



**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.

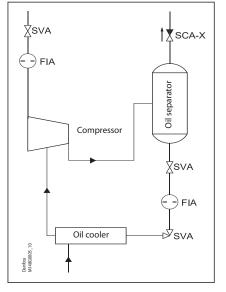
# Features

- 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 FlexlineTM 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.

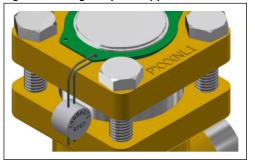


Figure 2: ID ring for special application

# Media

# **Refrigerants**

Applicable to HCFC, HFC, R717 (Ammonia), R744 (CO<sup>2</sup>) 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**

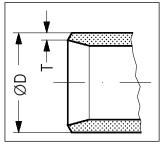
# Pressure and temperature data

#### 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**

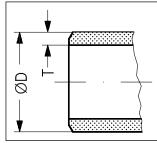
#### Figure 3: DIN



#### Table 2: Butt-weld DIN (EN 10220)

Si	ze	ØD	Т	ØD	Т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
mm	in.	mm	mm	in.	in.	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
6	1⁄4	13.5	2.3	0.531	0.091	2.9	2.0	3.4	2.4
10	3⁄8	17.2	2.3	0.677	0.091	4.5	3.2	5.2	3.6
15	1⁄2	21.3	2.3	0.839	0.091	7.0	4.9	8.1	5.7
20	3⁄4	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	11⁄2	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	21/2	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	Т	ØD	т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
mm	in.	mm	mm	in.	in.	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
6	1⁄4	13.5	3.0	0.531	0.118	2.9	2.03	3.4	2.4
10	3⁄8	17.2	3.2	0.677	0.126	4.5	3.15	5.2	3.6
15	1/2	21.3	3.7	0.839	0.146	7.0	4.9	8.1	5.7
20	3⁄4	26.9	4.0	1.059	0.158	14.6	10.2	16.9	11.8



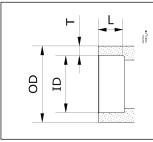
#### Check and stop valves, type SCA-X and CHV-X

Size		ØD	т	ØD	Т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
mm	in.	mm	mm	in.	in.	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
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	11/2	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)

Si	Size		Т	ØD	Т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
mm	in.	mm	mm	in.	in.	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
50	2	60.3	3.9	2.37	0.15	80	65	93	76
65	21/2	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

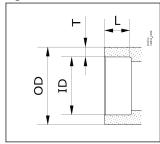
#### Figure 5: SD (DIN )



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

Si	ize	ID	L	ØD	Т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
mm	in.	mm	mm	mm	mm	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
6	1⁄4	6	7.7	12.7	3.35	2.9	2.0	3.4	2.4
10	3⁄8	10	8	15.88	2.94	4.5	3.2	5.2	3.6
15	1/2	16	8	21.3	2.65	7.0	4.9	8.1	5.7
20	3/4	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	11⁄4	35	15	42.4	3.7	42.6	29.8	49.4	34.6
40	11/2	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	21⁄2	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	т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
in.	mm	mm	mm	mm	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
1⁄4	6.35	7.7	12.7	3.18	2.9	2.0	3.4	2.4
3⁄8	9.53	8	15.88	3.18	4.5	3.2	5.2	3.6
5⁄8	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	Т	k <sub>v</sub> -angle	k <sub>v</sub> -straight	C <sub>v</sub> -angle	C <sub>v</sub> -straight
in.	mm	mm	mm	mm	m³/h	m³/h	US <sub>gal/min</sub>	US <sub>gal/min</sub>
7⁄8	22.23	11	26.9	2.34	14.6	10.2	16.9	11.8
11/8	28.58	11	33.7	2.56	24.8	17.4	28.8	20.2
13⁄8	34.93	15	42.4	3.74	42.6	29.8	49.4	34.6
15⁄8	41.28	15	48.3	3.51	45.2	31.6	52.4	36.7
21⁄8	54	13.5	60.3	3.15	80	65	93	76
25⁄8	66.7	13.5	76.1	4.70	120	97	140	113
31⁄8	79.38	15	88.9	4.76	182	152	211	176
41⁄8	104.78	17.5	114.3	4.76	313	278	363	323

# <u>Design</u>

# 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)

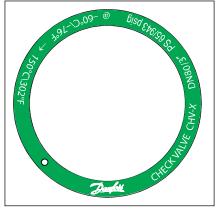
The "full temperature range" packing gland is the standard for the entire SVL platform. This ensures perfect tightness throughout the whole temperature range : -60/+150 °C (-76/+302 °F).

# **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.



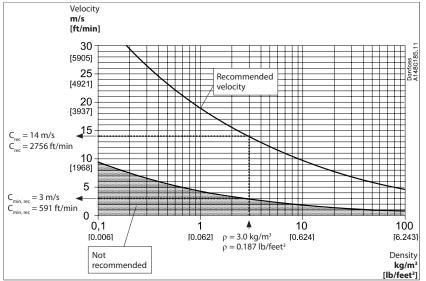
The SCA-X/CHV-X valve can be calculated in two ways:

- Using the tables below.
- Using Coolselector<sup>™</sup>

#### Table 7: Example

SI-Units	US-Units
Assumed working conditions: Maximum flow V = 1000 m3/h Density ρ = 3.0 kg/m3 Minimum part load = 33%	Assumed working conditions: Maximum flow V = 1160 gpm Density $\rho$ = 0.187 lb/feet3 Minimum part load = 33%
Used expressions: Recommended velocity - C <sub>rec</sub> [m/s] Minimum recommended velocity - C <sub>min, rec</sub> [m/s] Maximum velocity - C <sub>max</sub> [m/s] Part load velocity - C <sub>part</sub> [m/s]	Used expressions: Recommended velocity - C <sub>rec</sub> [ft/min] Minimum recommended velocity - C <sub>min, rec</sub> [ft/min] Maximum velocity - C <sub>max</sub> [ft/min] Part load velocity - C <sub>part</sub> [ft/min]
We know the density $\rho\approx 3.0$ kg/m3, consequently $C_{rec}$ as well as $C_{min,rec}$ can be found in the figure below (standard valve).	We know the density $\rho\approx 0.187$ lb/feet3, consequently $C_{rec}$ as well as $C_{min,rec}$ can be found in the figure (standard valve).
$C_{rec} \approx 14 \text{ m/s}$ $C_{min, rec} \approx 3 \text{ m/s}$	$C_{rec} \approx 2756 \text{ ft/min } C_{min, rec} \approx 591 \text{ ft/min}$

#### Figure 8: computation and selection-example



Knowing that V = 1000 m<sup>3</sup>/h (1160 gpm) fig. 2 gives the following choices

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

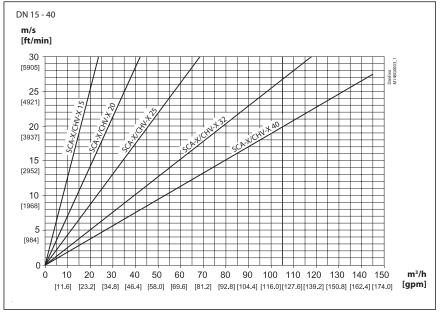
+ For SCA-X/CHV-X in size DN 125 the maximum velocity  $\rm C_{max}\,{\approx}\,20$  m/s (3900 ft/min)

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

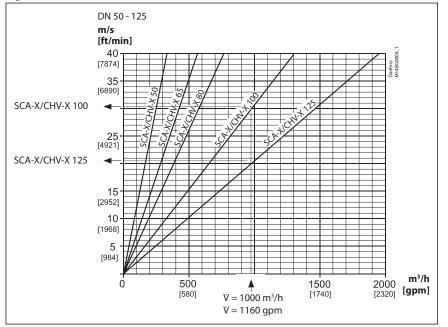
- We know that  $C_{max} \approx 20 \text{ m/s}$  (3900 ft/min) and that minimum part load is 33%. It follows that  $C_{part} \approx 6.5 \text{ m/s}$  (1290 ft/min). Thus,  $C_{part}$  (6.5 m/s) >  $C_{min, rec}$  (3.0 m/s) and the selected SCA-X model DN125 is the perfect choice.
- If the valve in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



#### Figure 9: DN 15 - 40



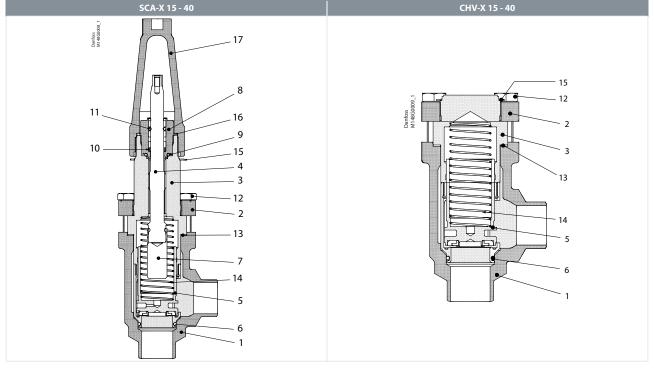
#### Figure 10: DN 50 - 125





# **Material specification**

#### Table 8: Material specification



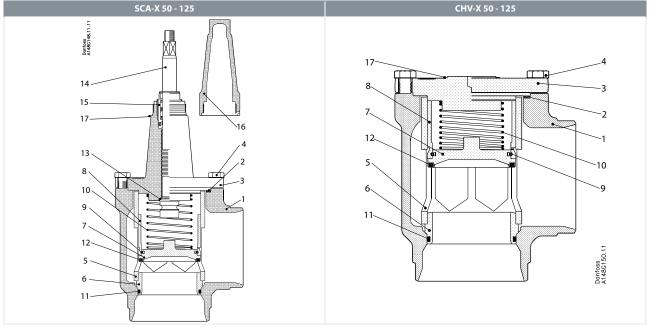
#### Table 9: Material specification

	terial specification				
No.	Part	Material	DIN/EN	ISO	ASTM
1	Housing	Steel	G20Mn5QT, 10213-3		LCC, A352
•	nousing	Steel	P285QH+QT, 10222-4		LF2, A350
2	Bonnet, Flange	Steel	P275NL1 EN10028-3		LF2, A350
3	Bonnet, Insert	Steel	11SMn30	Type 2 R 683/9	AISI 1213
5	bonnet, insert	Steel	10087	Type 2 1( 005/ 9	
4	Spindle	Stainless steel	X8CrNiS18-9, EN 10088-3	Type 17 683/13	AISI 303
5	Cone	Steel			
,	conc	Teflon (PTFE)			
6	O-ring	Chloroprene (Neoprene)			
7	Spindle extension	Steel			
8	Packing gland O-rings	Stainless steel Chloroprene (Neoprene)	X8CrNiS18-9 10088	Туре 17 683/13	AISI 303
9	Packing washer	Aluminium			
10	Spring loaded seal	Teflon (PTFE)			
11	O-ring	Chloroprene (Neoprene) <sup>(1)</sup>			
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.



#### Table 10: Material specification



#### Table 11: Material specification

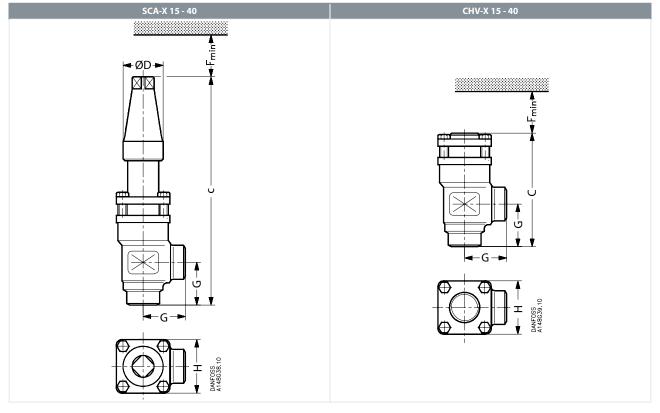
No.	Part	Material	DIN/EN	ISO	ASTM
	Housing DN 50-65	Steel	G20Mn5QT, 10213-3		LCC, A352
1	Housing DN 50-05	Steel	P285QH+QT, 10222-4		LF2, A350
	Housing DN 80-125	Steel	G20Mn5 QT SEW 685		LCC, A352
2	Gasket	Fiber, Non-asbestos			
3	SCA-X: Valve bonnet	Steel	P285 QH EN 10222-4		LF2, A350
3	CHV-X: End cover	Steel	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) <sup>(2)</sup>			
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
14	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			

<sup>(2)</sup> To be replaced in R717 Heat Pump and R1270 Propylene applications.



# **Dimensions and weights**

Table 12: SCA-X/CHV-X 15 - 40 (1/2- 11/2 in.)



#### Table 13: SCA-X 15 - 40

Valve	Valve size		G	ØD	F <sub>min</sub>	н	Weight
SCA-X 15 (½ in.)	mm	212	45	38	60	60	1.6 kg
3CA-X 13 (72 III.)	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
3CA=X 20 (74 III.)	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
3CA-X 23 (1 III.)	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
SCA-X SZ (1 /4 III.)	in.	11.61	2.17	1.97	3.35	2.76	7.05 lb
CCA X 40 (11) )	mm	295	55	50	85	70	3.2 kg
SCA-X 40 (1½ in.)	in.	11.61	2.17	1.97	3.35	2.76	7.05 lb

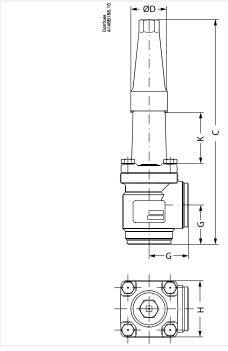
#### Table 14: CHV-X 15 - 40

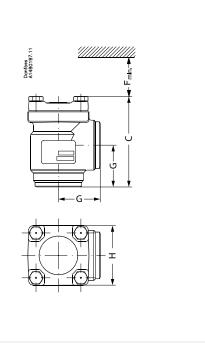
Valvo	Valve size		G	F <sub>min</sub>	н	Weight
CHV-X 15 (½ in.)	mm	103	45	60	60	1.2 kg
CHV-X 15 (72 III.)	in.	4.06	1.77	2.36	2.36	2.65 lb
CHV-X 20 (¾ in.)	mm	103	45	60	60	1.2 kg
CHV-X 20 (%4 III.)	in.	4.06	1.77	2.36	2.36	2.65 lb
CHV-X 25 (1 in.)	mm	143	55	85	70	2.3 kg
CHV-X 25 (1 III.)	in.	5.63	2.17	3.35	2.76	5.07 lb
CHV-X 32 (1¼ in.)	mm	143	55	85	70	2.3 kg
CHV-X 32 (174 III.)	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.



#### Table 15: SCA-X/CHV-X 50 - 65 (2 - 21/2 in.)





#### Table 16: SCA-X

Valve size		К		С	G		ØD	Н	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

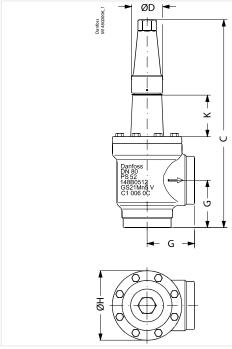
#### Table 17: CHV-X

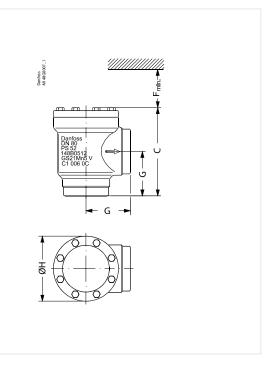
Valve size		C	G	F <sub>min.</sub>	н	Weight
SCA-X 50	mm	132	60	92	77	3.2 kg
SCA-X (2)	in.	5.2	2.36	3.62	3.03	7.10 lb
SCA-X 65	mm	152	70	107	90	4.5 kg
SCA-X (21/2)	in.	5.98	2.76	4.21	3.54	9.95 lb

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



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





#### Table 19: SCA-X

Valve	e size	К	С	G	ØD	ØН	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 <sub>min.</sub>	ØН	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

	Parts program										
Size	Housing									Top complete	
[DN]		A	NG			S.	TR		SCA-X	сну-х	
	DIN	ANSI	SD	SA	DIN	ANSI	SD	SA	JCH-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	148B	6718	148B6647	148B6637	148B	6739	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

	Service Kit <sup>(1)</sup> O-ring kit for			Complete valve								
Size			SVA (cap)				FIA					
[DN]	R717 Heat	R1270 Pro-	A	NG	ST	<b>FR</b>	A	IG	ST	TR		
	Pump	pylene	DIN	ANSI	DIN	ANSI	DIN	ANSI	DIN	ANSI		
6				148B5033		148B5053						
10	148B6084	148B6085		148B5034		148B5054						
15	148B6070	148B6077		148B5035		148B5055						
20	14600070	14000077		148B5036		148B5056						
25	4 400 6074 (2)	4 400 4070		148B5037		148B5057						
32	148B6071 <sup>(2)</sup> 148B6096 <sup>(3)</sup>	148B6078 148B6097		148B5038		148B5058						
40				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		

<sup>(1)</sup> to be used for SCA-X, CHV-X and REG SA/SB (all sizes) <sup>(2)</sup> to be used for SCA-X, CHV-X, 25-40

<sup>(3)</sup> to be used for REG SA/SB, 25-40



#### Certificates, declarations and approvals

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# 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						

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