ENGINEERING
TOMORROW

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 systems with heat-recovery, and in refrigeration and air conditioning systems with air-cooled condensers.

Features

- Accurate, adjustable pressure regulation
- Wide operating range
- Pulsation damping design
- Stainless steel bellows
- Compact angle design for easy installation in any position
- "Hermetic" brazed construction
- 1/4 in. access valve for pressure testing
- Available with flare and ODF solder connections
- May be used in the following EX range: Category 3 (Zone 2)

Approvals

UL US LISTED, file SA7200
EAN

Technical data

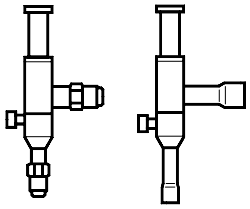
Refrigerants	R22, R134a, R290, R404A, R407A, R407C, R407F, R407H, R448A, R449A, R449B, R450A, R452A, R454A, R454C, R455A, R507A, R513A, R515B, R516A, R600, R600a, R1234ze(E), R1234yf, R1270
Regulating range	44 – 290 psig
Factory setting	145 psig
Maximum working pressure MWP	406 psig
Maximum test pressure	Pe = 450 psig
Medium temperature range [°F]	-49 – 266 °F

Metric conversions
1 psi = 0.07 bar
$^5/_9$ (t_1 °F -32) = t_2 °C
1 in = 25.4 mm

This product is approved for R290, R454A, R454C, R455A, R600, R600a, R1234ze(E), R1234yf, R1270 by ignition source assessment in accordance with standard EN ISO80079-36. Flare connections are only approved for A1 and A2L refrigerants.

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



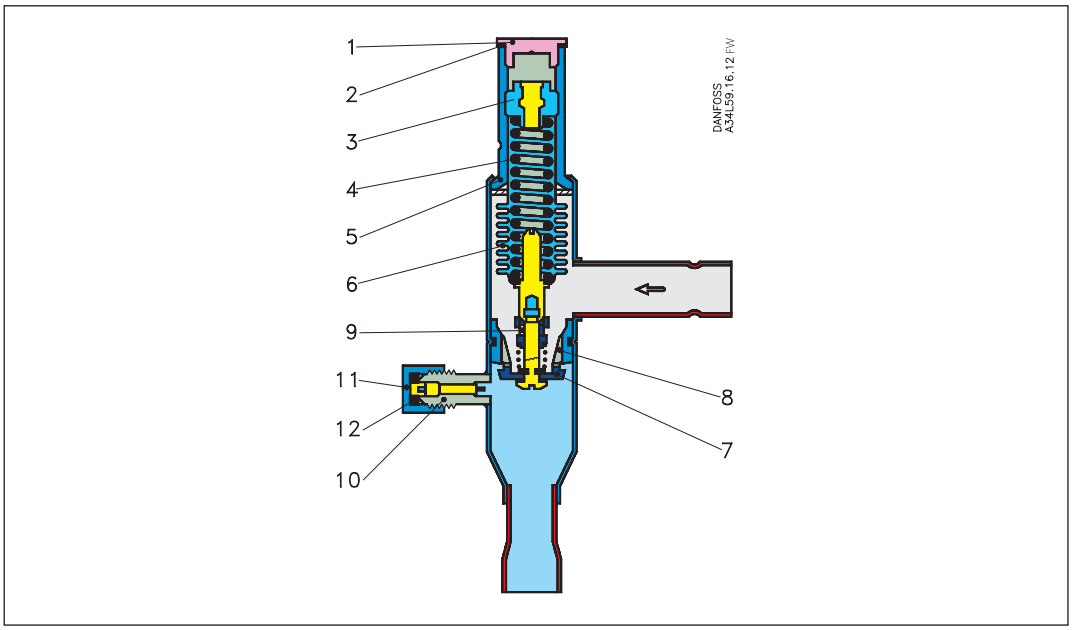
Type	Flare connection [1]		Solder connection	
	[in]	Code no.	[in]	Code no.
KVD 12	$^1/_2$	034L0171	$^1/_2$	034L0173
KVD 15	$^5/_8$	034L0172	$^5/_8$	034L0177

[1]) KVD supplied without flare nuts. Separate flare nuts can be supplied:
$^1/_2$ in., code no **011L1103**

The size of connection must not be chosen too small since gas velocities of more than 130 ft / s in the inlet can cause flow noise.

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

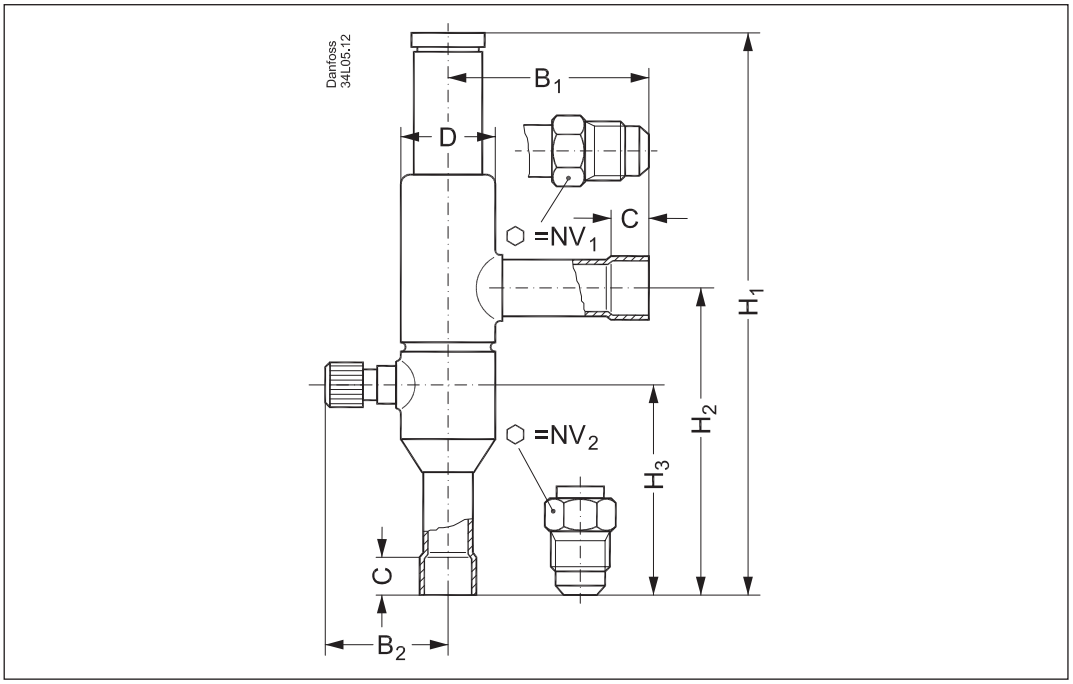
Type KVD regulates on outlet pressure only. Pressure variations on the inlet side of the regulator do not affect the degree of opening as the valve is equipped with an equalization bellows (6).

This bellows has an effective area corresponding to that of the valve seat neutralizing any affect to the setting.

The regulator is also equipped with a damping device (9) providing protection against pulsations which can normally arise in a refrigeration system. The damping device helps to ensure long life for the regulator without impairing regulation accuracy.

Metric conversions
1 psi = 0.07 bar
$^5/_9$ (t_1 °F -32) = t_2 °C
1 in. = 25.4 mm
1 US gal / min = 0.86 m^3 / h

Dimensions and weights



Type	Connection		NV_1	NV_2	H_1	H_2	H_3	B_1	B_2	C	ø D	Net weight
	Flare	Solder ODF										
	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[lbs]
KVD 12	1/2	1/2	0.748	0.945	7.047	3.898	2.598	2.520	1.614	0.394	1.181	0.9
KVD 15	5/8	5/8	0.945	0.945	7.047	3.898	2.598	2.520	1.614	0.394	1.181	0.9