

Check valve

NRV 10s H

for R744 (CO₂)

Description

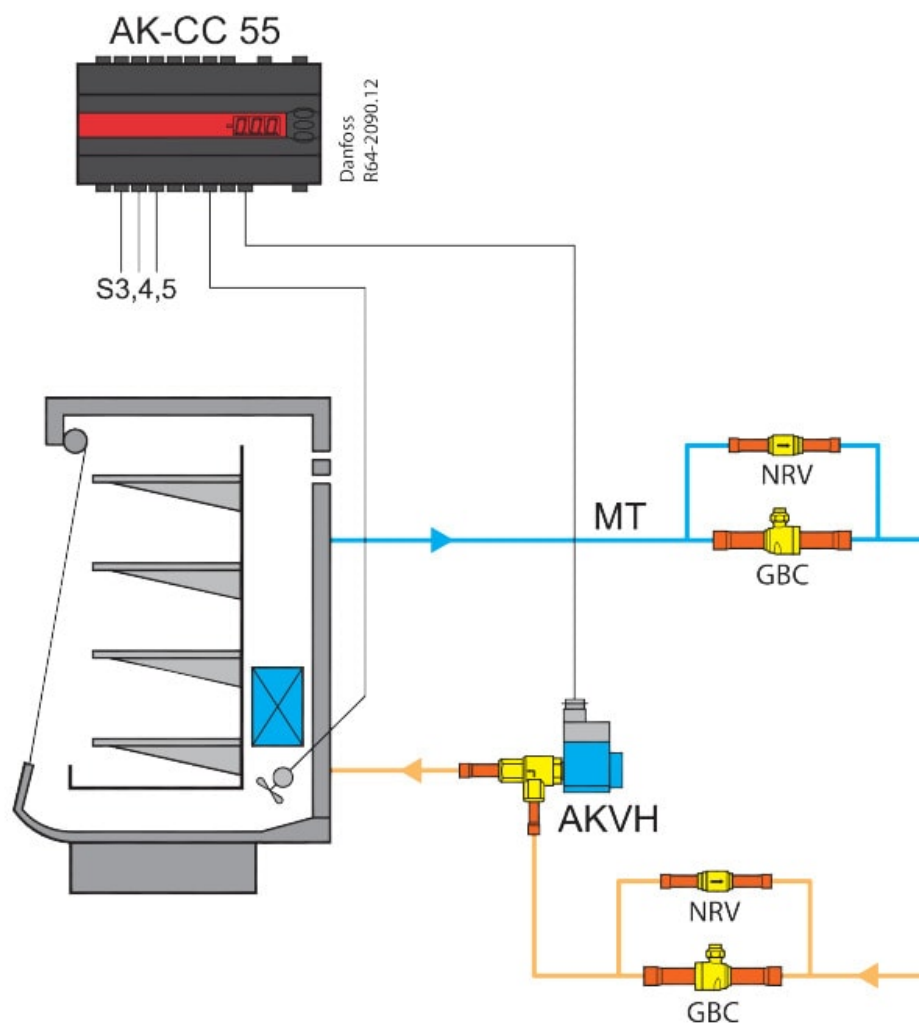
NRV 10s H check valves for R744 (CO₂) can work as an internal relief valve when installed in parallel with GBC Ball Valves or service shut off valves, at the inlet and outlet of components to be serviced. The NRV 10s H can also be used in hot gas defrosting lines.

Features & Benefits

- The valve ensures that refrigerant only flow in one direction
- Allows for internal pressure relief in the standstill system or during maintenance
- The valve can withstand 90 bar / 1305 psig differential pressure
- The valve can withstand 90 bar / 1305 psig maximum working pressure

Applications

NRV 10s H for CO₂ can be installed at component inlet and outlet in parallel with GBC ball valve and function as relief valve to release the pressure in the stand-still system during maintenance.



When the NRV is used together with GBC in parallel as a pressure relief valve, it is recommended to install the NRV above the GBC.

Ordering

Product code numbers

Type	Outlet connection type	Outlet size [in]	Outlet size [mm]	MinODP [bar]	MinODP [psi]	Kv value [m ³ /h]	Cv value [gal/min]	Code number
NRV 10s H	Solder ODF	3/8 in		0.400	5.800	0.900	1.040	020B4000
NRV 10s H	Solder ODF		10.00	0.400	5.800	0.900	1.040	020B4300

1) ΔP_1 = Minimum Opening Pressure Differential

2) The k_v value is the flow of water in m³/h at a pressure drop across valve of 1 bar $\rho = 1000 \text{ kg/m}^3$.

The C_v value is the flow of water in gal/min at a pressure drop across valve of 14.5 ps

Product details

General data

Refrigerants	R744 (CO ₂)
Oil	Oil POE, PAG
Media temperature range	-50 – 140 °C / -58 – 285 °F
Max. working pressure (PS/MWP)	90 bar / 1305 psig



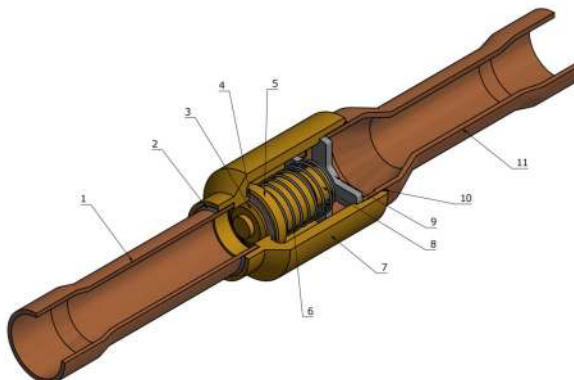
Notes:

For the application use with R744 as part of a secondary loop or cascade:

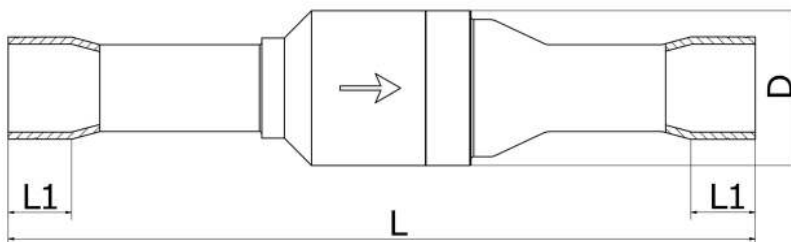
1. The design pressure of the refrigerant containing component is not less than the design pressure of the associated components.
2. The component is not provided with any pressure relief or pressure regulating relief valve and that a sufficient number of valves having capacity deemed adequate shall be field-installed on the refrigeration system.
3. When the refrigeration system is de-energized, venting of R744 may occur through the pressure regulating relief valves, and may need to be recharged, but the valve should not be defeated or bypassed.
4. A sufficient number of pressure relief and pressure regulating valves may need to be provided based upon system capacity and located such that no stop valve is provided between the relief valve and the parts or section of the system being protected.

Design

- 1. Copper tube
- 2. Solder ring
- 3. Washer
- 4. Sealing disk with special material
- 5. Piston
- 6. Spring
- 7. Valve body
- 8. Guide
- 9. Stop face
- 10. Solder ring
- 11. Copper tube



Dimensions & weights



ODF solder version - SI Units

Type	Connection type	Connection size		L [mm]	L1 [mm]	Φ D [mm]	Weight [kg]
		[in.]	[mm]				
NRV 10s H	Straightway Solder ODF	3 / 8		109	8	18	0.07
			10	109	9	18	0.07

ODF solder version - US Units

Type	Connection type	Connection size		L [in]	L1 [in.]	Φ D [in.]	Weight [lb]
		[in.]					
NRV 10s H	Straightway Solder ODF	3 / 8		4.29	0.31	0.71	0.15

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.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Manufacturer's Declaration	Danfoss MD 033F4010	Danfoss	EU RoHS
Manufacturer's Declaration	Danfoss MD 033F4006	Danfoss	China RoHS
Manufacturer's Declaration	Danfoss MD 033F4001.AH	Danfoss	PED
Manufacturer's Declaration	Danfoss MD 033F4017.AD	Danfoss	
EAC Declaration	EAC KZ 7100841.13.12.01346	EAC - Eurasian Customs Union	MD
EAC Declaration	EAC KZ 7100841.13.12.01345	EAC - Eurasian Customs Union	MD
UA Declaration	Danfoss UA 2023-01-10 Valves PL01 PL40	Danfoss	PED
Pressure Safety Certificate	LLC CDC EURO-TYSK UA.TR.089.1015.02-22	LLC CDC EURO TYSK - Ukraine	PED

Contact details

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