

Data Sheet

RA-U Low flow valve with presetting

Application



013G3022

013G3292

RA-U valves can be used with all types of thermostatic elements in the Danfoss series and with thermal actuators type TWA.

The valve are supplied with a protective cap which can be used for manual regulation during the construction phase.

RA-U valves are used in two-pipe heating systems and is available with the following setting ranges for max. water flow:
kv = 0.016 - 0.30 m³/h.

To be able to distinguish between other valves of the series the protective cap is yellow.

Ordering

| Type | Design | Connection | | Code Number |
|----------------------|----------|--------------------|--------|-----------------|
| | | Inlet | Outlet | |
| RA-U 10 | Straight | R _p 3/8 | R 3/8 | 013G3022 |
| RA-U 10 (tail piece) | Straight | R _p 3/8 | R 3/8 | 013G3292 |

Accessories

| Type | | Code Number |
|------|--------------------------------|-----------------|
| | Presetting key for RA-U valves | 013G3028 |
| | Δp tool for pump optimization | 013G7861 |
| | PFM100 measuring instrument | 003L8260 |
| | Gland-seal | 013G0290 |

Quality

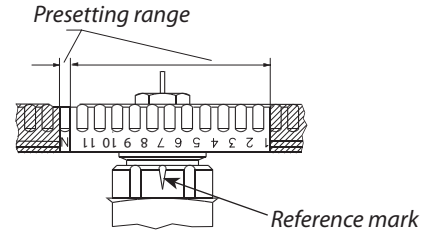
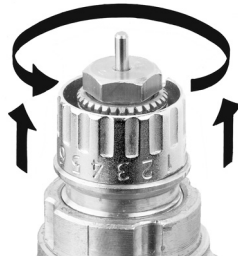


RA-U valves are certified according to the European standard EN 215. Danfoss radiator thermostats are manufactured in factories, assessed and certified by DNV GL against ISO 9001 and ISO 14001.

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Presetting



The presetting values of the integrated valves can be adjusted easily and accurately a special presetting tool 013G3028 must be used. (Factory setting: 'N'):

1. Remove the protective cap or the thermostatic sensor.
2. Use thin end of the presetting tool (013G3028) and loosen the special nut inside the presetting ring.
3. Use thick end of tool on top of preset ring to adjust to correct presetting value (seen on tool). Adjust scale to ref mark indication on valve.
4. Re-tighten special nut with thin end of tool.

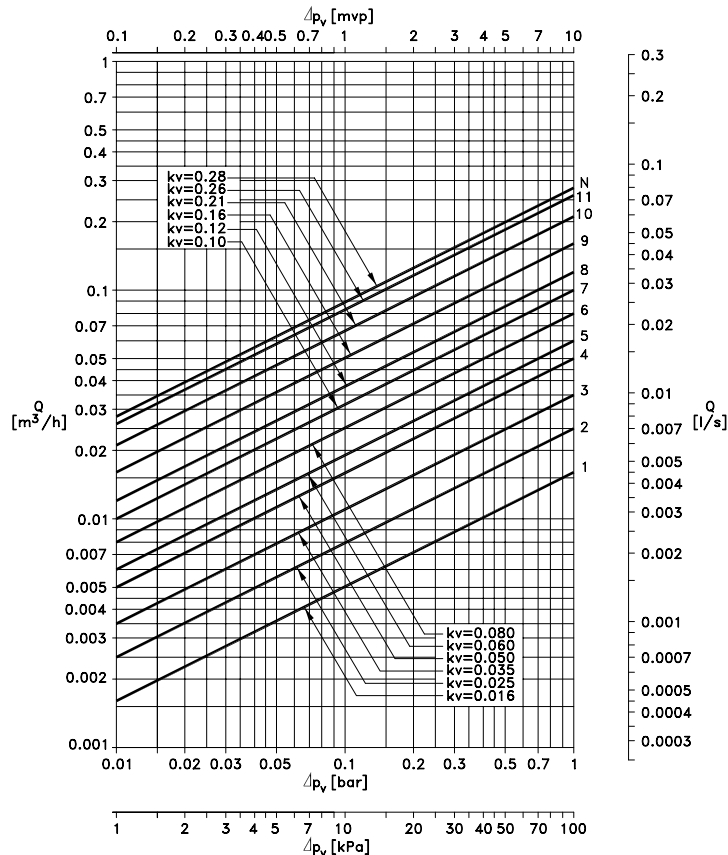
Presetting can be selected infinitely variably within the range of 1 to 11. At setting 'N' the valve is fully open. Setting in the shaded areas of the drawing should be avoided.

When the radiator thermostat has been installed, the presetting is protected against unintended regulation. In addition the special nut inside the presetting ring protects.

| Type | Kv Value | | | | | | | | | | | | Kvs | Code Number |
|---------|----------|-------|-------|------|------|------|------|------|------|------|------|------|------|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | N | | |
| RA-U 10 | 0.016 | 0.025 | 0.035 | 0.05 | 0.06 | 0.08 | 0.10 | 0.12 | 0.16 | 0.21 | 0.26 | 0.28 | 0.30 | 013G3022 |
| | 0.016 | 0.025 | 0.035 | 0.05 | 0.06 | 0.08 | 0.10 | 0.12 | 0.16 | 0.21 | 0.26 | 0.28 | 0.30 | 013G3292 |

The Kv values indicate the flow rate (Q) in m³/h at a given lift height and a pressure drop (Δp) across the valve of 1 bar (100 kPa). At setting N, the kv value according to EN 215-1 is specified at Xp = 2 °C (P-band). At lower setting values, Xp decreases down to 0.5 °C at setting 1. At settings between 1 and N, Xp is thus between 0.5 °C and 2 °C. Xp = 2 °C means that the valve is closed at a temperature 2 °C above the set value. The Kvs value indicates the flow at full lifting height, i.e. fully open valve.

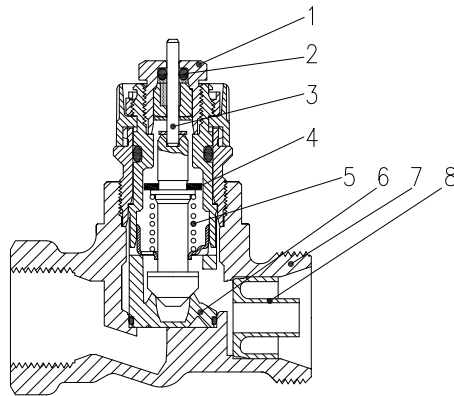
Capacities



Datasheet

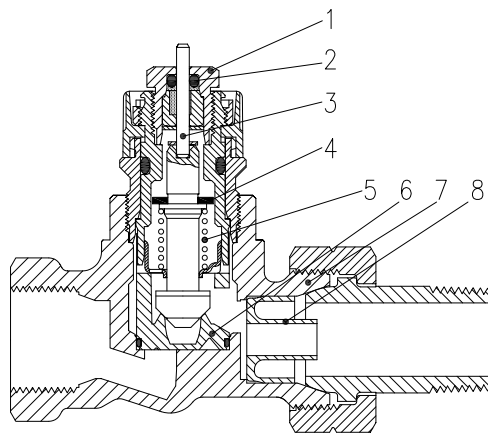
RA-U Low flow valve with presetting

Construction



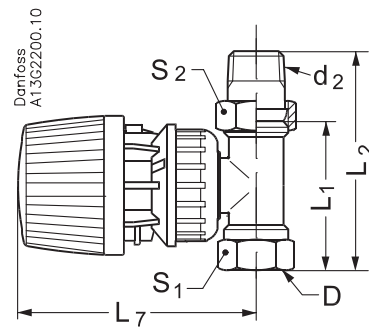
013G3022

1. Gland-seal
2. O-ring
3. Pressure pin
4. Seal
5. Regulation spring
6. Setting dial
7. Valve body
8. Kv-nozzle



013G3292

Dimensions



| Code | Type | Connection | | | L ₁ | L ₂ | L ₇ | Arc.flats. | |
|----------|---------|------------|--------------------|----------------|----------------|----------------|----------------|------------|----|
| | | DN | D | d ₂ | | | | S1 | S2 |
| 013G3022 | RA-U 10 | 10 | R _p 3/8 | - | 50 | - | 96 | 23 | - |
| 013G3292 | RA-U 10 | 10 | R _p 3/8 | R 3/8 | 50 | 75 | 96 | 23 | 27 |

Straight valve body with thermostatic sensor RA2990.

Danfoss A/S

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