Data sheet

VHX valve sets with RAX thermostatic sensor, for designer radiators and bathroom towel rails

Application

VHX floor connection

VHX wall connection

The VHX-sets are specially designed for towel rails and designer radiators with '50 mm bottom connection' and ½" connection to the radiator.

The VHX-sets include a RAX thermostatic sensor for room temperature regulation.

The sets provides the perfect finishing touch for towel rails. The aesthetically pleasing and compact design allows the sensor to be mounted underneath the towel rail, parallel with the wall.

VHX valves controls the return flow from the radiator and have several features:

- free choice of left/right mounting direction
- available in versions for floor or wall connection
- built-in shut-off function
- four different surfaces matching most radiators

Ordering

VHX set	Colour	Code no. Straight	Code no. Angle
VHX-DUO valve set, with RAX thermostatic sensor	Chrome	**013G4276**	**013G4279**
	Inox	**013G4277**	**013G4280**
	RAL 9016	**013G4278**	**013G4281**
	RAL 9010	**013G4366**	**013G4367**
VHX-MONO valve set, with RAX thermostatic sensor	Chrome	**013G4282**	**013G4285**
	Inox	**013G4283**	**013G4286**
	RAL 9016	**013G4284**	**013G4287**
	RAL 9010	**013G4368**	**013G4369**

Compression fittings	Size	Code no. Nickel plated	Code no. Chrome plated
For steel and copper tubes	8 mm	**013G4108**	-
	10 mm	**013G4110**	**013G4192**
	12 mm	**013G4112**	**013G4193**
	14 mm	**013G4114**	**013G4194**
	15 mm	**013G4115**	**013G4195**
	16 mm	**013G4116**	**013G4196**
For AluPex tubes	12 x 2 mm	**013G4172**	-
	14 x 2 mm	**013G4174**	-
	16 x 2 mm	**013G4176**	**013G4200**
For Pex tubes	12 x 1.1 mm	**013G4143**	**013G4197**
	12 x 2 mm	**013G4142**	-
	14 x 2 mm	**013G4144**	-
	15 x 2.5 mm	**013G4147**	**013G4199**
	16 x 2 mm	**013G4146**	**013G4198**

Accessories	Code no.
Electric heating element - 40 cm - 150 W - 1.2 m w/ Schuko plug [1)]	**013G4167**
Electric heating element - 47 cm - 300 W - 1.2 m w/ Schuko plug [1)]	**013G4168**
Electric heating element - 70 cm - 600 W - 1.2 m w/ Schuko plug [1)]	**013G4169**
Adapter for electric heating element	**013G4166**
O-ring service set for VHX MONO angle valve and VHX DUO angle valve 2)	**013G4179**
O-ring service set for VHX DUO straight valve	**013G4180**
O-ring service set for VHX MONO straight valve	**013G4181**

[1)] Electric heating elements are according to the standard UNEL 47168/68-CEE (7) xvll.

[2)] Complete O-ring replacement of VHX DUO angle valve requires 2 x 013G4179.

Data Sheet **VHX valve sets with RAX thermostatic sensor**

Technical data

Type	Connection		k_v-values [m^3/h] with RAX sensor at setting [1]								
	Radiator	System	1	2	3	4	5	6	7	N	N(k_{vs})
VHX-DUO	G½A	G½	0.12	0.15	0.20	0.25	0.30	0.36	0.42	0.49	0.56
VHX-MONO			0.12	0.15	0.20	0.25	0.30	0.34	0.38	0.40	0.45

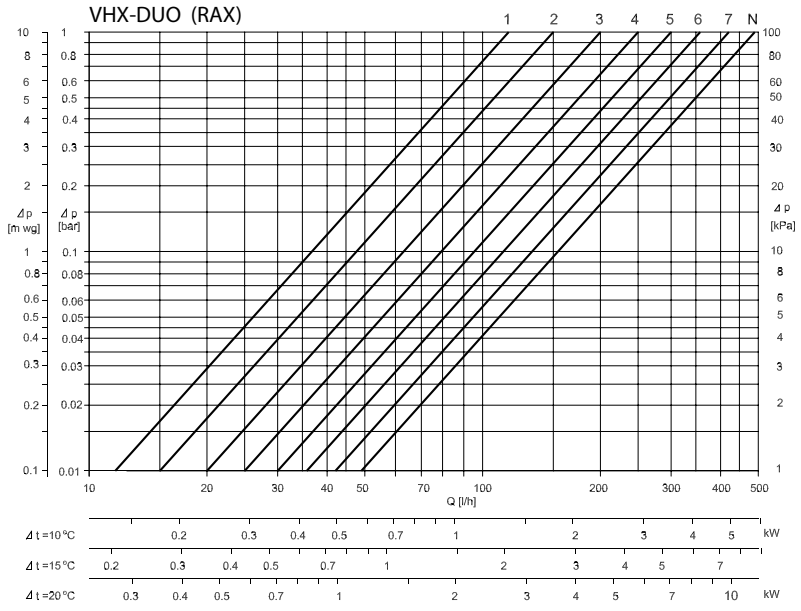
Max. working pressure: 10 bar, Max. differential pressure[2]: 0,6 bar, Test pressure 16 bar, Max. flow temperature: 120 °C.

[1] The k_v-value indicates the water flow (Q) in m^3/h at a pressure drop (Δp) across the valve of 1 bar; $k_v = Q: \sqrt{\Delta p}$. At setting N the k_v-value is stated accor-ding to EN 215, at X_p = 2K i.e. the valve is closed at 2°C higher room temperature. At lower settings the X_p value is reduced to 0.5K of the setting value 1.
The k_{vs}-value states the flow Q at a maximum lift, i.e. at fully open valve at setting N.

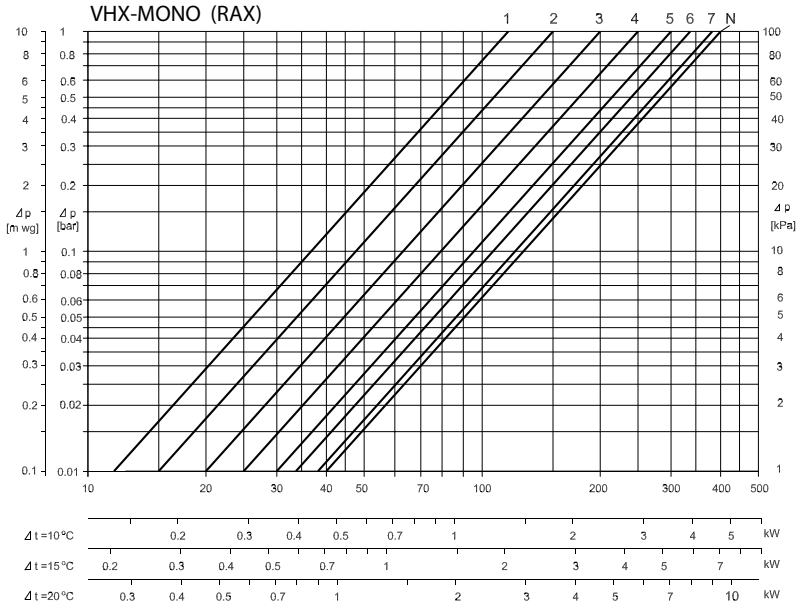
[2] The maximum differential pressure specified is the maximum pressure at which the valves give satisfactory regulation. As with any device which imposes a pressure drop in the system, noise may occur under certain flow/pressure conditions. The differential pressure can be reduced by the use of the Danfoss differential pressure regulators.

Capacities

VHX-DUO (pre-setting)



VHX-MONO (pre-setting)



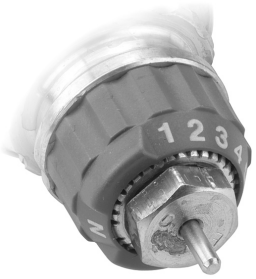
Data Sheet **VHX valve sets with RAX thermostatic sensor**

Temperature setting

RAX thermostatic sensor

0 = *Positive shut off*
❄ = *Frost protection setting*

Pre-setting



Danfoss pre-settable valve assemblies incorporate easy setting adjustment with clearly engraved setting markers scaled from 1 - 7 and N.

Setting values can be set quickly and precisely, without the need for tools, as follows:

- Remove protective cap or sensor.
- Turn Red ring to the desired setting value.

The preset level can be selected in 0.5 increments between 1 and 7 (see chart for flow rates). At setting N the valve is fully open (flushing option).

Installation

VHX-DUO floor connection

Free connection (left or right). Radiator outlet always on thermostat side.

VHX-MONO floor connection

Free connection (left or right). Radiator outlet always on thermostat side.

VHX-DUO wall connection

Free connection (left or right). Radiator outlet always on thermostat side.

VHX-MONO wall connection

Free connection (left or right). Radiator outlet always on thermostat side.

RAX sensor

Mounted directly on the valve with an Allen key (enclosed in set)

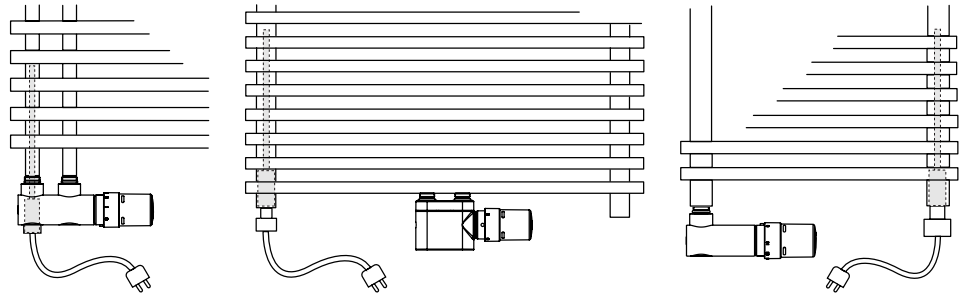
Electric heating element

Danfoss electric heating elements can be mounted in the radiator through the VHX-DUO angle valve.

Mounting of a standard heating element (non-Danfoss) through the valve requires use of the adapter 013G4166.

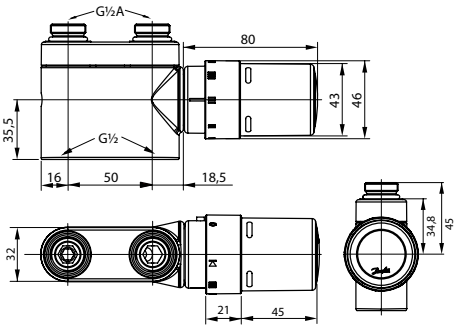
If a heating element is to be used with other VHX valves, a standard heating element (non-Danfoss) has to be mounted directly in the radiator.

Examples: Mounting of an electric heating element

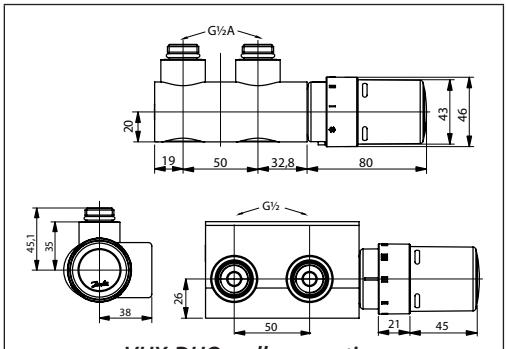


Danfoss *Standard (non-Danfoss)* *Standard (non-Danfoss)*

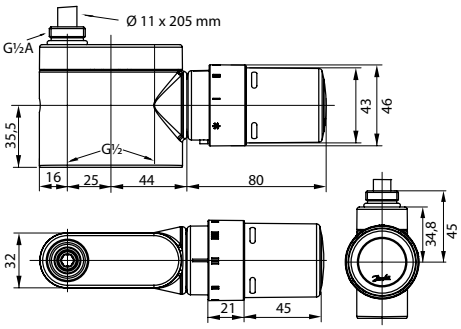
Dimensions



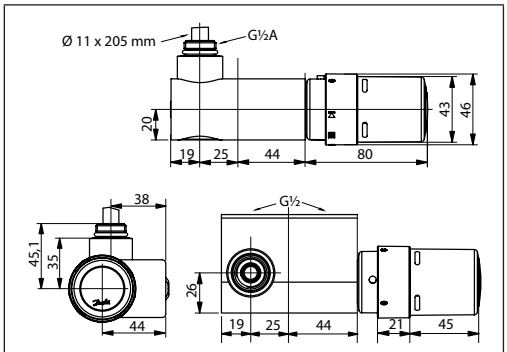
VHX-DUO floor connection



VHX-DUO wall connection



VHX-MONO floor connection



VHX-MONO wall connection