

## Data sheet

# Shut-off valve

## Type QDV



QDV is a shut-off valve, designed particularly for draining oil from systems containing refrigerant (ammonia) under pressure.

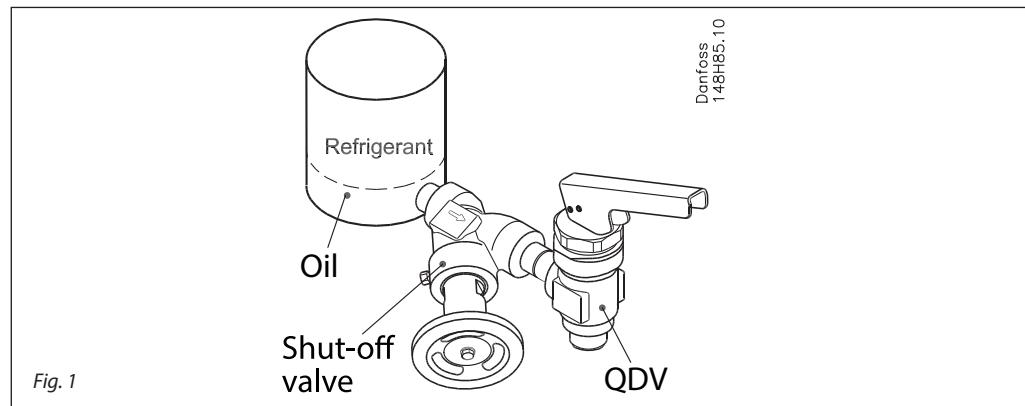
The valve will close immediately on release of the handle, thus protecting user and environment against unnecessary refrigerant leaks. The valve should as a rule be installed as illustrated in fig. 1.

In order to prevent hydraulic pressure building up between the stop valve and the QDV an integral relief device is included as part of the cone arrangement, which will open at approx. 16 bar (232 psig).

QDV is designed to meet the safety demands specified by national and international authorities within industrial refrigeration.

### Features

- Applicable to R717 (ammonia).
- Meets the safety demands within industrial refrigeration
- Handle can be positioned 360°
- Built-in integral relief device opening over 16 bar g (preventing hydraulic pressure building up between shut-off valve and QDV).
- Can be supplied together with a stop valve for quick on site mounting (fig. 1).
- Max. operating pressure:  
40 bar g (580 psi g).
- Temperature range:  
-50/+150°C (-58/+302°F).
- Classification: DNV, CRN, BV, EAC etc.  
To get an updated list of certification on the products please contact your local Danfoss Sales Company.



**Design***Connections*

Available with the following connections:

- Inlet: Welding DIN (EN 10220)  
1/2 in. FPT  
3/4 in. FPT
- Outlet: G 3/4 in. pipe thread (ISO 228/1)  
1/2 in. FPT  
3/4 in. FPT

*Optional extras for outlet:*

- Welding nipple DIN (EN 10220)
- Hose connection

Other types of connection are available on request.

*QDV - SVA combinations*

Combinations of the QDV together with a dedicated SVA have been established for easy selection. Please study page 6 to find the code numbers for these combinations.

*Installation*

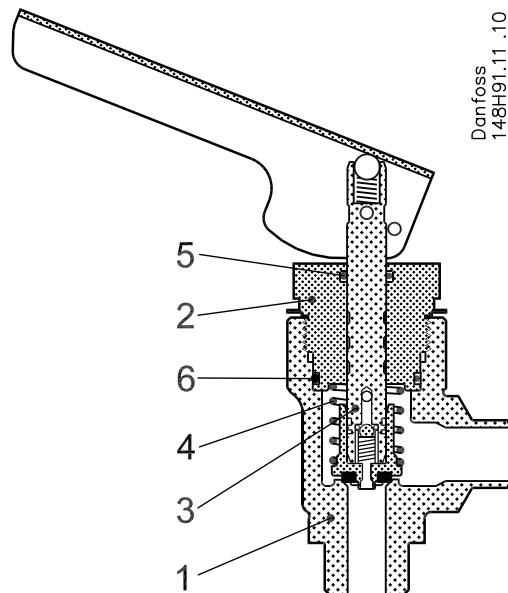
For further information refer to installation instruction for QDV.

**Technical data**

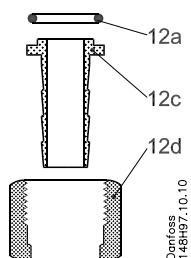
- Refrigerants  
Applicable to R717 (ammonia).
- QDV is a backpressure dependent valve. If any tube or hose is mounted on the outlet of the QDV it has to be calculated to prevent backpressure building up when relieving.
- For further information please see installation instruction for QDV.  
Flammable hydrocarbons are not recommended, for further information please contact your local Danfoss Sales Company.
- Temperature range  
–50/+150°C (–58/+302°F).
- Pressure  
The valve is designed for:  
Maximum operating pressure of 40 bar g  
(580 psi g)

## Material specification

QDV 15

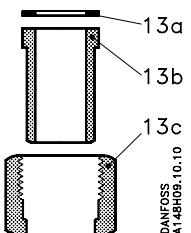


No.	Part	Material	DIN/EN	ASTM
1	Housing	Steel	G20Mn5QT EN10213-3	LCC A352
2	Bonnet	Steel St37-2	S235JR EN 10025	AISI 1015
3	Spindle/Cone	Stainless steel X10CrNiS18-9	S189 EN 10088-3	AISI 303
4	Spring	Steel		
5	O-ring	Cloroprene		
6	O-ring	Cloroprene		



Hose connection for outlet

No.	Part	Material
12a	O-rings	Cloroprene (Neoprene)
12c	Stub for hose - OD Ø15 mm	Steel
12d	Union nut - G 3/4"	Steel

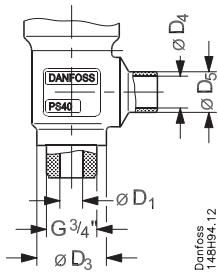


Welding nipple connection for outlet

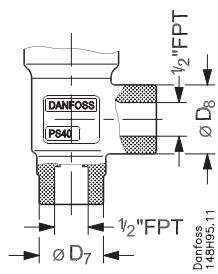
No.	Part	Material
13a	Al-packing	Aluminium
13b	Welding nipple - OD Ø21.3 mm	Steel (S235JR)
13c	Union nut - G 3/4"	Steel

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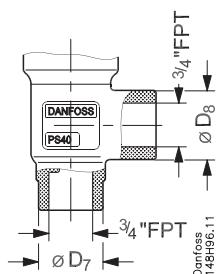
### Connections



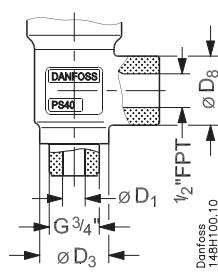
	$\varnothing D_1$	$\varnothing D_3$	$\varnothing D_4$	$\varnothing D_5$
QDV 15 DIN 15	mm in.	12 0.47	36.5 1.44	16.7 0.66
				21.3 0.84



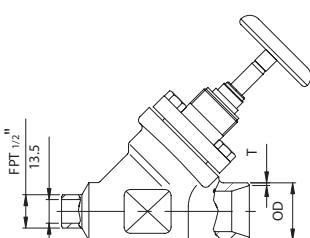
	$\varnothing D_7$	$\varnothing D_8$
QDV 15 1/2" FPT	mm in.	34 1.34
		36.5 1.44



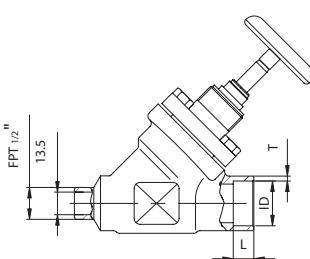
	$\varnothing D_7$	$\varnothing D_8$
QDV 15 3/4" FPT	mm in.	34 1.34
		36.5 1.44



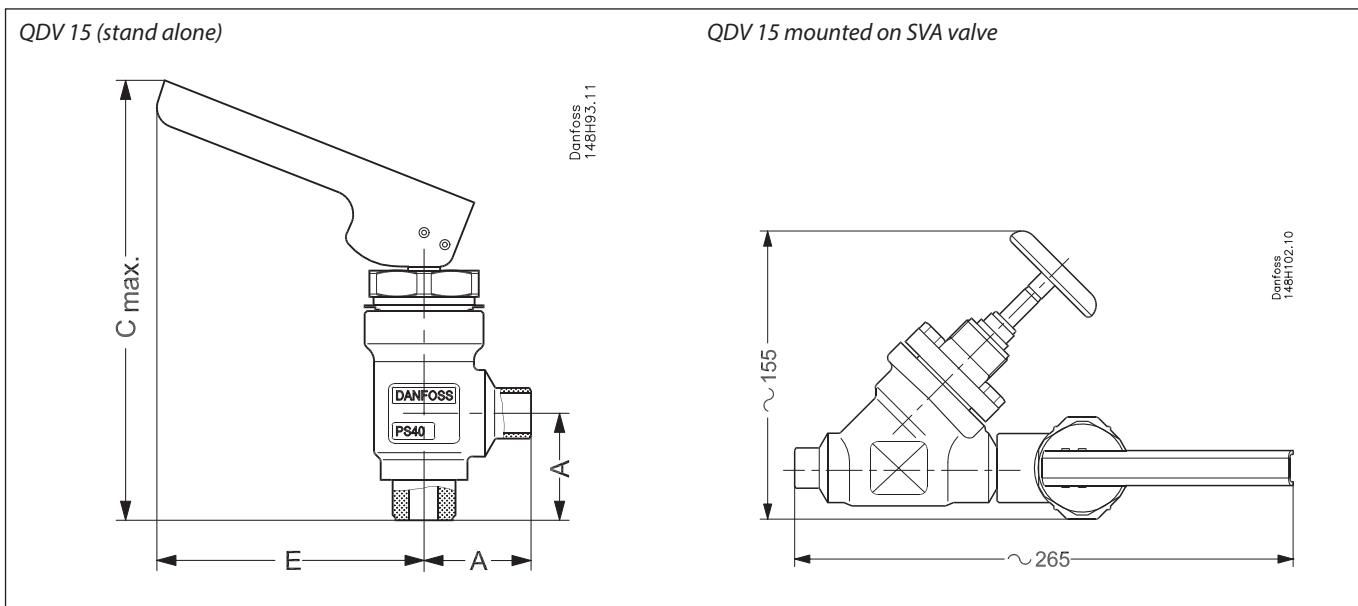
	$\varnothing D_1$	$\varnothing D_3$	$\varnothing D_8$
QDV 15 DIN 15	mm in.	12 0.47	36.5 1.44
			34 1.34



	OD	T	$k_v$ -straight $m^3/h$	$C_v$ -straight USgal/min
SVA-ST DIN 15	mm in.	21.3 0.839	2.3 0.091	4.9
				5.7



	ID	T	L	$k_v$ -straight $m^3/h$	$C_v$ -straight USgal/min
SVA-ST SOC 1/2 in.	mm in.	21.8 0.858	6.0 0.235	10 0.39	4.9 5.7

**Dimensions**


Valve size	A	C <sub>max</sub>	E
QDV 15	45 mm	185	109
	1.77 in.	7.28	4.29

**Ordering**
*How to order*

The table below is used to identify the valve required.

Type	Inlet	Outlet	Code no.
QDV 15 DN 15	DN 15	G 3/4 in.	<b>148H3272</b>
QDV 15 1/2 in. FPT	1/2 in. FPT	1/2 in. FPT	<b>148H3273</b>
QDV 15 3/4 in. FPT	3/4 in. FPT	3/4 in. FPT	<b>148H3274</b>
QDV 15 DN 15 + SVA-ST DN 15 H-WHEEL*	DN 15	G 3/4 in.	<b>148H3310</b>
QDV 15 1/2 in. FPT + SVA-ST SOC 1/2 in. H-WHEEL*	1/2 in. SOC	1/2 in. FPT	<b>148H3311</b>
Fittings for hose connection - G 3/4"			<b>148H3451</b>
Fittings for welding connection - G 3/4"			<b>148H3452</b>

\* Two valves are supplied in one box and should be mounted on site.  
The indicated inlet is for the stop valve - The indicated outlet is for the oil drain valve.

*Important!*

Where products need to be certified according to specific certification societies or where higher pressures are required, the relevant information should be included at the time of order.

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