

Data Sheet

Check and stop valves
SCA-X and **CHV-X**

Designed to open at very low differential pressures



SCA-X are check valves with a built-in stop valve function. CHV-X are check valves only. SCA-X/ CHV-X are available in angleway and straightway versions. The valves are designed to open at very low differential pressures, allow favourable flow conditions and are easy to disassemble for inspection and service.

The SCA-X is equipped with vented cap and has internal backseating enabling the spindle seal to be replaced whilst the valve still under pressure. Laser cut V-ports provide excellent opening characteristics (SCA-X/CHV-X 50-125).

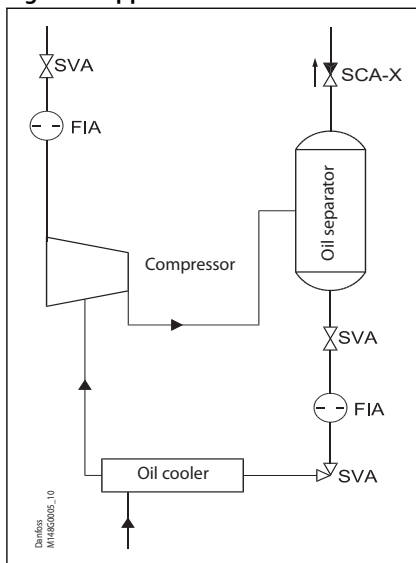
The valve cone has a built-in flexibility to ensure a precise and tight closing towards the valve seat. A well balanced dampening effect between the piston and the cylinder gives an optimal protection during low loads and against pulsations.

Features

- Modular Concept:
 - Each valve housing is available with DIN and ANSI butt weld connection and in several different sizes.
 - Possible to convert SCA-X or CHV-X to any other product in the Flexline™ SVL family (regulating valve, shut-off valve or strainer) just by replacing the complete top part.
- Fast and easy valve overhaul service. It is easy to replace the top part and no welding is needed.
- Designed to open at a very low differential pressure of 0.04 bar (0.58 psig).
- Designed with a built-in damping chamber preventing valve flutter in case of low refrigerant velocity and/or low density.
- Each valve is clearly marked with type, size and performance range. At replacement of the O-ring for special application, an additional ID ring is fixed to the valve.
- Easy to disassemble for inspection and service.
- Internal backseating enables replacement of the spindle seal whilst the valve is active, i.e. under pressure.
- Optimal flow characteristics ensuring quick opening to the fully open position.
- Protection against pulsation by built-in damping facility.
- Housing and bonnet material is low temperature steel according to requirements of the Pressure Equipment Directive and other international classification authorities.
- Equipped with 42 CrMo5 bolts to withstand high pressure.
- Classification: DNV, CRN, BV, EAC etc. To get an updated list of certification on the products please contact your local Danfoss Sales Company.
- Service kits with replacement O-rings for R717 Heat Pump and R1270 Propylene include separate ID-ring for ID of application.

Application

Figure 1: Application



The above shows the check & stop valve SCA-X in the discharge line of a screw compressor unit. The SCA-X valve in the discharge line prevents “back condensation” in the oil separator as well as pressure equalising through the compressor.

Compared to an ordinary stop and check valve arrangement the combined stop/check valve solution, as shown, is easier to install and has lower flow resistance. **Installation of the SCA-X/CHV-X in the economizer line is not recommended.**

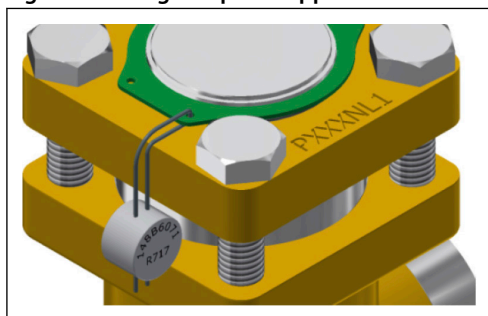
For horizontal installation of the function module, please contact Danfoss.

ID ring for special application

After converting a SCA or CHV valve for Heat Pump/Propylene applications (replacing O-ring) the color marked ID tag included in the service kit must be fixed to the valve as shown in figure to the right.

The ID tag indicates the special application and identifies the installed O-ring.

Figure 2: ID ring for special application



Media

Refrigerants

Applicable to HCFC, HFC, R717 (Ammonia), R744 (CO²) and flammable refrigerants. For further information please see the installation guide for SCA-X/CHV-X.

New refrigerants

Danfoss products are continually evaluated for use with new refrigerants depending on market requirements.

When a refrigerant is approved for use by Danfoss, it is added to the relevant portfolio, and the R number of the refrigerant (e.g. R513A) will be added to the technical data of the code number. Therefore, products for specific refrigerants are best checked at store.danfoss.com/en/, or by contacting your local Danfoss representative.

Product specification

Pressure and temperature data

Table 1: Pressure and temperature data

Features	Description
Temperature range	-60 °C/+150 °C (-76 °F/+302 °F).
Max. working pressure	65 bar (943 psig)
With O-ring replaced (Service kit)	Heat pump configuration: R717 - 65 bar(g) (943 psig) @ +100 °C to +150 °C (+212 °F to +302 °F) continuous.
Propylene configuration:	R1270 - 65 bar(g) (943 psig) @ -60 °C to 150 °C (-76 °F to 302 °F)

Connections

Figure 3: DIN

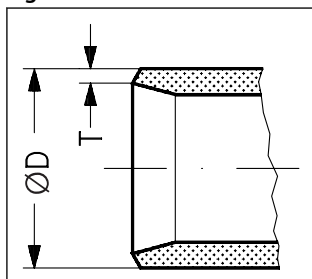


Table 2: Butt-weld DIN (EN 10220)

Size		ØD	T	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
mm	in.	mm	mm	in.	in.	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
6	¼	13.5	2.3	0.531	0.091	2.9	2.0	3.4	2.4
10	¾	17.2	2.3	0.677	0.091	4.5	3.2	5.2	3.6
15	½	21.3	2.3	0.839	0.091	7.0	4.9	8.1	5.7
20	¾	26.9	2.3	1.059	0.091	14.6	10.2	16.9	11.8
25	1	33.7	2.6	1.327	0.103	24.8	17.4	28.8	20.2
32	1¼	42.4	2.6	1.669	0.102	42.6	29.8	49.4	34.6
40	1½	48.3	2.6	1.902	0.103	45.2	31.6	52.4	36.7
50	2	60.3	2.9	2.37	0.11	80	65	93	76
65	2½	76.1	2.9	3	0.11	120	97	140	113
80	3	88.9	3.2	3.50	0.13	182	152	211	176
100	4	114.3	3.6	4.50	0.14	313	278	363	323
125	5	139.7	4.0	5.50	0.16	514	470	596	545
150	6	168.3	4.5	6.63	0.18	785	597	911	693
200	8	219.1	6.3	8.63	0.25	1168	1024	1355	1188

Figure 4: ANSI

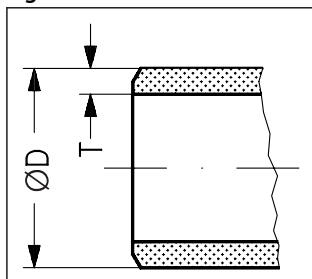


Table 3: Butt-weld ANSI (B 36.10 Schedule 80)

Size		ØD	T	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
mm	in.	mm	mm	in.	in.	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
6	¼	13.5	3.0	0.531	0.118	2.9	2.03	3.4	2.4
10	¾	17.2	3.2	0.677	0.126	4.5	3.15	5.2	3.6
15	½	21.3	3.7	0.839	0.146	7.0	4.9	8.1	5.7
20	¾	26.9	4.0	1.059	0.158	14.6	10.2	16.9	11.8

Check and stop valves, type SCA-X and CHV-X

Size		ØD	T	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
mm	in.	mm	mm	in.	in.	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
25	1	33.7	4.6	1.327	0.181	24.8	17.4	28.8	20.2
32	1¼	42.4	4.9	1.669	0.193	42.6	29.8	49.4	34.6
40	1½	48.3	5.1	1.902	0.201	45.2	31.6	52.4	36.7

Table 4: Butt-weld ANSI (B 36.10 Schedule 40)

Size		ØD	T	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
mm	in.	mm	mm	in.	in.	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
50	2	60.3	3.9	2.37	0.15	80	65	93	76
65	2½	73.0	5.2	2.87	0.20	120	97	140	113
80	3	88.9	5.5	3.50	0.22	182	152	211	176
100	4	114.3	6.0	4.50	0.24	313	278	363	323
125	5	141.3	6.6	5.56	0.26	514	470	596	545
150	6	168.3	7.1	6.63	0.28	785	597	911	693
200	8	219.1	8.2	8.63	0.32	1168	1024	1355	1188

Figure 5: SD (DIN)

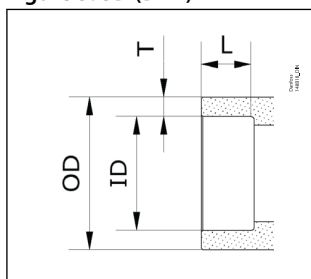


Table 5: Socket-Brazing DIN (EN 1254-5)

Size		ID	L	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
mm	in.	mm	mm	mm	mm	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
6	¼	6	7.7	12.7	3.35	2.9	2.0	3.4	2.4
10	¾	10	8	15.88	2.94	4.5	3.2	5.2	3.6
15	½	16	8	21.3	2.65	7.0	4.9	8.1	5.7
20	¾	22	11	26.9	2.45	14.6	10.2	16.9	11.8
25	1	28	11	33.7	2.85	24.8	17.4	28.8	20.2
32	1¼	35	15	42.4	3.7	42.6	29.8	49.4	34.6
40	1½	42	15	48.3	3.15	45.2	31.6	52.4	36.7
50	2	54	13.5	60.3	3.15	80	65	93	76
65	2½	64	13.5	73	4.5	120	97	140	113
80	3	76.1	15	88.9	6.4	182	152	211	176
100	4	108	17.5	118	5	313	278	363	323

Figure 6: SA (ASME)

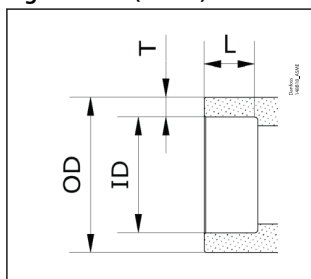


Table 6: Socket-Brazing ASME (ASME B16.50)

Size	ID	L	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
in.	mm	mm	mm	mm	m ³ /h	m ³ /h	US _{gal} /min	US _{gal} /min
¼	6.35	7.7	12.7	3.18	2.9	2.0	3.4	2.4
¾	9.53	8	15.88	3.18	4.5	3.2	5.2	3.6
¾	15.88	8	21.3	2.71	7.0	4.9	8.1	5.7

Check and stop valves, type SCA-X and CHV-X

Size	ID	L	ØD	T	k _v -angle	k _v -straight	C _v -angle	C _v -straight
in.	mm	mm	mm	mm	m ³ /h	m ³ /h	US gal/min	US gal/min
7/8	22.23	11	26.9	2.34	14.6	10.2	16.9	11.8
1 1/8	28.58	11	33.7	2.56	24.8	17.4	28.8	20.2
1 3/8	34.93	15	42.4	3.74	42.6	29.8	49.4	34.6
1 5/8	41.28	15	48.3	3.51	45.2	31.6	52.4	36.7
2 1/8	54	13.5	60.3	3.15	80	65	93	76
2 3/8	66.7	13.5	76.1	4.70	120	97	140	113
3 1/8	79.38	15	88.9	4.76	182	152	211	176
4 1/8	104.78	17.5	114.3	4.76	313	278	363	323

Design

Housing

The housing is made from special, cold resistant steel.

Valve cone

Valve cone with built in metallic stop - prevents damage to teflon ring in case of overtightening. Teflon ring made of reinforced teflon

Damping chamber

The chamber is filled with refrigerants (gas or liquid), which provides a damping effect when the valve opens and closes.

Spindle (SCA-X)

Made of polished stainless steel, which is ideal for O-ring sealing.

Packing Gland (SCA-X)

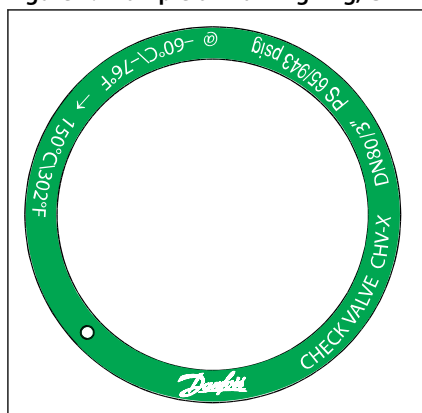
The "full temperature range" packing gland is the standard for the entire SVL platform. This ensures perfect tightness throughout the whole temperature range : -60/+150 °C (-76/+302 °F).

Installation

The valve must be mounted vertically with the cone downwards. The valve is designed to resist very high internal pressure. However, the piping system in general should be designed to avoid liquid traps and reduce the risk of hydraulic pressure caused by thermal expansion. For further information refer to installation guide for SCA-X/CHV-X.

If cold refrigeration oil having low viscosity enters and settles in the damping chamber, problems with the check valve may arise. Consequently, it may be necessary to modify the valve for more viscous liquids by enlarging the hole to the damping chamber.

Figure 7: Example of marking ring, CHV-X



Computation and selection

When dimensioning SCA-X/CHV-X, it is important to select a valve that is best suited to all operating conditions. Therefore, it is necessary to consider both the nominal and part load working conditions.

Check and stop valves, type SCA-X and CHV-X

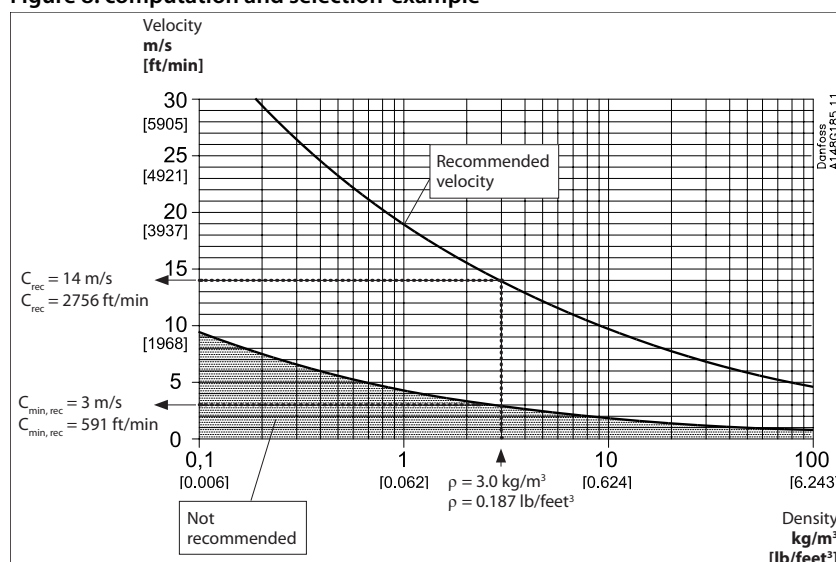
The SCA-X/CHV-X valve can be calculated in two ways:

- Using the tables below.
- Using Coolselector™

Table 7: Example

SI-Units	US-Units
Assumed working conditions: Maximum flow $V = 1000 \text{ m}^3/\text{h}$ Density $\rho = 3.0 \text{ kg/m}^3$ Minimum part load = 33%	Assumed working conditions: Maximum flow $V = 1160 \text{ gpm}$ Density $\rho = 0.187 \text{ lb/ft}^3$ Minimum part load = 33%
Used expressions: Recommended velocity - C_{rec} [m/s] Minimum recommended velocity - $C_{\text{min, rec}}$ [m/s] Maximum velocity - C_{max} [m/s] Part load velocity - C_{part} [m/s]	Used expressions: Recommended velocity - C_{rec} [ft/min] Minimum recommended velocity - $C_{\text{min, rec}}$ [ft/min] Maximum velocity - C_{max} [ft/min] Part load velocity - C_{part} [ft/min]
We know the density $\rho \approx 3.0 \text{ kg/m}^3$, consequently C_{rec} as well as $C_{\text{min, rec}}$ can be found in the figure below (standard valve).	We know the density $\rho \approx 0.187 \text{ lb/ft}^3$, consequently C_{rec} as well as $C_{\text{min, rec}}$ can be found in the figure (standard valve).
$C_{\text{rec}} \approx 14 \text{ m/s}$ $C_{\text{min, rec}} \approx 3 \text{ m/s}$	$C_{\text{rec}} \approx 2756 \text{ ft/min}$ $C_{\text{min, rec}} \approx 591 \text{ ft/min}$

Figure 8: computation and selection-example



Knowing that $V = 1000 \text{ m}^3/\text{h}$ (1160 gpm) fig. 2 gives the following choices

- For SCA-X/CHV-X in size DN 100 the maximum velocity $C_{\text{max}} \approx 31 \text{ m/s}$ (6100 ft/min)
- For SCA-X/CHV-X in size DN 125 the maximum velocity $C_{\text{max}} \approx 20 \text{ m/s}$ (3900 ft/min)

In conclusion SCA-X in size DN 125 is selected because $C_{\text{max}} \approx 20 \text{ m/s}$ (3900 ft/min) comes nearest to the recommended velocity $C_{\text{rec}} \approx 14 \text{ m/s}$ (2756 ft/min) and at the same time part load conditions fulfil the requirements, as described:

- We know that $C_{\text{max}} \approx 20 \text{ m/s}$ (3900 ft/min) and that minimum part load is 33%. It follows that $C_{\text{part}} \approx 6.5 \text{ m/s}$ (1290 ft/min). Thus, $C_{\text{part}} (6.5 \text{ m/s}) > C_{\text{min, rec}} (3.0 \text{ m/s})$ and the selected SCA-X model DN125 is the perfect choice.
- If the valve in question (for instance under part load conditions) provides a velocity less than $C_{\text{min, rec}}$ the valve might start hammering and become noisy. As a result the valve may wear prematurely.

Check and stop valves, type SCA-X and CHV-X

Figure 9: DN 15 - 40

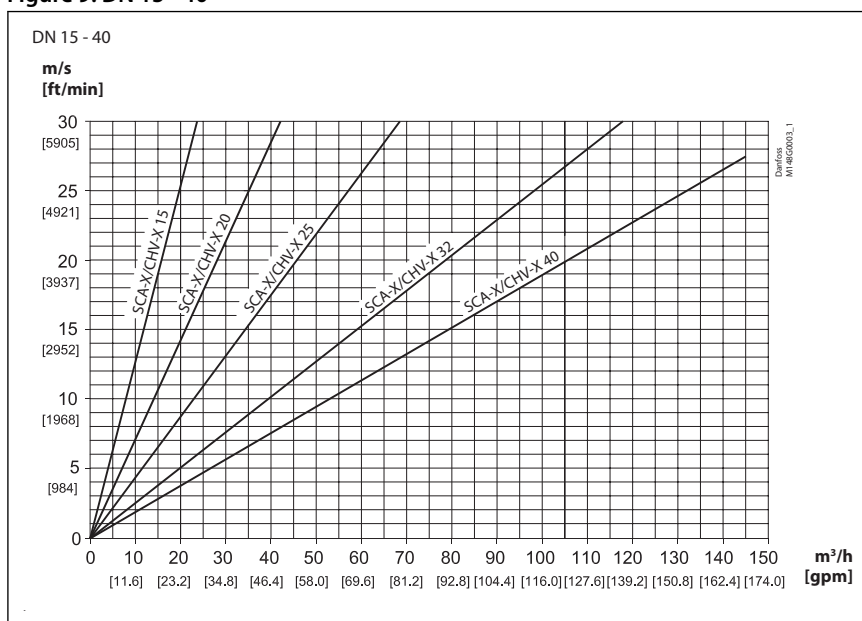
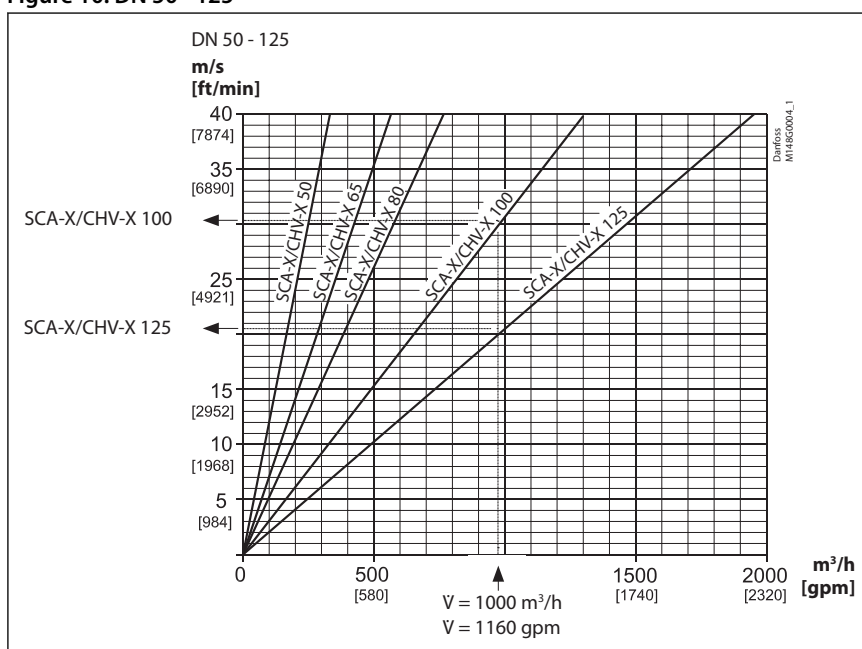


Figure 10: DN 50 - 125



Material specification

Table 8: Material specification

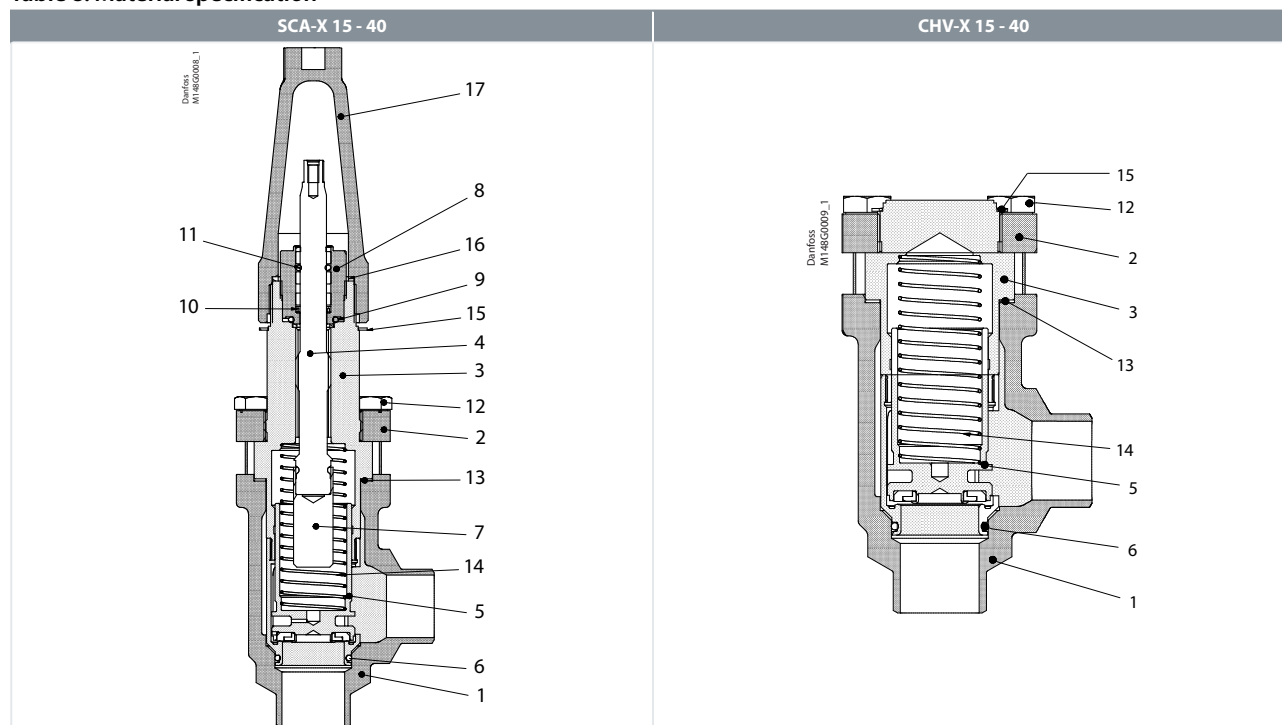


Table 9: Material specification

No.	Part	Material	DIN/EN	ISO	ASTM
1	Housing	Steel	G20Mn5QT, 10213-3 P285QH+QT, 10222-4		LCC, A352 LF2, A350
2	Bonnet, Flange	Steel	P275NL1 EN10028-3		LF2, A350
3	Bonnet, Insert	Steel	11SMn30 10087	Type 2 R 683/9	AISI 1213
4	Spindle	Stainless steel	X8CrNiS18-9, EN 10088-3	Type 17 683/13	AISI 303
5	Cone	Steel Teflon (PTFE)			
6	O-ring	Chloroprene (Neoprene)			
7	Spindle extension	Steel			
8	Packing gland O-rings	Stainless steel Chloroprene (Neoprene)	X8CrNiS18-9 10088	Type 17 683/13	AISI 303
9	Packing washer	Aluminium			
10	Spring loaded seal	Teflon (PTFE)			
11	O-ring	Chloroprene (Neoprene) ⁽¹⁾			
12	Bolts	High temperature steel	42CrMo5 10269		A193
13	Gasket	Fiber, non-asbestos			
14	Spring	Steel			
15	Identification ring	Stainless steel			
16	Seal cap gasket	Nylon			
17	Spindle seal cap	Aluminium			

⁽¹⁾ To be replaced in R717 Heat Pump and R1270 Propylene applications.

Check and stop valves, type SCA-X and CHV-X

Table 10: Material specification

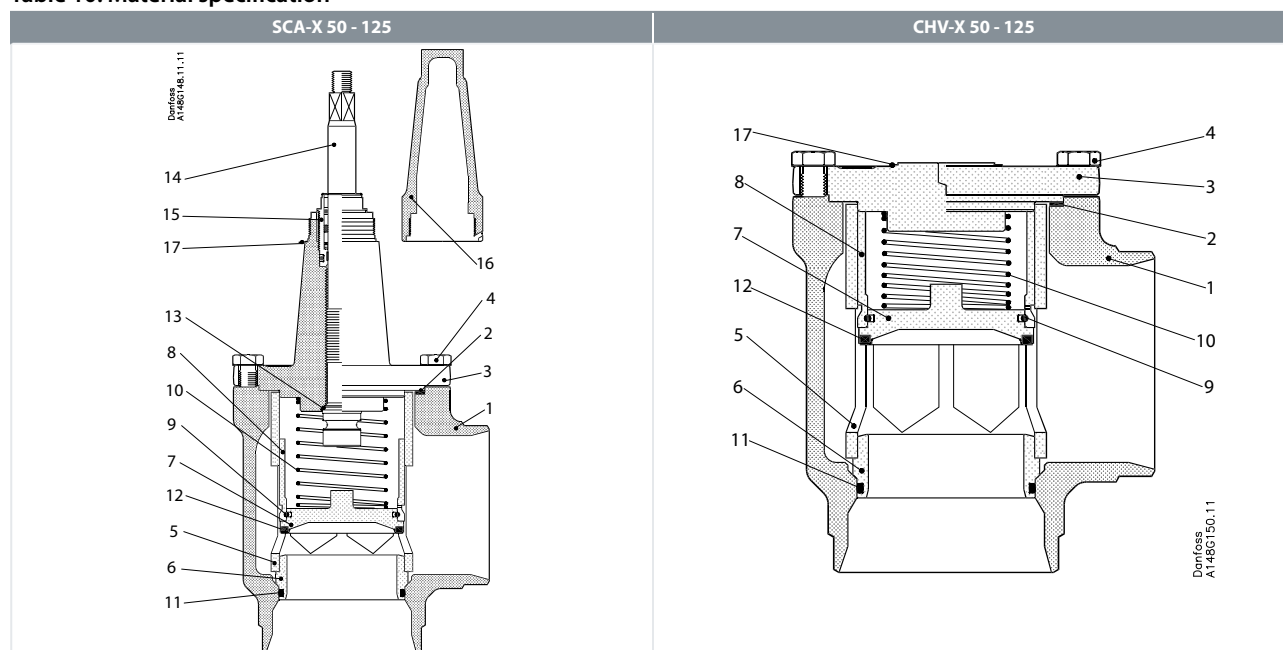


Table 11: Material specification

No.	Part	Material	DIN/EN	ISO	ASTM
1	Housing DN 50-65	Steel	G20Mn5QT, 10213-3		LCC, A352
			P285QH+QT, 10222-4		LF2, A350
	Housing DN 80-125	Steel	G20Mn5 QT SEW 685		LCC, A352
2	Gasket	Fiber, Non-asbestos			
3	SCA-X: Valve bonnet CHV-X: End cover	Steel	P285 QH EN 10222-4		LF2, A350
			P275NL1 or 2 EN10028-3		A, A662
4	Bolts	Stainless steel	A2-70	A2-70	A-276
5	Tube	Steel			
6	Seat	Steel			
7	Valve plate	Steel			
8	Guide sleeve	Steel			
9	Spring ring	Steel			
10	Spring	Steel			
11	O-ring	Chloroprene (Neoprene) ⁽²⁾			
12	Teflon ring	Teflon (PTFE)			
13	Soft back seal	Teflon (PTFE)			
14	Spindle DN 50-65	Stainless steel	X8CrNiS18-9 17440	Type 17 R 683/13	AISI 303
	Spindle DN 80-125	Stainless steel	X5CrNi1810 17440	Type 11 683/13	AISI 304 A-276
15	Packing gland	Stainless steel	X8CrNiS18-9, EN 10088-3,	Type 17 R 683/13	AISI 303
16	Spindle seal cap and gasket	Aluminium			
17	Marking label	Stainless steel			

⁽²⁾ To be replaced in R717 Heat Pump and R1270 Propylene applications.

Dimensions and weights

Table 12: SCA-X/CHV-X 15 - 40 (½- 1½ in.)

SCA-X 15 - 40	CHV-X 15 - 40

Table 13: SCA-X 15 - 40

Valve size		C	G	ØD	F _{min}	H	Weight
SCA-X 15 (½ in.)	mm	212	45	38	60	60	1.6 kg
	in.	8.35	1.77	1.5	2.36	2.36	3.53 lb
SCA-X 20 (¾ in.)	mm	212	45	38	60	60	1.6 kg
	in.	8.35	1.77	1.5	2.36	2.36	3.53 lb
SCA-X 25 (1 in.)	mm	295	55	50	85	70	3.2 kg
	in.	11.61	2.17	1.97	3.35	2.76	7.05 lb
SCA-X 32 (1¼ in.)	mm	295	55	50	85	70	3.2 kg
	in.	11.61	2.17	1.97	3.35	2.76	7.05 lb
SCA-X 40 (1½ in.)	mm	295	55	50	85	70	3.2 kg
	in.	11.61	2.17	1.97	3.35	2.76	7.05 lb

Table 14: CHV-X 15 - 40

Valve size		C	G	F _{min}	H	Weight
CHV-X 15 (½ in.)	mm	103	45	60	60	1.2 kg
	in.	4.06	1.77	2.36	2.36	2.65 lb
CHV-X 20 (¾ in.)	mm	103	45	60	60	1.2 kg
	in.	4.06	1.77	2.36	2.36	2.65 lb
CHV-X 25 (1 in.)	mm	143	55	85	70	2.3 kg
	in.	5.63	2.17	3.35	2.76	5.07 lb
CHV-X 32 (1¼ in.)	mm	143	55	85	70	2.3 kg
	in.	5.63	2.17	3.35	2.76	5.07 lb
CHV-X 40 (1½ in.)	mm	143	55	85	70	2.3 kg
	in.	5.63	2.17	3.35	2.76	5.07 lb

Specified weights in tables 8-9 are approximate values only.

Check and stop valves, type SCA-X and CHV-X

Table 15: SCA-X/CHV-X 50 - 65 (2 - 2½ in.)

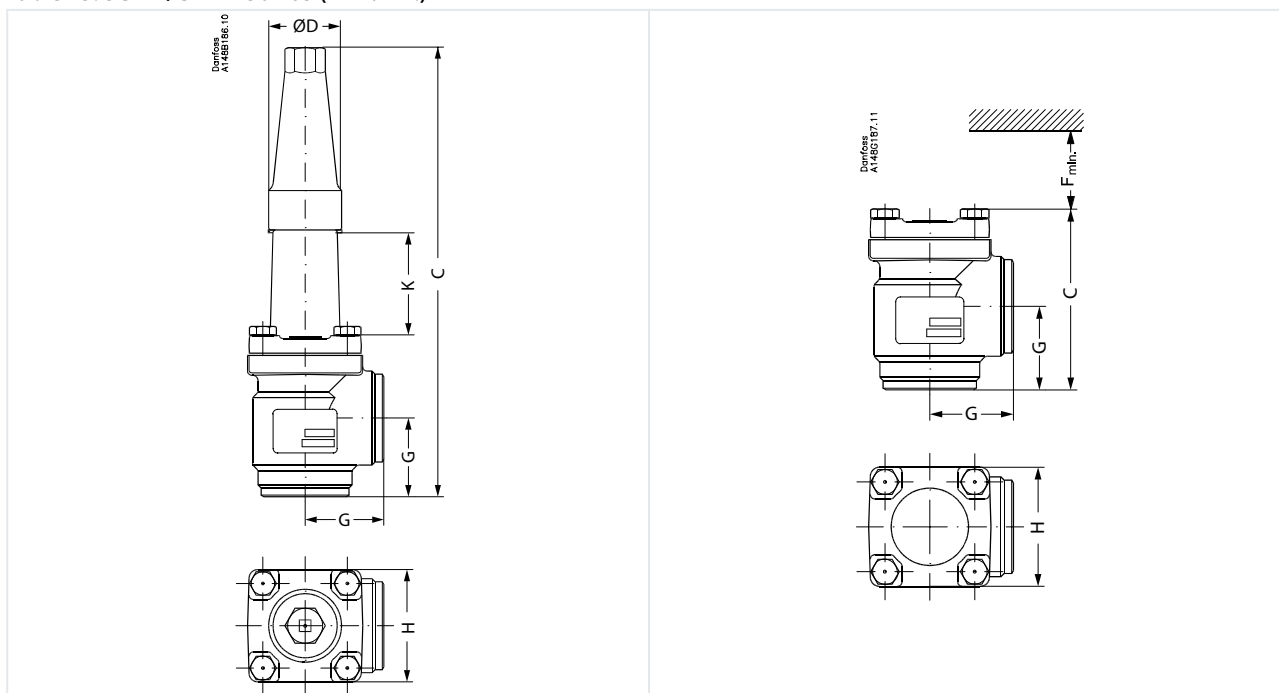


Table 16: SCA-X

Valve size		K		C	G		ØD	H	Weight
SCA-X 50SCA-X (2)	mm	70		315	60		50	77	3.8 kg
	in.	2.76		12.4	2.36		1.97	3.03	8.40 lb
SCA-X 65SCA-X (2½)	mm	70		335	70		50	90	5.5 kg
	in.	2.76	12.20	13.19	2.76	3.94	1.97	3.54	12.16 lb

Table 17: CHV-X

Valve size		C	G	F _{min.}	H	Weight
SCA-X 50	mm	132	60	92	77	3.2 kg
SCA-X (2)	in.	5.2	2.36	3.62	3.03	7.10 lb
SCA-X 65	mm	152	70	107	90	4.5 kg
SCA-X (2½)	in.	5.98	2.76	4.21	3.54	9.95 lb

Specified weights in tables 11-12 are approximate values only.

Check and stop valves, type SCA-X and CHV-X

Table 18: SCA-X/CHV-X 80 - 125 (3 - 5 in.)

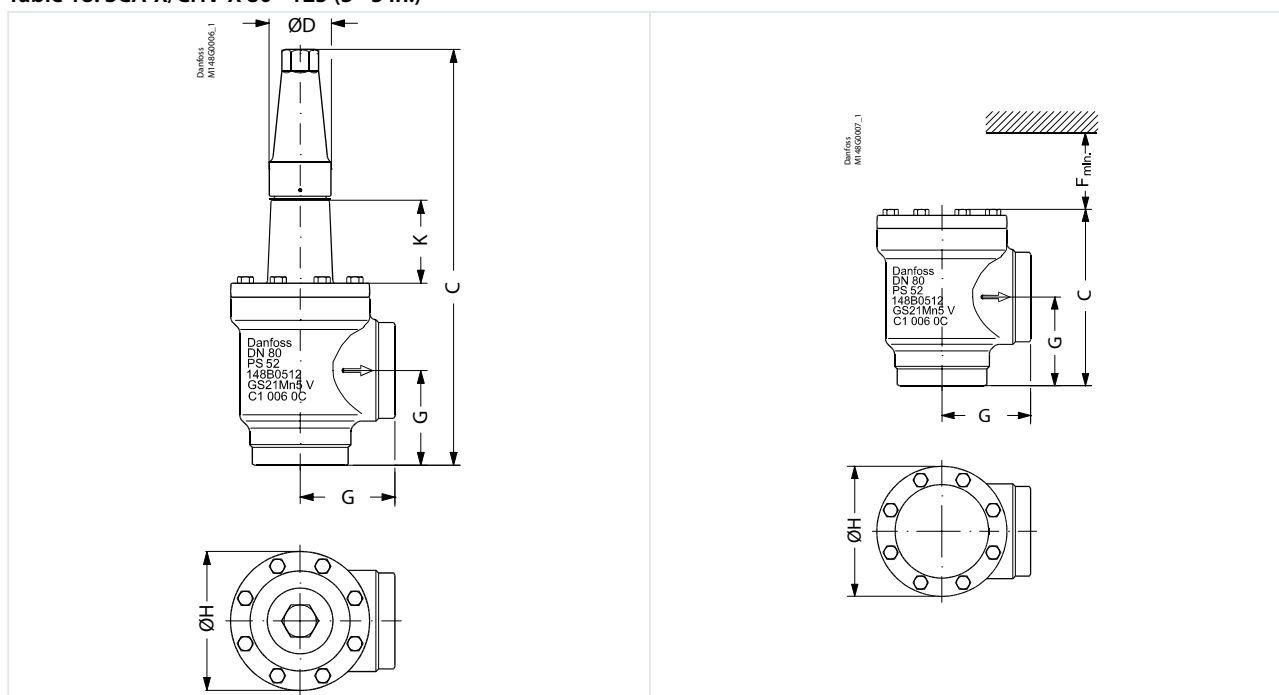


Table 19: SCA-X

Valve size		K	C	G	ØD	ØH	Weight
SCA-X 80	mm	76	388	90	58	129	9.7 kg
SCA-X (3)	in.	3	15.28	3.54	2.28	5.08	21.4 lb
SCA-X 100	mm	90	437	106	58	156	15.3 kg
SCA-X (4)	in.	3.54	17.2	4.17	2.28	6.14	33.7 lb
SCA-X 125	mm	90	533	128	74	193	28.1 kg
SCA-X (5)	in.	3.54	20.98	5.04	2.91	7.6	61.9 lb

Table 20: CHV-X

Valve size		C	G	F _{min.}	ØH	Weight
CHV-X 80	mm	189	90	133	129	8.7 kg
CHV-X (3)	in.	7.44	3.54	5.24	5.08	19.23 lb
CHV-X 100	mm	223	106	163	156	14.3 kg
CHV-X (4)	in.	8.78	4.17	6.43	6.14	31.60 lb
CHV-X 125	mm	268	128	190	193	25.6 kg
CHV-X (5)	in.	10.55	5.04	7.48	7.6	56.58 lb

Specified weights in tables 14-15 are approximate values only.

Ordering

Ordering SCA-X/CHV-X from the parts program

Table 21: Ordering SCA-X/CHV-X from the parts program

Size [DN]	Parts program									
	Housing								Top complete	
	ANG				STR					
	DIN	ANSI	SD	SA	DIN	ANSI	SD	SA	SCA-X	CHV-X
6	148B6689	148B6687	148B6722	148B6711	148B6693	148B6691	148B6743	148B6732		
10	148B6690	148B6688	148B6723	148B6712	148B6694	148B6692	148B6744	148B6733		
15	148B6622	148B6612	148B6724	148B6713	148B6642	148B6632	148B6745	148B6734	148B5769	148B5776
20	148B6623	148B6613	148B6725	148B6714	148B6643	148B6633	148B6746	148B6735	148B5769	148B5776
25	148B6624	148B6614	148B6726	148B6715	148B6644	148B6634	148B6747	148B6736	148B5770	148B5777
32	148B6625	148B6615	148B6727	148B6716	148B6645	148B6635	148B6748	148B6737	148B5770	148B5777
40	148B6626	148B6616	148B6728	148B6717	148B6646	148B6636	148B6749	148B6738	148B5770	148B5777
50	148B6627	148B6617	148B6718		148B6647	148B6637	148B6739		148B5771	148B5778
65	148B6628	148B6618	148B6729	148B6719	148B6648	148B6638	148B6750	148B6740	148B5772	148B5779
80	148B6629	148B6619	148B6730	148B6720	148B6649	148B6639	148B6751	148B6741	148B5773	148B5780
100	148B6630	148B6620	148B6731	148B6721	148B6650	148B6640	148B6752	148B6742	148B5774	148B5781
125	148B6631	148B6621			148B6651	148B6641			148B5775	148B5782
150										
200										

Table 22: Ordering SCA-X/CHV-X from the parts program

Size [DN]	Service Kit ⁽¹⁾		Complete valve							
	O-ring kit for		SVA (cap)				FIA			
	R717 Heat Pump	R1270 Propylene	ANG		STR		ANG		STR	
			DIN	ANSI	DIN	ANSI	DIN	ANSI	DIN	ANSI
6				148B5033		148B5053				
10	148B6084	148B6085		148B5034		148B5054				
15				148B5035		148B5055				
20	148B6070	148B6077		148B5036		148B5056				
25				148B5037		148B5057				
32	148B6071 ⁽²⁾	148B6078		148B5038		148B5058				
40	148B6096 ⁽³⁾	148B6097		148B5039		148B5059				
50	148B6072	148B6079		148B5040		148B5060				
65	148B6073	148B6080		148B5041		148B5061				
80	148B6074	148B6081		148B5042		148B5062				
100	148B6075	148B6082		148B5043		148B5063				
125	148B6076	148B6083		148B5044		148B5064				
150			148B6665	148B6667	148B6666	148B6668	148B6669	148B6670	148B6671	148B6672
200			148B6673	148B6675	148B6674	148B6676	148B6677	148B6679	148B6678	148B6680

⁽¹⁾ to be used for SCA-X, CHV-X and REG SA/SB (all sizes)

⁽²⁾ to be used for SCA-X, CHV-X, 25-40

⁽³⁾ to be used for REG SA/SB, 25-40

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

Some approvals may change over time. You can check the most current status at danfoss.com or contact your local Danfoss representative if you have any questions.

Pressure Equipment Directive (PED)

FIA strainers are approved in accordance with the European standard specified in the Pressure Equipment Directive and are CE marked. For further details / restrictions - see Installation Instruction.

Table 23: Pressure Equipment Directive (PED)

SCA-X/CHV-X valves			
Nominal bore	DN = < 25 mm (1 in.)	DN32-80 mm (1¼ - 3 in.)	DN100 - 125 mm (4 - 5 in.)
Classified for	Fluid group I		
Category	Article 3, paragraph 3	II	III

Online support

Danfoss offers a wide range of support along with our products, including digital product information, software, mobile apps, and expert guidance. See the possibilities below.

The Danfoss Product Store



The Danfoss Product Store is your one-stop shop for everything product related—no matter where you are in the world or what area of the cooling industry you work in. Get quick access to essential information like product specs, code numbers, technical documentation, certifications, accessories, and more.

Start browsing at store.danfoss.com.

Find technical documentation



Find the technical documentation you need to get your project up and running. Get direct access to our official collection of data sheets, certificates and declarations, manuals and guides, 3D models and drawings, case stories, brochures, and much more.

Start searching now at www.danfoss.com/en/service-and-support/documentation.

Danfoss Learning



Danfoss Learning is a free online learning platform. It features courses and materials specifically designed to help engineers, installers, service technicians, and wholesalers better understand the products, applications, industry topics, and trends that will help you do your job better.

Create your Danfoss Learning account for free at www.danfoss.com/en/service-and-support/learning.

Get local information and support



Local Danfoss websites are the main sources for help and information about our company and products. Find product availability, get the latest regional news, or connect with a nearby expert—all in your own language.

Find your local Danfoss website here: www.danfoss.com/en/choose-region.

Spare Parts



Get access to the Danfoss spare parts and service kit catalog right from your smartphone. The app contains a wide range of components for air conditioning and refrigeration applications, such as valves, strainers, pressure switches, and sensors.

Download the Spare Parts app for free at www.danfoss.com/en/service-and-support/downloads.

Coolselector®2 - find the best components for you HVAC/R system



Coolselector®2 makes it easy for engineers, consultants, and designers to find and order the best components for refrigeration and air conditioning systems. Run calculations based on your operating conditions and then choose the best setup for your system design.

Download Coolselector®2 for free at coolselector.danfoss.com.

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.