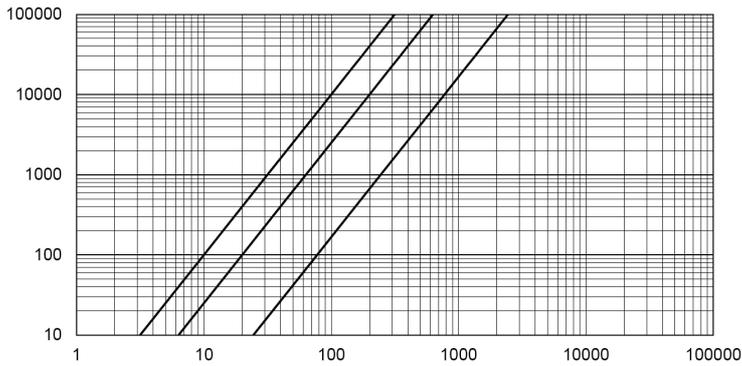
The thermostatic valves' sensitive element must not be installed in: niches, boxes, behind curtains, or directly exposed to sunlight.

The temperature detected by the sensitive element could be altered in case the installation is not following the above recommendations.

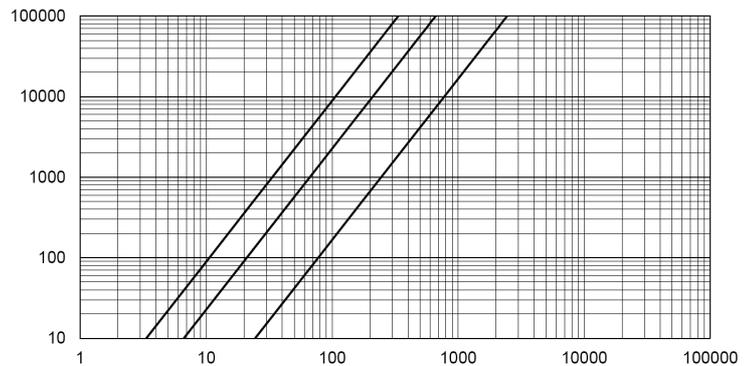


### THERMOSTATIC RADIATOR VALVES

Valve angle DN15 series / Thermostatic head series



Valve angle DN 10 series / Thermostatic head series



#### Dimensional Drawing

