

VALENCIA Radiator Valve Range

PRODUCT DATA SHEET



Application

Thermostatic Radiator Valves (TRVs) provide local control of room temperatures to maintain comfort and save energy. TRVs sense the air temperature around them and control the flow of water through the radiator to which they are fitted, to maintain and limit the temperature within the room.

Air from the room passes over the sensor of the TRV causing the liquid to expand as the temperature rises. The sensor acts onto the valve spindle causing the TRV insert to close.

When the temperature falls, the liquid contracts and the spring-loaded valve spindle opens. Only the amount of water required to maintain the room temperature set on the radiator thermostat will flow into the radiator.

New research carried out on behalf of TACMA, the Controls Association within BEAMA, shows that, in a typical UK house, heating system energy consumption can be reduced by up to 40% through the installation of TRVs in addition to a Room Thermostat or Programmable Room Thermostat and that installation costs could be recovered within a year.

These tests also showed that by providing local temperature control in every room, TRVs can significantly improve comfort for householders by providing better heat distribution around a dwelling, not achieved without TRVs, even if the system is correctly balanced.

Features

- All Valencia TRVs are 'A' Rated for efficiency using liquid sensors to provide consistent and longer lasting performance
- The TRV head may be mounted vertically or horizontally by swapping the tailpiece and pipe fittings
- The Valencia Valve bodies are fully compatible with a wide range of other Honeywell TRV heads offering alternative finishes, remote sensor and Vandal resistant versions as well as the Evohome electronic TRV head
- All Valencia valve bodies allow bi-directional water flow which means that valves can be installed without the need to adjust the insert flow direction after installation
- Quiet operation
- Straight and Angled bodies with 15mm, 10mm or 8mm compression connections or 10mm Pushfit fittings are available
- 6mm play on radiator tailpiece to allow for variation in radiator distance from the valve.
- The integrated balancing insert allows the system to be balanced and remain balanced when radiator is removed for decorating or replacement.

Specification

- European Standard EN 215 and Keymark approved
- Suitable for heating water quality to VDI2035
- VT117/VTL120 setting range : 1 – 26°C
- VT200/VTL200 setting range : 6 – 26°C
- TRV Head connection size : M30 x 1.5mm
- Closing dimension: 11.5 mm
- Stroke: 2,5 mm
- Specific stroke (TRV head): 0.22 mm/K
- Maximum Water Temperature: 130°C
- Maximum Water Pressure: 10 bar
- Maximum Differential Pressure: 1.0 bar
- Max DP to ensure quiet operation: 0.2 bar
- DN15 angle kvs: 1.57 m3/h
- DN15 straight kvs: 0.87 m3/h
- Nominal flow: 190 kg/h

Please Note:

- Heating system water quality should conform with VDI-Guideline 2035
- Additives must be suitable for **EPDM** seals
- The system must be flushed with all valves fully open

Design

TRV head:

- Plastic Handwheel (T200 has a chrome plated metal cap)
- VT200/VTL200 metal-plated chrome or brushed metal finish body variants
- Nickel or Chrome plated metal connection ring
- Internal metal liquid filled brass sensor

TRV valve:

- Chrome plated brass angle or straight valve housing PN10 DN15
- Dimensions according EN215, appendix A, series GB
- Integrated (SLGB) balancing insert made of brass with EPDM O-rings, soft seals and stainless steel spindle
- Plastic decorator cap
- Chrome plated union nuts and radiator tailpiece
- Brass compression olives

Lockshield valve:

- Chrome plated brass angle or straight housing PN10 DN15
- Brass insert
- Plastic protection cap
- Chrome plated union nuts and radiator tailpiece
- Brass compression olives

EN215

| | Thera-100 with liquid sensor | Thera-200 with liquid sensor | EN215 requirements |
|--|---------------------------------|---------------------------------|-----------------------|
| Min. setpoint temperature (*-position) | 6°C (43°F) | 6°C (43°F) | 5...12°C (41...54°F) |
| Max. setpoint temperature | 26°C (79°F) | 26°C (79°F) | ≤ 32°C (90°F) |
| Hysteresis | 0.4K | 0.25K | ≤ 1.0K |
| Influence of differential pressure | 0.4K | 0.3K | ≤ 1.0K |
| Influence of heating medium | 0.9K | 1.0K | ≤ 1.5K |
| Response time | 23 min. | 20 min. | ≤ 40 min. |

NOTE: All °C- and °F-values specified at ideal incident flow. This can differ from stated values depending on installation position and air flow.

NOTE: Influence of differential pressure depends on TRV body used.

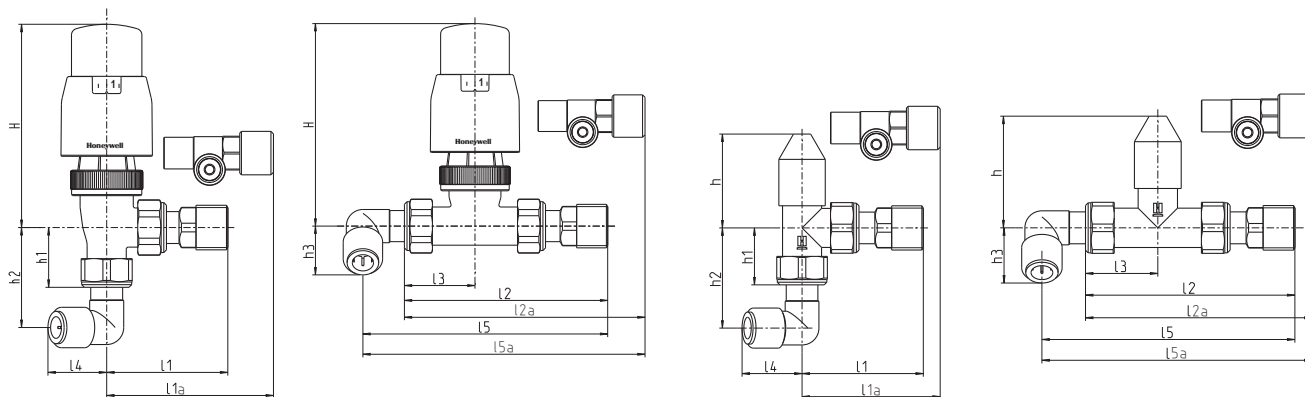
TRV Settings

| | closed | 6°C | 8°C | 12°C | 16°C | 20°C | 23°C | 26°C |
|----------------|--------|-----|-----|------|------|------|------|------|
| VT117 / VTL120 | 0 | * | 1 | 2 | 3 | • | 5 | 6 |
| VT200 / VTL200 | N/A | * | 1 | 2 | 3 | 4 | 5 | 6 |

NOTE: Values approximate. Heating can freeze when radiator thermostats with zero-position are set at position '0'.
Zero-position is also thermostatically controlled - when temperature falls the TRV may open.

Classic TRV

Dimension, part numbers and descriptions

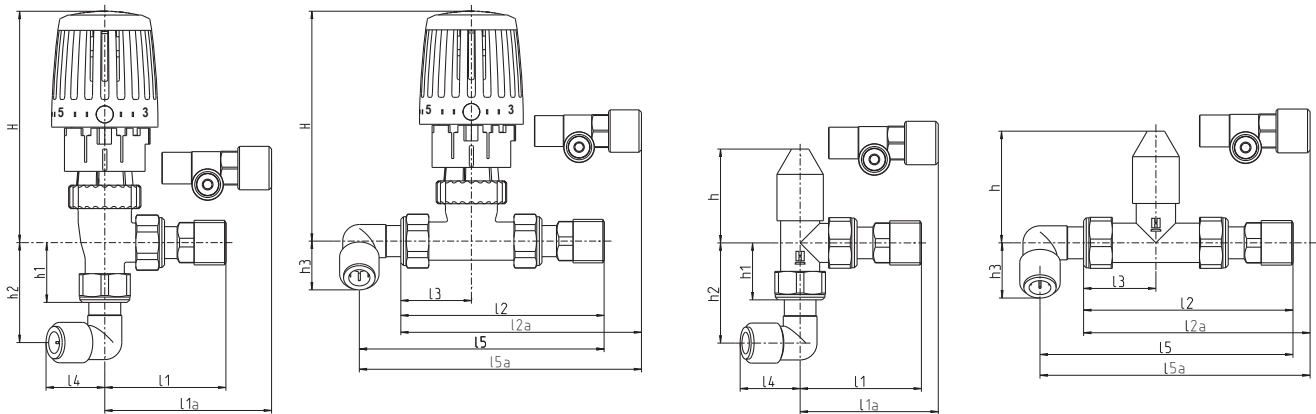


| Part Number | H | h | h1 | h2 | h3 | l1 | l1a | l2 | l2a | l3 | l4 | l5 | l5a |
|---------------|----|----|----|----|----|----|-----|-----|-----|----|----|-----|-----|
| VT200-15S | 95 | | | | | | | 103 | | 39 | | | |
| VT200-15A | 95 | | 32 | | | 58 | | | | | | | |
| VTL200-08A | 95 | 45 | 32 | | | 58 | | | | | | | |
| VTL200-10A | 95 | 45 | 32 | | | 58 | | | | | | | |
| VTL200-15A | 95 | 45 | 32 | | | 58 | | | | | | | |
| VTL200-15A-C | 95 | 45 | 32 | | | 58 | | | | | | | |
| VTL200-15A-D | 95 | 45 | 32 | | | | 69 | | | | | | |
| VTL200-15A-P | 95 | 45 | 32 | 48 | | 58 | | | | | 28 | | |
| VTL200-15A-DP | 95 | 45 | 32 | 48 | | | 69 | | | | 28 | | |
| VTL200-08S | 95 | 52 | | | | | | 103 | | 39 | | | |
| VTL200-10S | 95 | 52 | | | | | | 103 | | 39 | | | |
| VTL200-15S | 95 | 52 | | | | | | 103 | | 39 | | | |
| VTL200-15S-C | 95 | 52 | | | | | | 103 | | 39 | | | |
| VTL200-15S-D | 95 | 52 | | | | | | | 116 | 39 | | | |
| VTL200-15S-P | 95 | 52 | | | 28 | | | 103 | | 39 | | 118 | |
| VTL200-15S-DP | 95 | 52 | | | 28 | | | | 116 | 39 | | | 131 |

| Part Number | Type | Size | Pattern | Ancillary Parts |
|---------------|--------------------------|-----------------------|----------|---------------------|
| VT200-15S | Classic TRV | 15mm | Straight | |
| VT200-15A | Classic TRV | 15mm | Angled | |
| VTL200-08A | Classic TRV + Lockshield | 8mm | Angled | |
| VTL200-10A | Classic TRV + Lockshield | 10mm | Angled | |
| VTL200-15A | Classic TRV + Lockshield | 15mm | Angled | |
| VTL200-15A-C | Classic TRV + Lockshield | 15mm | Angled | Chrome TRV Head |
| VTL200-15A-D | Classic TRV + Lockshield | 15mm | Angled | Drain-off tailpiece |
| VTL200-15A-P | Classic TRV + Lockshield | 10mm Pushfit Fittings | Angled | |
| VTL200-15A-DP | Classic TRV + Lockshield | 10mm Pushfit Fittings | Angled | Drain-off tailpiece |
| VTL200-08S | Classic TRV + Lockshield | 8mm | Straight | |
| VTL200-10S | Classic TRV + Lockshield | 10mm | Straight | |
| VTL200-15S | Classic TRV + Lockshield | 15mm | Straight | |
| VTL200-15S-C | Classic TRV + Lockshield | 15mm | Straight | Chrome TRV Head |
| VTL200-15S-D | Classic TRV + Lockshield | 15mm | Straight | Drain-off tailpiece |
| VTL200-15S-P | Classic TRV + Lockshield | 10mm Pushfit Fittings | Straight | |
| VTL200-15S-DP | Classic TRV + Lockshield | 10mm Pushfit Fittings | Straight | Drain-off tailpiece |

Traditional TRV

Dimension, part numbers and descriptions

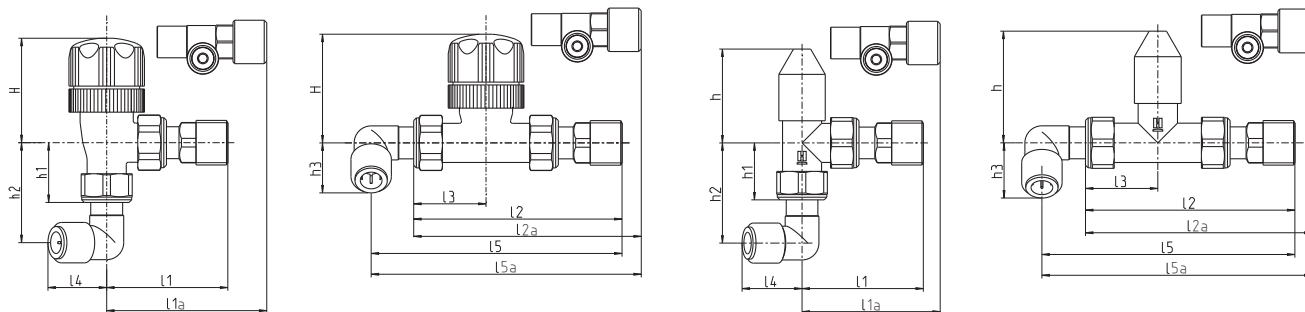


| Part Number | H | h | h1 | h2 | h3 | l1 | l1a | l2 | l2a | l3 | l4 | l5 | l5a |
|---------------|-----|----|----|----|----|----|-----|-----|-----|----|----|-----|-----|
| VT117-15S | 102 | | | | | | | 103 | | 39 | | | |
| VT117-15A | 102 | | 32 | | | 58 | | | | | | | |
| VTL120-08A | 102 | 45 | 32 | | | 58 | | | | | | | |
| VTL120-10A | 102 | 45 | 32 | | | 58 | | | | | | | |
| VTL120-15A | 102 | 45 | 32 | | | 58 | | | | | | | |
| VTL120-15A-D | 102 | 45 | 32 | | | | 69 | | | | | | |
| VTL120-15A-P | 102 | 45 | 32 | 48 | | 58 | | | | | 28 | | |
| VTL120-15A-DP | 102 | 45 | 32 | 48 | | | 69 | | | | 28 | | |
| VTL120-08S | 102 | 52 | | | | | | 103 | | 39 | | | |
| VTL120-10S | 102 | 52 | | | | | | 103 | | 39 | | | |
| VTL120-15S | 102 | 52 | | | | | | 103 | | 39 | | | |
| VTL120-15S-D | 102 | 52 | | | | | | | 116 | 39 | | | |
| VTL120-15S-P | 102 | 52 | | | 28 | | | 103 | | 39 | | 118 | |
| VTL120-15S-DP | 102 | 52 | | | 28 | | | | 116 | 39 | | | 131 |

| Part Number | Type | Size | Pattern | Ancillary Parts |
|---------------|------------------------------|-----------------------|----------|---------------------|
| VT117-15S | Traditional TRV | 15mm | Straight | |
| VT117-15A | Traditional TRV | 15mm | Angled | |
| VTL120-08A | Traditional TRV + Lockshield | 8mm | Angled | |
| VTL120-10A | Traditional TRV + Lockshield | 10mm | Angled | |
| VTL120-15A | Traditional TRV + Lockshield | 15mm | Angled | |
| VTL120-15A-D | Traditional TRV + Lockshield | 15mm | Angled | Drain-off tailpiece |
| VTL120-15A-P | Traditional TRV + Lockshield | 10mm Pushfit Fittings | Angled | |
| VTL120-15A-DP | Traditional TRV + Lockshield | 10mm Pushfit Fittings | Angled | Drain-off tailpiece |
| VTL120-08S | Traditional TRV + Lockshield | 8mm | Straight | |
| VTL120-10S | Traditional TRV + Lockshield | 10mm | Straight | |
| VTL120-15S | Traditional TRV + Lockshield | 15mm | Straight | |
| VTL120-15S-D | Traditional TRV + Lockshield | 15mm | Straight | Drain-off tailpiece |
| VTL120-15S-P | Traditional TRV + Lockshield | 10mm Pushfit Fittings | Straight | |
| VTL120-15S-DP | Traditional TRV + Lockshield | 10mm Pushfit Fittings | Straight | Drain-off tailpiece |

Traditional TRV - Matching Manual Valve

Dimension, part numbers and descriptions

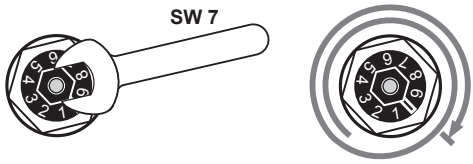


| Part Number | H | h | h1 | h2 | h3 | l1 | l1a | l2 | l2a | l3 | l4 | l5 | l5a |
|---------------|----|----|----|----|----|----|-----|-----|-----|----|----|----|-----|
| VHL120-08A | 52 | 45 | 32 | | | 58 | | | | | | | |
| VHL120-10A | 52 | 45 | 32 | | | 58 | | | | | | | |
| VHL120-15A | 52 | 45 | 32 | | | 58 | | | | | | | |
| VHL120-15A-D | 52 | 45 | 32 | | | | 69 | | | | | | |
| VHL120-15A-P | 52 | 45 | 32 | 48 | | 58 | | | | | 28 | | |
| VHL120-15A-DP | 52 | 45 | 32 | 48 | | | 69 | | | | 28 | | |
| VHL120-08S | 52 | 52 | | | | | | 103 | | 39 | | | |
| VHL120-10S | 52 | 52 | | | | | | 103 | | 39 | | | |
| VHL120-15S | 52 | 52 | | | | | | 103 | | 39 | | | |
| VHL120-15S-D | 52 | 52 | | | | | | | 116 | 39 | | | |
| VHL120-15S-P | 52 | 52 | | | 28 | | | 103 | | 39 | | | |
| VHL120-15S-DP | 52 | 52 | | | 28 | | | | 116 | 39 | | | 131 |

| Part Number | Type | Size | Pattern | Ancillary Parts |
|---------------|-----------------------|-----------------------|----------|---------------------|
| VHL120-08A | Matching Manual Valve | 8mm | Angled | |
| VHL120-10A | Matching Manual Valve | 10mm | Angled | |
| VHL120-15A | Matching Manual Valve | 15mm | Angled | |
| VHL120-15A-D | Matching Manual Valve | 15mm | Angled | Drain-off tailpiece |
| VHL120-15A-P | Matching Manual Valve | 10mm Pushfit Fittings | Angled | |
| VHL120-15A-DP | Matching Manual Valve | 10mm Pushfit Fittings | Angled | Drain-off tailpiece |
| VHL120-08S | Matching Manual Valve | 8mm | Straight | |
| VHL120-10S | Matching Manual Valve | 10mm | Straight | |
| VHL120-15S | Matching Manual Valve | 15mm | Straight | |
| VHL120-15S-D | Matching Manual Valve | 15mm | Straight | Drain-off tailpiece |
| VHL120-15S-P | Matching Manual Valve | 10mm Pushfit Fittings | Straight | |
| VHL120-15S-DP | Matching Manual Valve | 10mm Pushfit Fittings | Straight | Drain-off tailpiece |

Radiator Balancing

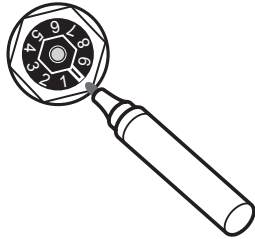
1.



Valves are supplied in the 'fully open' position. To start the Balancing setting, turn the insert dial clockwise until fully closed (7mm wrench required)


Note : Do not over tighten or damage may result

2.



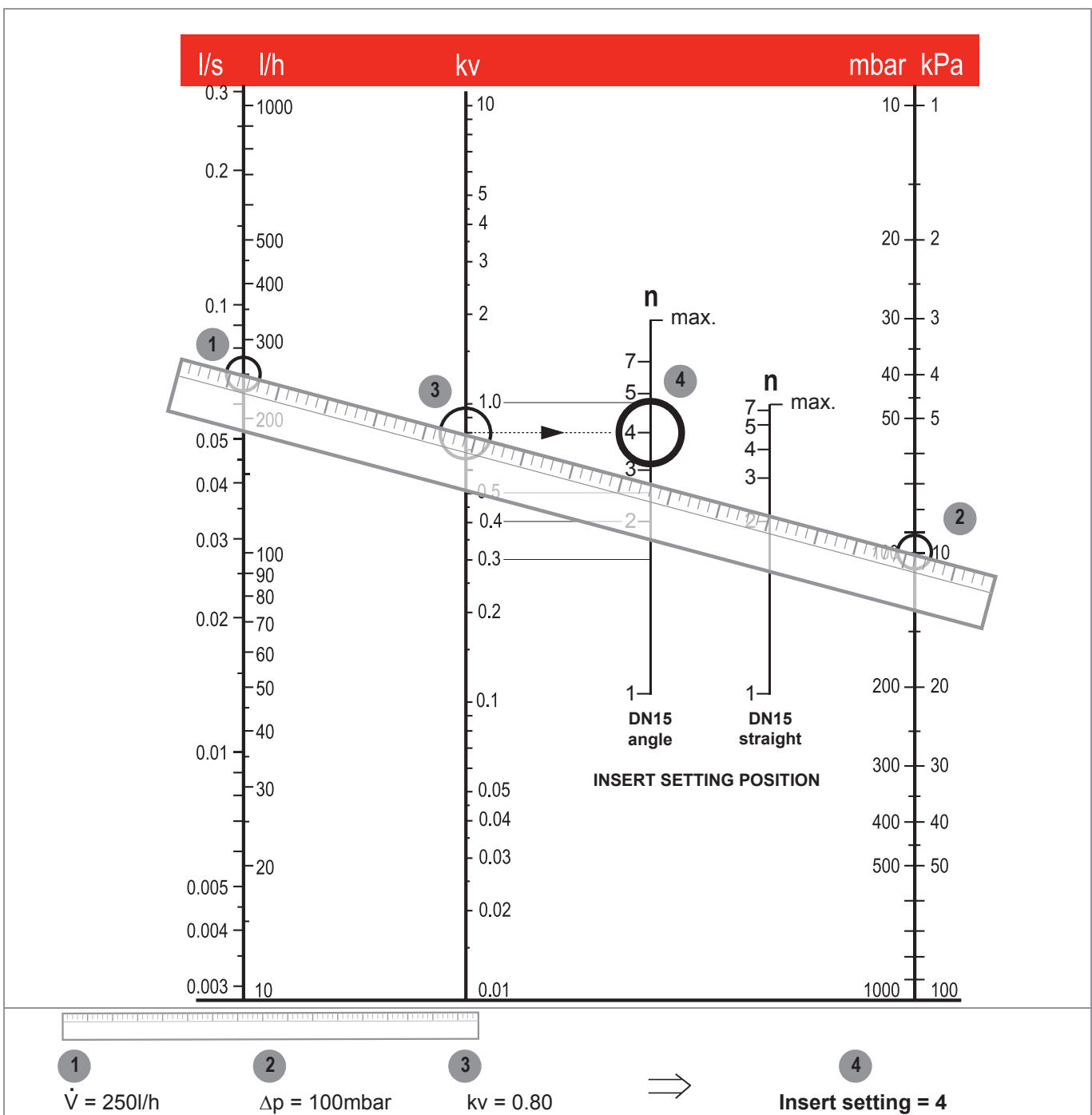
Mark the start position on the brass insert

3.

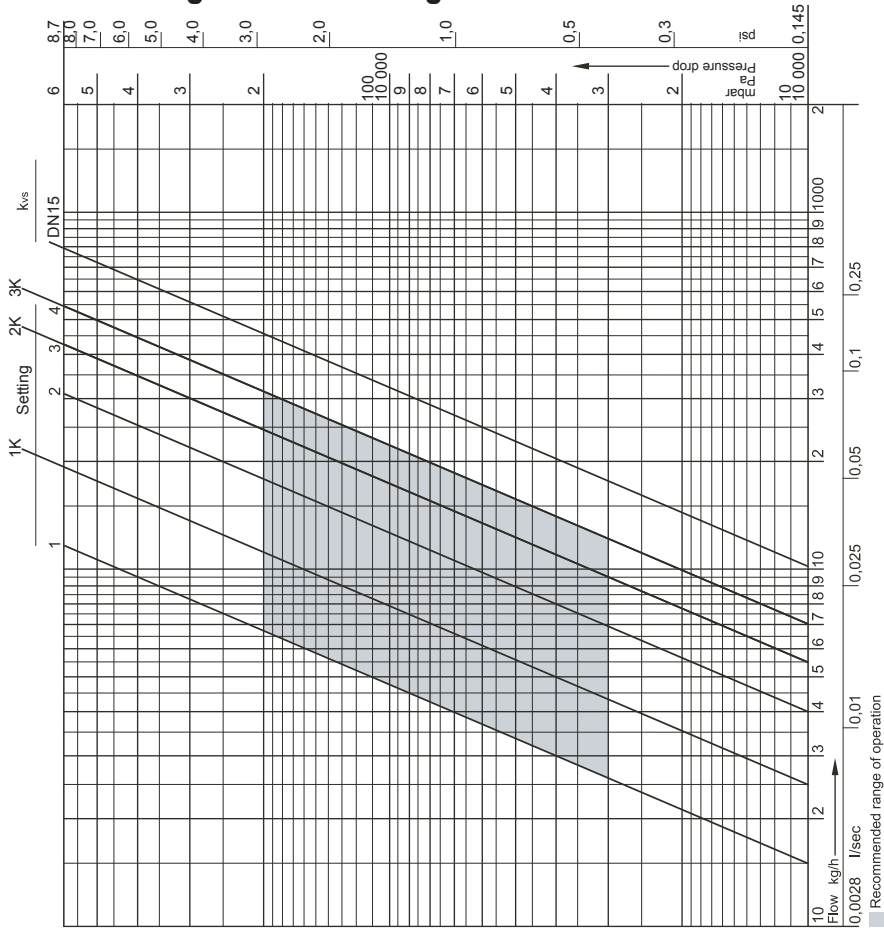


Check the required setting using the chart below and turn the insert dial anti-clockwise until fully the number matches the mark on the insert.

Example 1 = setting 4
Example 2 = setting 14 (fully open)



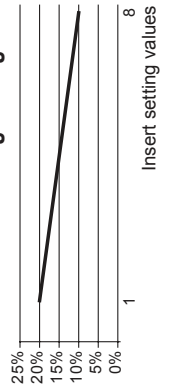
Flow Diagram DN15 Straight



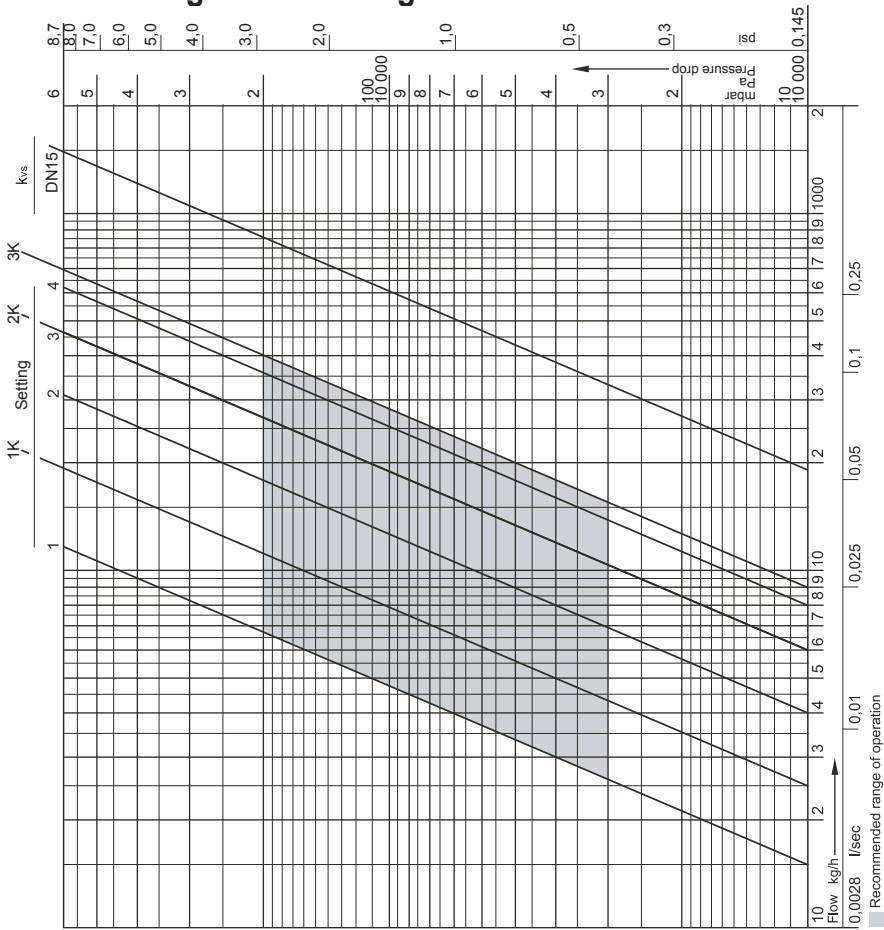
| Balancing setting | 1 | 2 | 3 | 4 | 5 | 7 | 14= open = kvs |
|----------------------------|------|------|------|------|------|------|----------------|
| k_v-value | 0.15 | 0.40 | 0.55 | 0.70 | 0.85 | 0.95 | 1.00 |
| c_v-value | 0.18 | 0.47 | 0.64 | 0.82 | 0.99 | 1.11 | 1.17 |

| P-Band | 1K | 2K | 3K |
|----------------------------|------|------|------|
| k_v-value | 0.25 | 0.55 | 0.70 |
| c_v-value | 0.29 | 0.64 | 0.82 |

Tolerances for Balancing Setting Values



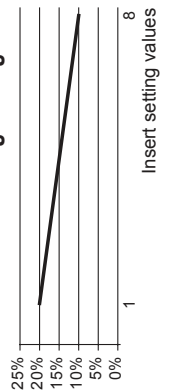
Flow Diagram DN15 Angle










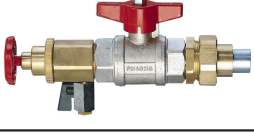



| Balancing setting | 1 | 2 | 3 | 4 | 5 | 7 | 14= open = kvs |
|----------------------------|------|------|------|------|------|------|----------------|
| k_v-value | 0.15 | 0.40 | 0.60 | 0.80 | 1.10 | 1.40 | 1.90 |
| c_v-value | 0.18 | 0.47 | 0.70 | 0.93 | 1.28 | 1.63 | 2.22 |

| P-Band | 1K | 2K | 3K |
|----------------------------|------|------|------|
| k_v-value | 0.25 | 0.60 | 0.90 |
| c_v-value | 0.29 | 0.70 | 1.05 |

Tolerances for Balancing Setting Values



Accessories

| | Part Number | Description |
|---|---------------------|---|
|  | T1001W0GB | White Traditional TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to a TRV. |
|  | T4021GB | Classic White / Chrome TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to a TRV |
|  | T4221GB | Classic Polished Chrome TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to a TRV |
|  | T4321GB | Classic Black / Chrome TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to a TRV |
|  | T4111GB | Classic Brushed Chrome TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to a TRV |
|  | HR92UK | White Evohome Electronic TRV upgrade head. May be used to upgrade 'old' TRV heads or used on any VHL120 'Manual' TRV bodies to convert them to an electronic TRV |
|  | V120-15A | Valencia 15mm Angled TRV replacement body only (x 1) |
|  | VA8200A001 | Service tool to clean or replace TRV inserts, without the need to drain down the heating system (x 1) |
|  | VS1200SLGB11 | Replacement valve (SLGB) integrated balancing insert (x 1) |
|  | H100-1/2A | Pack of 10x Manual Handwheels |
|  | TA6900A001 | White Theft Protection Ring (x 1) |

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