

Data Sheet

# Chrome plated radiator valves type RA-NCX and lockshield valves type RLV-CX

Application



RA-NCX angle



RA-NCX straight



RA-NCX left angle



RLV-CX straight



RLV-CX angle

RA-NCX and RLV-CX is a series of chrome plated radiator valves and lockshield valves, especially designed for use with design radiators. A new tailpiece with an O-ring seal ensures an aesthetically appealing connection to the radiator without the need for sealing tape or compound.

RA-NCX valve bodies are equipped with a  $k_v$  limiting device for pre-setting of max. water flow.

RA-NCX are supplied with a protective cap and adjusting screw, which can be used for manual regulation during the construction phase. The protective cap must not be used as a manual shut off device.

The pressure pin of the gland seal is made of chromium steel and works in a lifetime lubricated O-ring. The complete gland seal can be replaced without draining down the system.

All types of thermostatic sensors in the Danfoss RA 2000 series and RAX design series can be used with RA-NCX.

Compression fittings are available in chrome finish.

RLV-CX lockshield valves enables each radiator to be shut off individually to allow trouble-free maintenance or repair without affecting other radiators in the system.

Max. water flow through RLV-CX is 2.5 m<sup>3</sup>/h. Factory setting is fully open valve.

In order to avoid deposition and corrosion the composition of the hot system water must be in accordance to the VDI 2035 guide line (Verein Deutscher Ingenieure).

Ordering and Data

*RA-NCX radiator valve with integrated pre-setting*

Type	Size	Series	Connection		Code no.
			Inlet	Outlet	
Angle	DN 15	D	R <sub>p</sub> ½	R ½	013G4237
Straight		D			013G4238
Angle right					013G4239
Angle left					013G4240
Angle		F			013G4247
Straight		F			013G4248

Code no.	Pre-setting								
	$k_v\text{-max}^{1)}$ (m <sup>3</sup> /h at $\Delta p = 1$ bar)								$k_{vs}^{2)}$
	1	2	3	4	5	6	7	N	N
013G4237 013G4238 013G4239 013G4240 013G4247 013G4248	0.04 (0.04)	0.09 (0.09)	0.16 (0.16)	0.25 (0.24)	0.36 (0.31)	0.43 (0.37)	0.52 (0.42)	0.73 (0.53)	0.90

<sup>1)</sup>  $k_v$ -values are stated for RA-NCX in connection with RA2000 sensors (RAX sensors). The  $k_v$ -value

indicates the water flow (Q) in m<sup>3</sup>/h at a pressure drop ( $\Delta p$ ) across the valve of 1 bar;  $k_v = Q : \sqrt{\Delta p}$

At setting N the  $k_v$ -value is stated according 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.

<sup>2)</sup> The  $k_{vs}$ -value states the flow Q at a maximum lift, i.e. at fully open valve at setting N.

**RLV-CX lockshield valve**

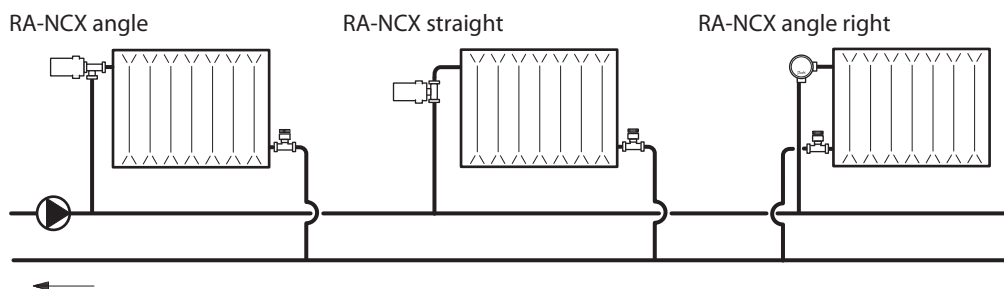
Type	Size	Connection		Flow limitation: $k_v$ -values (m <sup>3</sup> /h) for number of turns										Code no.
		Inlet	Outlet	¼	½	1	1½	2	2½	3	3½	4	$k_{vs}$	
Angle	DN 15	R ½	Rp ½	0.2	0.4	0.65	1.0	1.3	1.7	1.9	2.1	2.3	2.5	003L0273
Straight				003L0274										

Max working pressure: 10 bar      Max differential pressure: 0.6 bar      Test pressure: 16 bar      Max working temperature: 120 °C

**Accessories**

Product	Code no.
Gland seal for RA-NCX (10 pcs.)	013G0290
Drain tap with 3/4" hose nozzle	003L0152
Brass handwheel - temporarily replacement for the thermostat when the radiator is drained	013G3300
Chrome compression fitting for 10 mm steel and copper tubes (10 pcs.)	013G4192
Chrome compression fitting for 12 mm steel and copper tubes (10 pcs.)	013G4193
Chrome compression fitting for 14 mm steel and copper tubes (10 pcs.)	013G4194
Chrome compression fitting for 15 mm steel and copper tubes (10 pcs.)	013G4195
Chrome compression fitting for 16 mm steel and copper tubes (10 pcs.)	013G4196
Chrome compression fitting for 16 x 2.5 mm PEX tubes (10 pcs.)	013G4198
Chrome compression fitting for 15 x 2.5 mm PEX tubes (10 pcs.)	013G4199
Chrome compression fitting for 16 x 2 mm AluPEX tubes (10 pcs.)	013G4200
O-rings for self sealing tailpiece (5 pcs)	013G4149

Principle

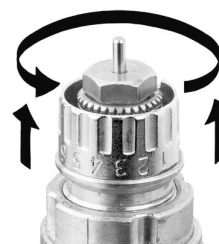


Setting

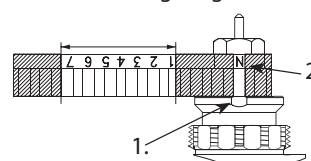
**RA-NCX**

The presetting values can be adjusted easily and accurately without the use of tools:

- Find the reference mark
- Lift and turn the setting ring until the desired presetting aligns with the reference mark



Presetting range



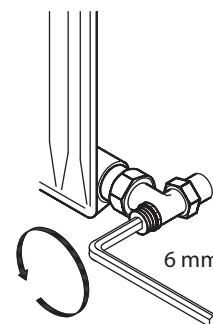
1. Reference mark
2. Factory setting / one-pipe system

**RLV-CX**

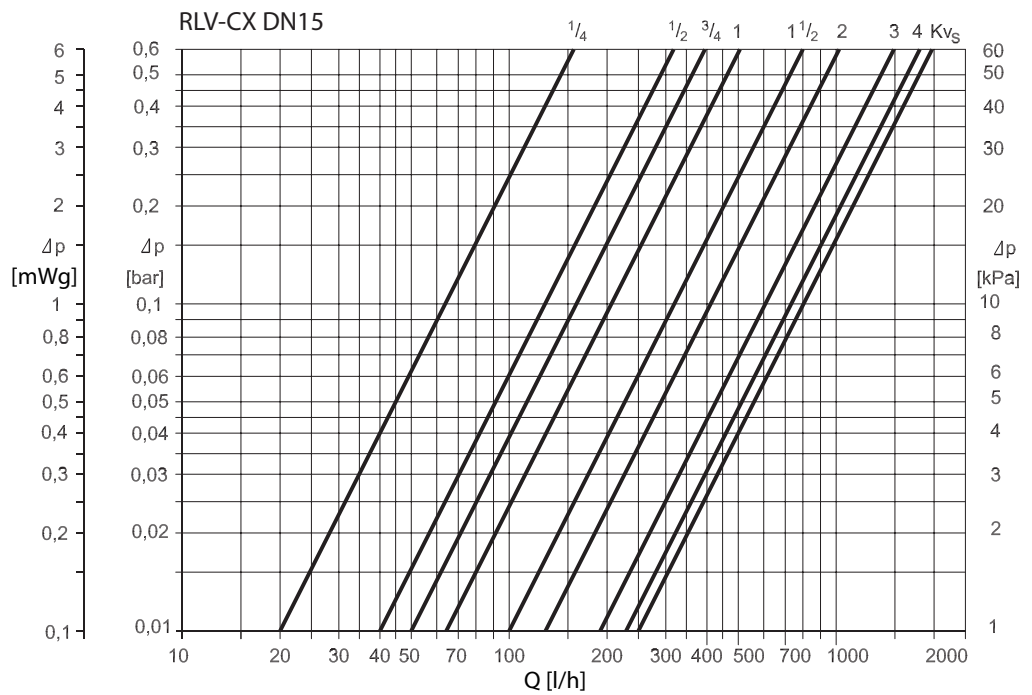
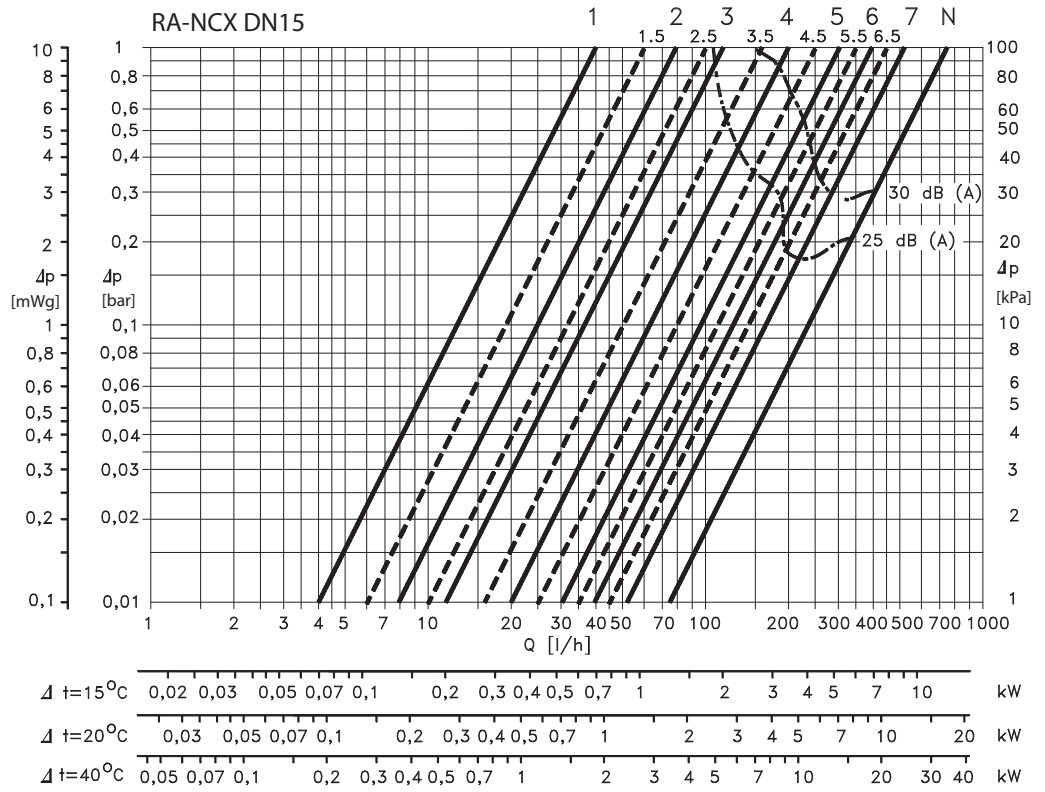
Setting of max. water flow:

- Close the valve by means of a 6 mm Allen key
- Regulate the water flow by opening the valve

The capacity diagrammes on page 3 show the water flow at 1/4 - 4 turns and for fully open valve ( $k_{vs}$ ).



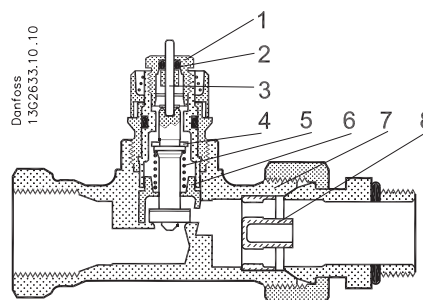
Capacity



Design

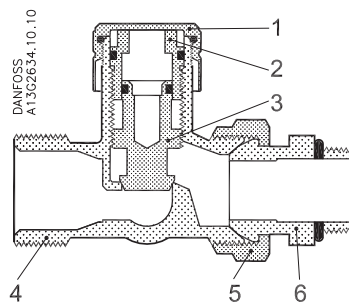
**RA-NCX**

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



**RLV-CX**

1. Cover
2. Guide sleeve
3. Shut-off cone
4. Valve body
5. Union nut
6. Tailpiece



**Materials in contact with water, RA-NCX**

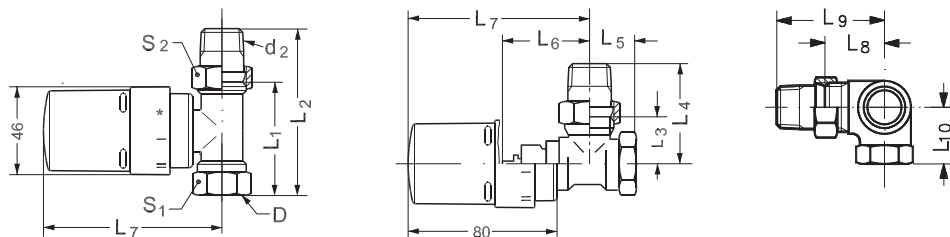
Valve body and other metal parts	Ms 58
O-ring	EPDM
kv-limiter	PPS
Valve cone	NBR
Pressure pin and valve spring	Chrome steel
Nozzle	PP

**Materials in contact with water, RLV-CX**

Valve body and other metal parts	Ms 58
O-ring	EPDM

Dimensions

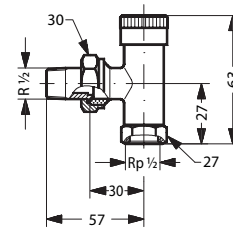
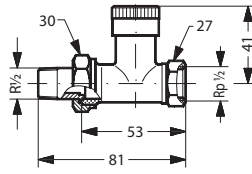
**RA-NCX**



Type	D	d <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub> *	L <sub>8</sub>	L <sub>9</sub>	L <sub>10</sub>	S <sub>1</sub>	S <sub>2</sub>
RA-NCX, series D	RP ½	R ½	67	95	30	58	26	47	90				27	30
RA-NCX, series F			55	82	26	53	23	47	90				27	30
RA-NCX, left/right angle											30	58	33	27

\* L<sub>7</sub> is stated with RAX sensor. If RA2000 is used, L<sub>7</sub> increases by 6 mm.

**RLV-CX**





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