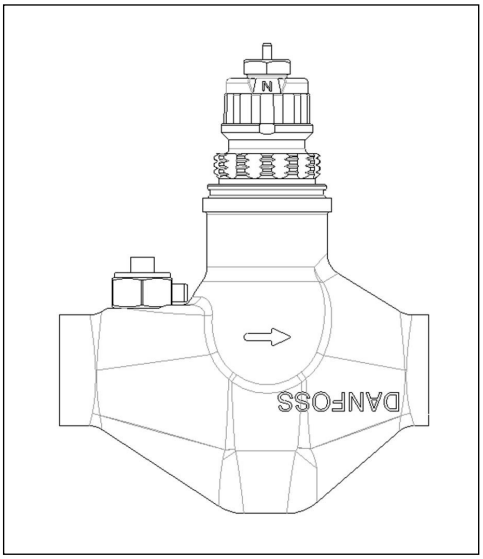
Data sheet

Steel valve with air-vent for convectors in two-pipe heating systems

Application



The steel valve is designed for welding into convectors by the manufacturer. The complete valve consists of a steel valve body, an air-vent and a valve insert with integrated presetting of max. flow through the radiator. The insert has connection for all Danfoss RA 2000 thermostatic sensors.

The flow capacity of this valve is designed for conventional two-pipe heating systems.

Code and technical data

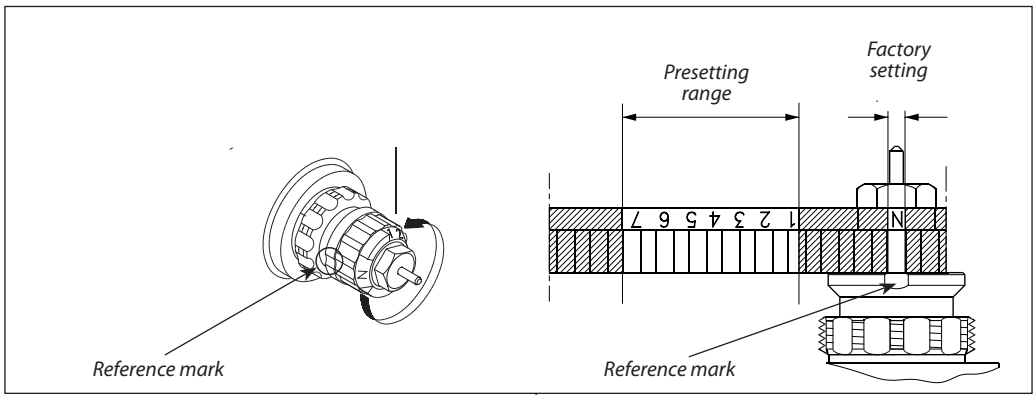
Part	Code no.
Valve insert with RA 2000 sensor connection	**013G8370**
Steel valve body, straight pattern, welding connections	**013L1963**
Air-vent	**640G0168**
Spare part: Gland seal for 013L0370, 10 pcs./pack	**013L0669**
Spare part: Cover cap, black	**013G8439**

Code no.	Sensor connection	Presetting									Max. water temp.	Differential pressure [2]		Test press.	Work. press.
		k_v-value [1]								k_{vs}		Rec.	Tech.		
		1	2	3	4	5	6	7	N	N	°C	bar	bar	bar	bar
013G8370	RA 2000	0.14	0.21	0.26	0.32	0.46	0.59	0.73	0.87	1.05	120	0.05-0.2	0.6	~~16~~	10

[1] *k_v-values indicate the flow volume (Q) in m³/h at a pressure loss (Δp) across the valve of 1 bar. $k_v = Q / \sqrt{\Delta p}$. At setting N, the k_v-value in accordance with EN 215 can be stated as Xp = 2 K. At lower preset values, Xp will be reduced until approximately Xp 0.5 at presetting 1. The table shows the average measured values for integrated valves with radiator. The k_{vs}-values indicate the valve capacity, when the valve is fully open.*

[2] *The technical differential pressure indicates the upper limit for a proper valve function. In most two-pipe systems the recommended differential pressure is sufficient. In order to achieve a noiseless function we recommend in smaller systems to apply automatic bypass valves or automatic balancing valves. If pump differential pressure exceeds the recommended max. valve differential pressure it is recommended that an automatic balancing valve type ASV-P/PV is added to the system.*

Presetting



The presetting values of the integrated valves can be adjusted easily and accurately without the use of tools (factory setting: 'N'):

- Remove the protective cap or the thermostatic sensor
- Find the reference mark
- Turn the setting ring until the desired presetting number aligns with the reference mark.

Presetting can be selected within the range of 1 to 7. At setting 'N' the valve is fully open. Setting in the shaded areas of the drawing should be avoided.

Setting 'N' is used when flushing the system.

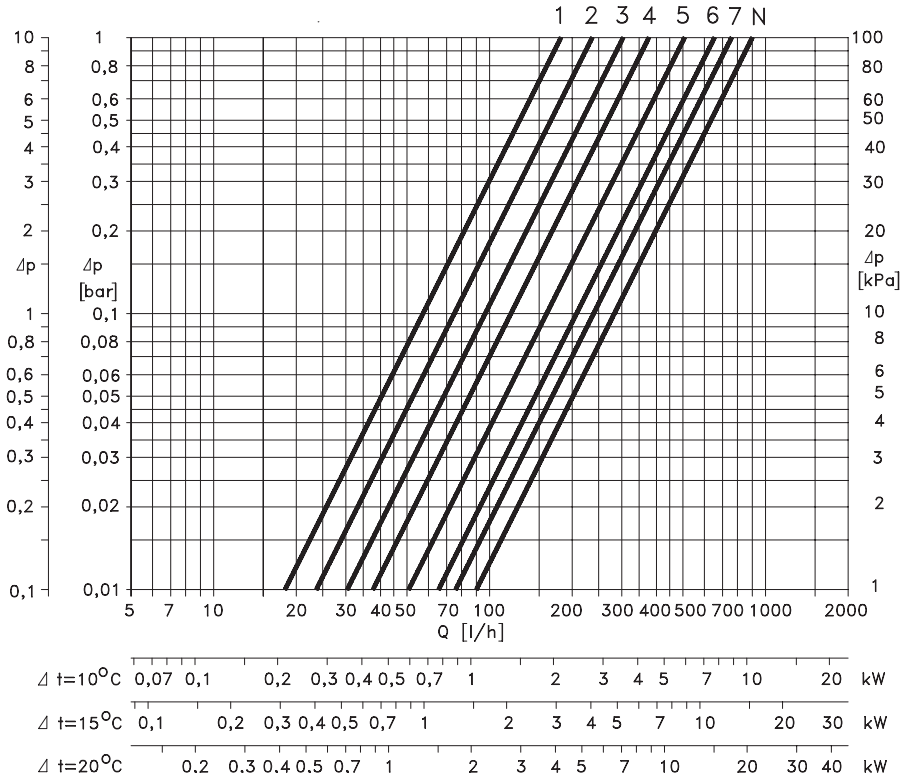
When the thermostatic sensor is fitted, the presetting is hidden and thus protected against unintended alteration.

Materials in contact with water

Valve body	Steel
Valve top	Ms 58
Valve seat	PPS
Throttle nozzle	PPS
Setting dial	ABS Plastic
O-rings	NBR / EPDM
Valve spindle	PPS
Valve cone	NBR
Pressure pin and valve spring	Chrome steel
Air vent/Plug	Brass

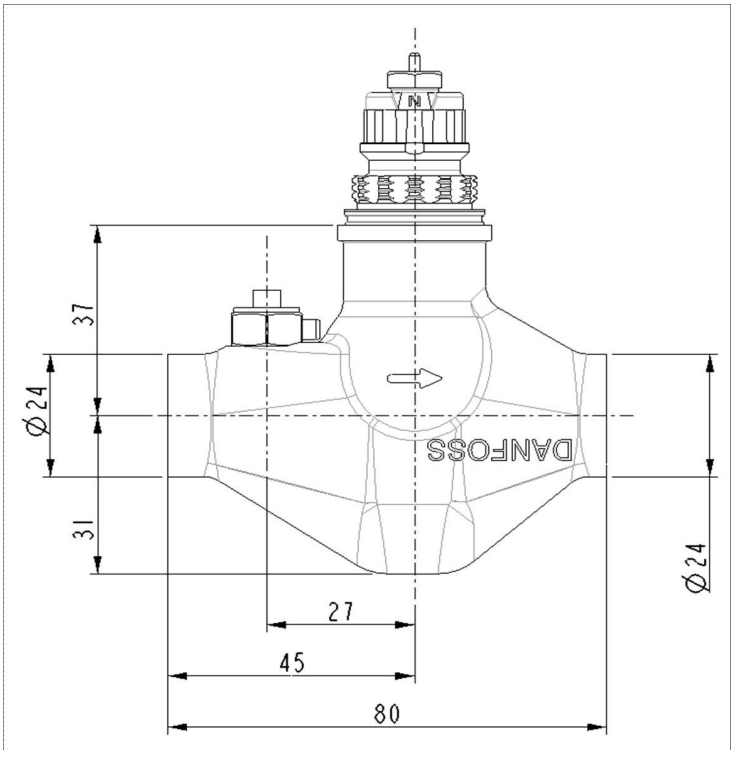
To avoid calcification and corrosion, it is important for the composition of the circulating water to comply with the VDI 2035 guidelines.

Capacities without convector



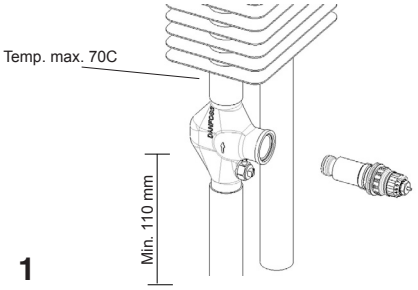
Capacities at Xp = 2K with Danfoss radiator thermostats RTD-N are measured without radiator and connection fittings.

Dimensions

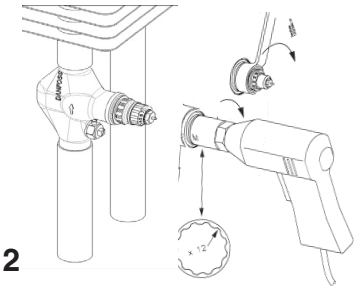


Mounting instructions

Инструкция
по установке встроенного клапана
типа RA-N код 013G8370 в конвектор
INSTRUCTION
Built-in valve, type RA-N, code 013G8370
Installation of built-in valve in convector



1

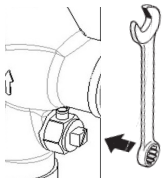


2

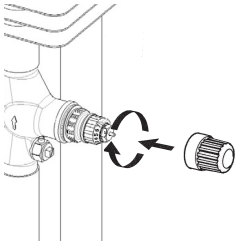
Смочите клапан водой. Вставте клапан в стальной корпус и закрутите по резьбе вручную.
Lubricate using water. Apply built-in valve to the steel valve housing and tighten by hand.

С помощью ключа 22 затяните клапан с вращающим моментом в 30Nm ±10%.

Fasten built-in valve to a torque of 30 Nm ±10%.
Arc flats 22.



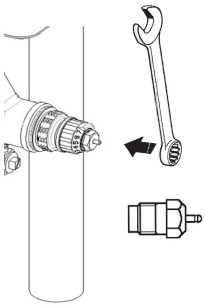
3



4

С помощью ключа 13 затяните воздушный вентиль 10Nm ±10%.
Fasten air-vent to a torque of 10 Nm ±10%.
Arc flats13.

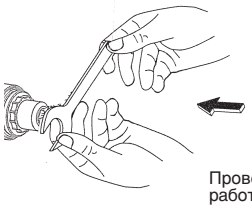
Наденьте на клапан черный защитный колпачек и затяните его
Fit black protection cap. Tighten the cap.



1

Сальник можно менять и во время работы клапана, используя для этого ключ 10.

The gland seal can be replaced while the system is in operation.
Arc flats 10.



2

Проверьте работоспособность шпинделя клапана

Test operation of valve spindle

Замена сальника 013L0669 Replacement of gland seal, Code 013L0669

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