

Data sheet

Receiver pressure regulator

Type KVD



KVD is a modulating receiver pressure regulator. It opens on falling receiver pressure and bypasses hot gas to maintain the receiver pressure at the regulator setting (adjustable).

KVD and KVR form a regulating system, used to maintain constant and adequately high condensing and receiver pressure in plant with heat-recovery, and in refrigeration and air conditioning plant with air-cooled condensers.

Features

- Accurate, adjustable pressure regulation
- Wide capacity and operating range
- Pulsation damping design
- Stainless steel bellows
- Compact angle design for easy installation in any position
- "Hermetic" brazed construction
- ¼ in. Schrader valve for pressure testing
- Available with flare and ODF solder connections
- Can be used as a relief valve from high pressure to suction side
- May be used in the following EX range: Category 3 (Zone 2)

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Approvals

UL LISTED, file SA7200
EAC

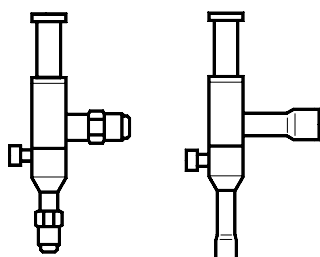
Technical data

Refrigerants	R22, R1270, R134a, R290, R404A, R407A, R407C, R407F, R448A, R449A, R450A, R452A, R507A, R513A, R600, R600a
Regulating range	3 – 20 bar Factory setting = 10 bar
Max. working pressure	PS / MWP = 28 bar
Max. test pressure	Pe = 31 bar
Medium temperature range	-45 – 130 °C

This product is evaluated for R290, R600, R600a, R1270 by ignition source assessment in accordance with standard EN13463-1.

For complete list of approved refrigerants, visit www.products.danfoss.com and search for individual code numbers, where refrigerants are listed as part of technical data.

Ordering



Type	k _v value ¹⁾	Flare connection ²⁾		Code no.	Solder connection		Code no.
	[m ³ / h]	[in]	[mm]		[in]	[mm]	
KVD 12	1.75	1/2	12	034L0171	1/2	–	034L0173
	1.75	–	–	–	–	12	034L0176
KVD 15	1.75	5/8	16	034L0172	5/8	16	034L0177

¹⁾ The k_v value is the flow of water in [m³ / h] at a pressure drop across valve of 1 bar, ρ = 1000 kg / m³

²⁾ KVD is supplied without flare nuts. Separate flare nuts can be supplied:
1/2 in / 12 mm, **code no. 011L1103**,
5/8 in / 16 mm, **code no. 011L1167**.

The connection dimensions chosen must not be too small, since gas velocities in excess of 40 m / s at the inlet of the regulator can give flow noise.

REACH requirements

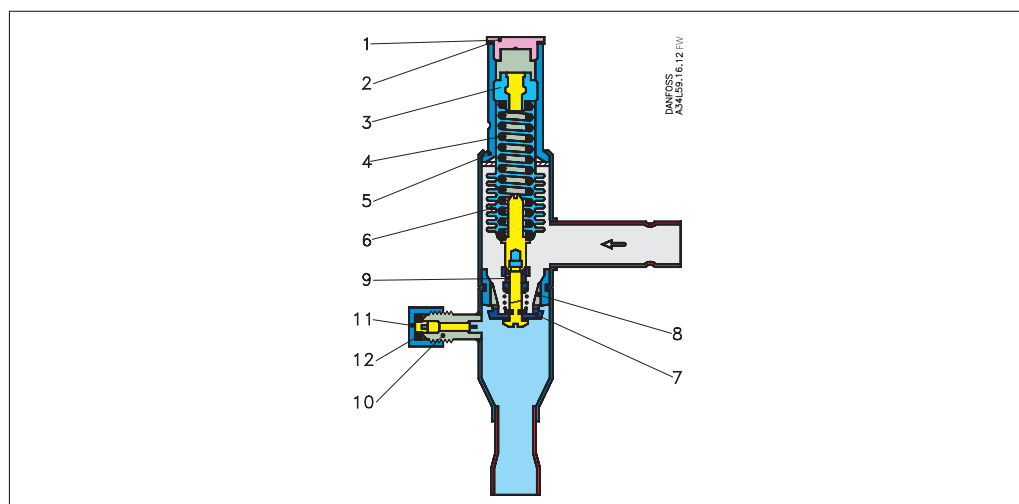
All Danfoss products fulfill the requirements in REACH.
One of the obligations in REACH is to inform customers about presence of Candidate list

substances if any, we hereby inform you about one substance on the candidate list:
an O-ring used in this product contains Diisopentyl phthalate (CAS no: 605-50-5) in a concentration above 0.1% w/w.

Design / Function

KVD

1. Protective cap
2. Gasket
3. Setting screw
4. Main spring
5. Valve body
6. Equalization bellows
7. Valve plate
8. Valve seat
9. Damping device
10. Pressure gauge connection
11. Cap
12. Gasket



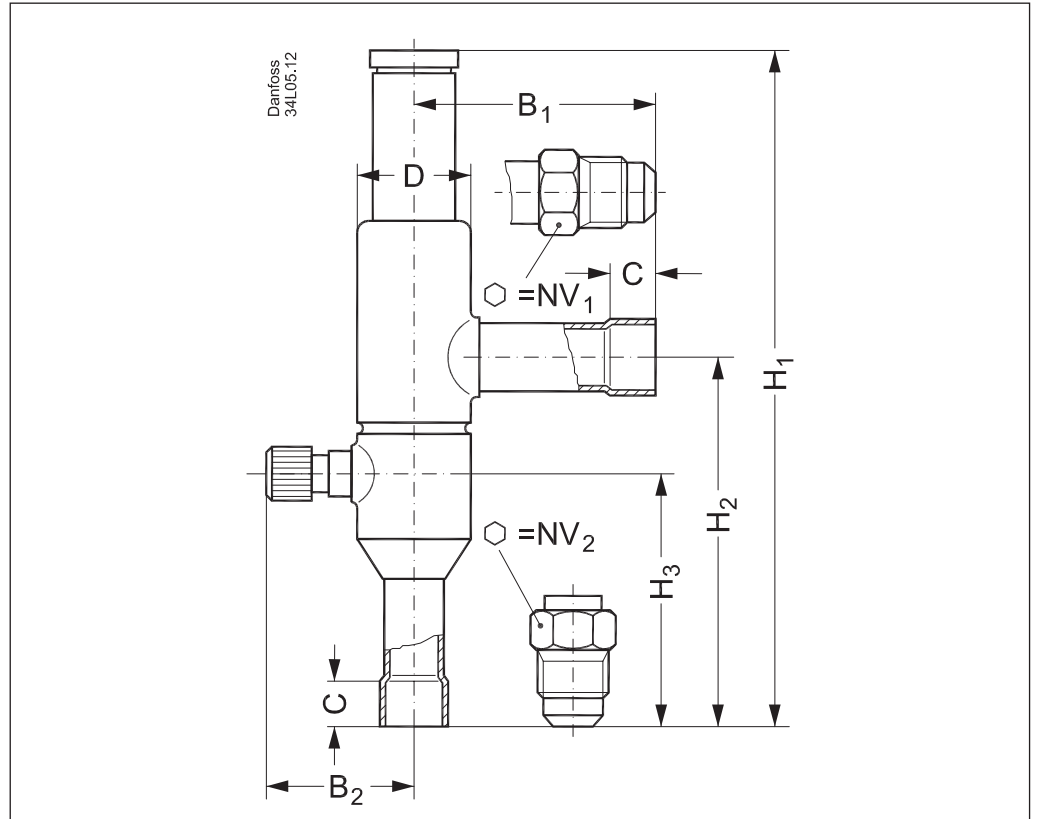
The receiver pressure regulator KVD opens at a fall in pressure on the outlet side, i.e. when the pressure in the receiver falls below the set value.

The KVD regulator is also equipped with an effective damping device (9) against pulsations which can normally arise in a refrigeration plant.

KVD regulates only in dependence on the outlet pressure. Pressure variations on the inlet side of the regulator do not affect the degree of opening since KVD is equipped with an equalization bellows (6). This bellows has an effective area corresponding to that of the valve seat.

The damping device helps to ensure long life for the regulator without impairing regulation accuracy.

Dimensions and weights



Type	Connection				NV ₁	NV ₂	H ₁	H ₂	H ₃	B ₁	B ₂	C solder	øD	Net weight
	Flare		Solder ODF											
	[in.]	[mm]	[in.]	[mm]										
KVD 12	1/2	12	1/2	12	19	24	179	99	66	64	41	10	30	0.4
KVD 15	5/8	16	5/8	16	24	24	179	99	66	64	41	12	30	0.4