

## Datasheet

# Chrome plated radiator valves type RA-NCX Chrome plated 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 tail-piece 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		Pre-setting										Code no.	
					$k_{v,max.}^{1)}$ (m <sup>3</sup> /h at $\Delta p = 1$ bar)											$k_{vs}^{2)}$
					Inlet	Outlet	1	2	3	4	5	6	7	N		
Angle	DN 15	D	R <sub>p</sub> ½	R ½	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	013G4237		
Straight		D												013G4238		
Angle right														013G4239		
Angle left														013G4240		
Angle		F												013G4247		
Straight		F												013G4248		

<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.

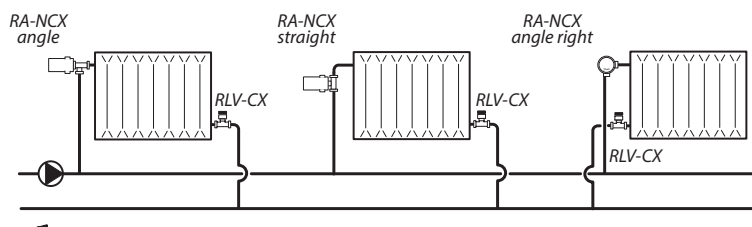
#### RLV-CX lockshield valve

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	R <sub>p</sub> 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

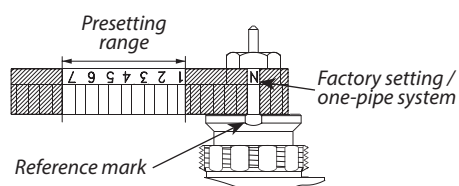
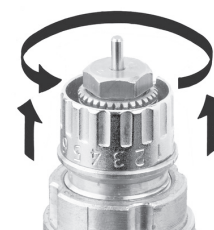
**Accessories**

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:

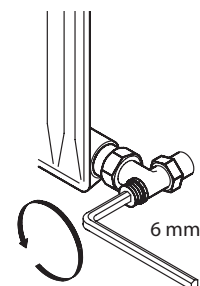
- Find the reference mark
- Lift and turn the setting ring until the desired presetting aligns with the reference mark.


**RLV-CX**

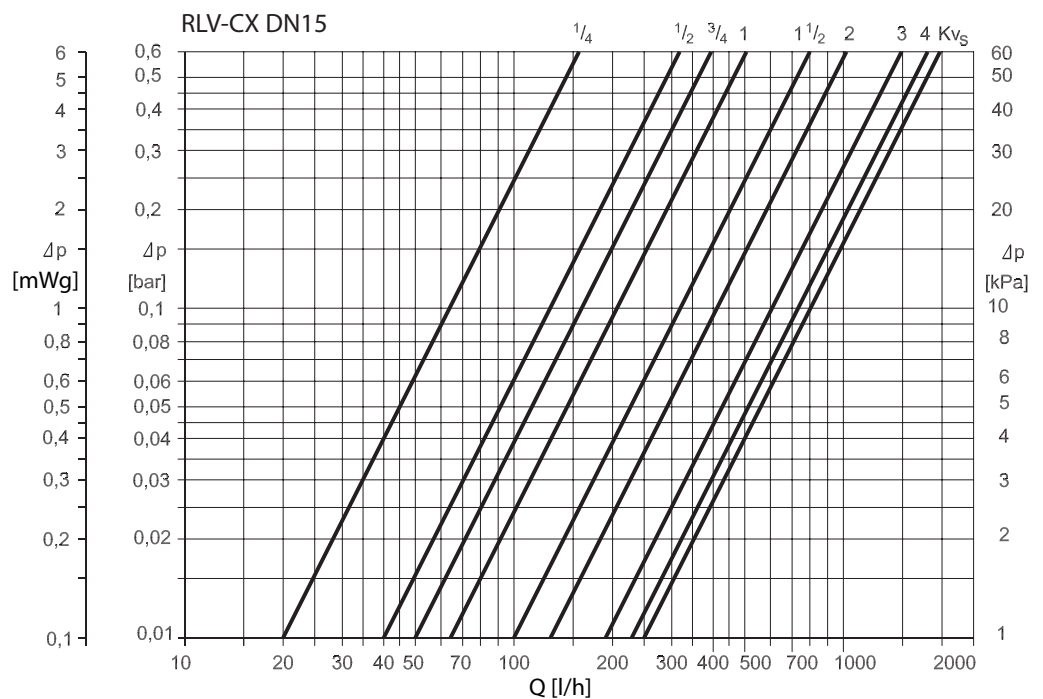
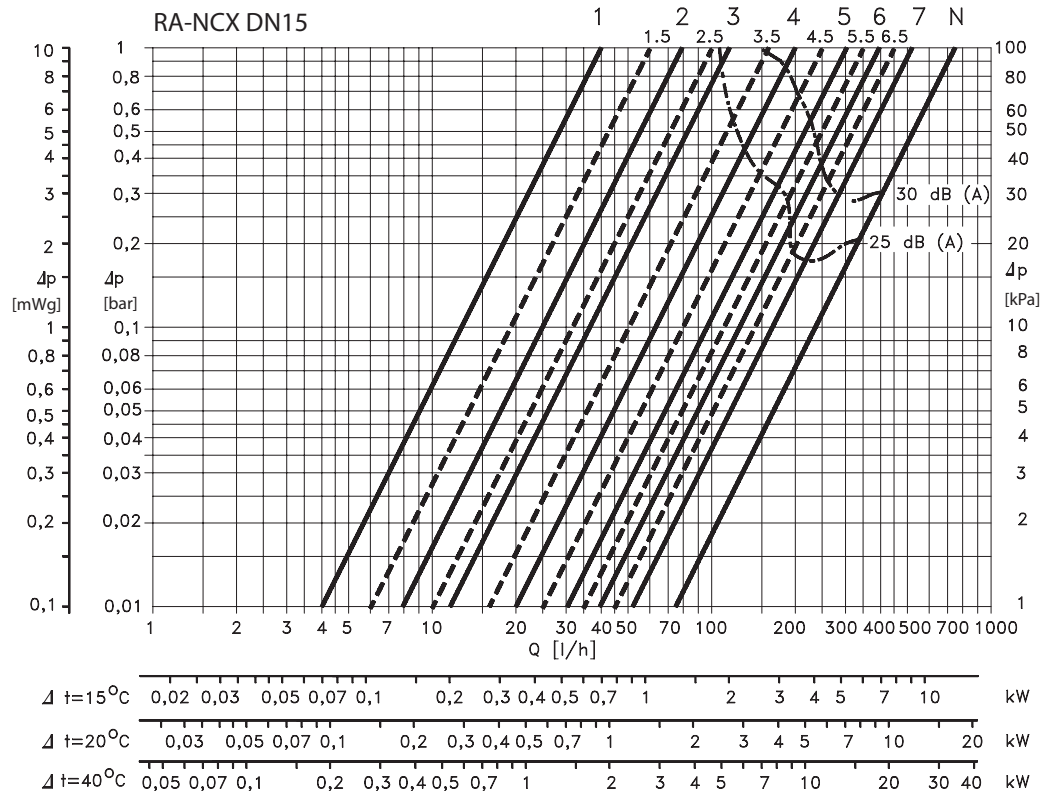
Setting of max. water flow:

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

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



Capacity



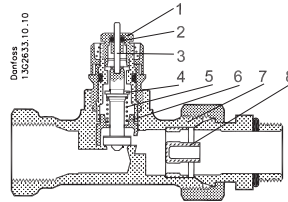
# Datasheet

# Chrome plated radiator valves and lockshield valves

## Design

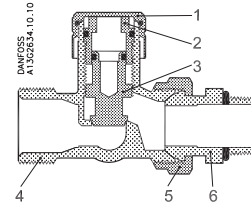
### RA-NCX

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

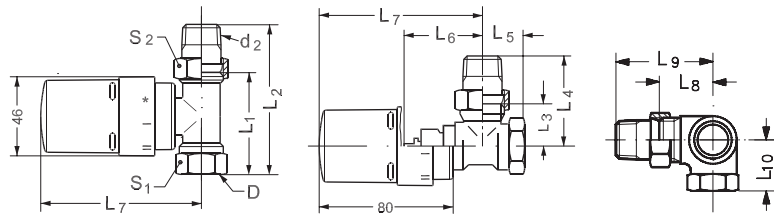
Valve body and other metal parts	Ms 58
O-ring	EPDM
$k_v$ -limiter	PPS
Valve cone	NBR
Pressure pin and valve spring	Chrome steel
Nozzle	PP

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

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

## Dimensions

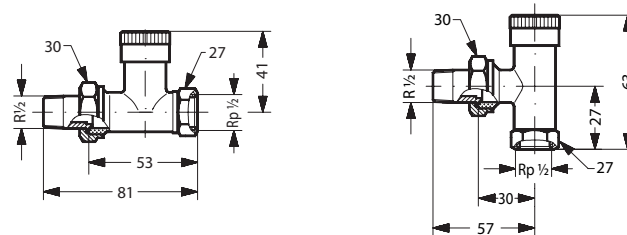
### RA-NCX



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	R <sub>p</sub> 1/2	R 1/2	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



## Danfoss A/S

Heating Segment • heating.danfoss.com • +45 7488 2222 • E-Mail: heating@danfoss.com

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