CHECK VALVES

How It Works

The function of a check valve is to allow fluid flow in one direction only.

The Henry Group range are lift check valves.

Applications

Henry Group's check valves are suitable for HCFC and HFC refrigerants, along with their associated oils. 116 series valves and NRV14/18 models are also suitable for use with A2L refrigerants compatible with their materials of construction.

A typical application is to install a check valve downstream of an oil separator. This prevents condensed liquid refrigerant returning down the discharge line and into the separator.

Main Features

- Robust design
- Flow direction arrow
- Quiet and efficient operation
- Minimum opening pressure
- Models with copper extensions – NRV E
- UL listed 116 series

Technical Specification

Allowable operating pressure = 0 to 34.5 barg (205 and NRV series)

Allowable operating pressure = 0 to 60 barg (116 series)

Allowable operating temperature:

116 series = -40°C to +150°C

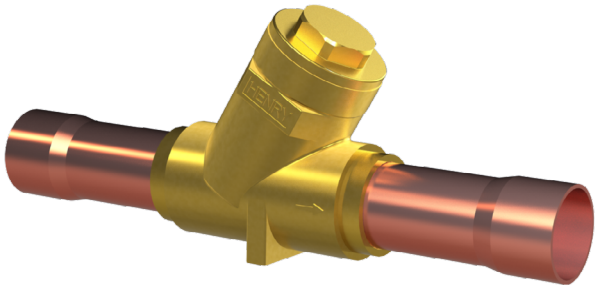
205 series = -29°C to +150°C

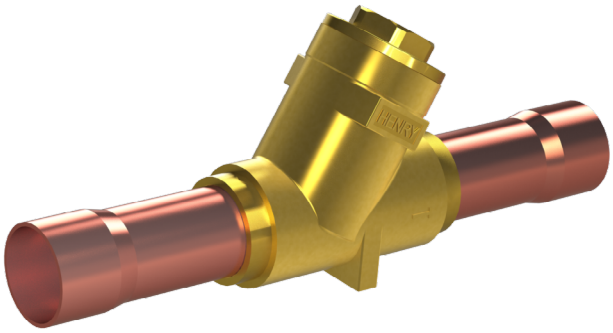
NRV series = -40°C to +120°C

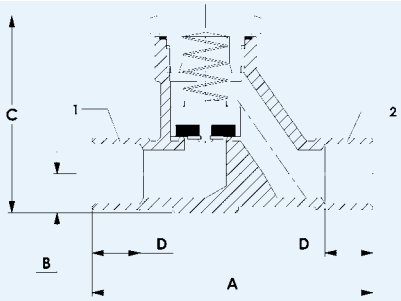
Typically, Henry check valves will start to open at 0.034 barg and be fully open at 0.34 barg pressure differential.

Materials of Construction

The valve body for the 205 series is made from cast bronze. All other check valve bodies are made from brass. All pistons are made from brass. Springs are made from stainless steel. The seat seal material is PTFE for the 116, 205 and NRV series.

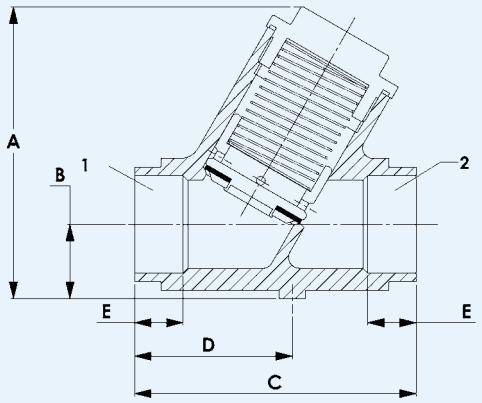




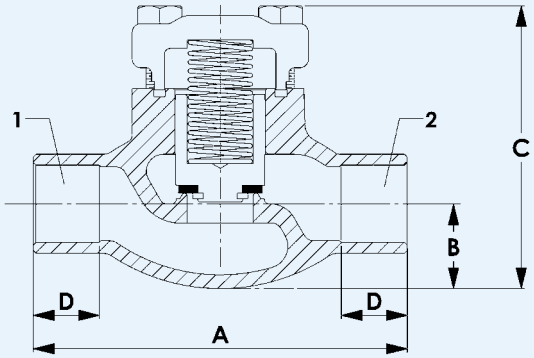


116 SERIES

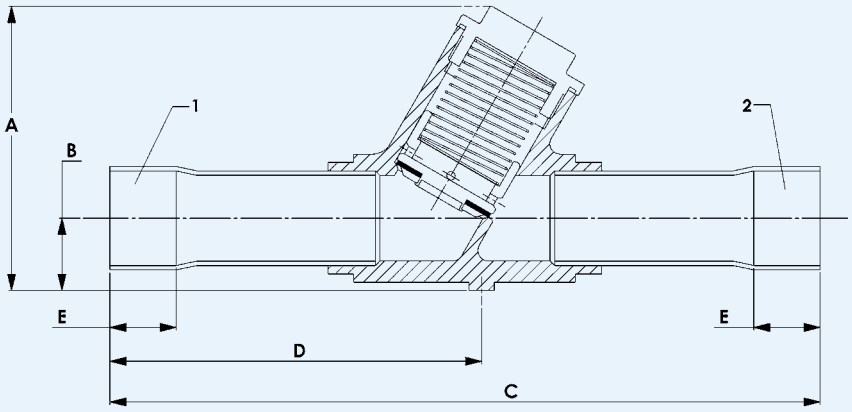
Part No	Conn Size (inch)	Dimensions (mm)				Weight (kg)	Kv (m^3/hr)	CE/ UKCA Cat
		A	B	C	D			
116003	3/8 ODS	75	10	52	8	0.24	1.38	SEP
116004	1/2 ODS	75	10	52	10	0.23	1.90	SEP
116005	5/8 ODS	75	10	52	13	0.22	2.25	SEP
116007	7/8 ODS	99	16	75	22	0.92	3.10	SEP



NRV SERIES



205 SERIES



NRV E SERIES

1.INLET
2.OUTLET

Part No	Conn Size (inch)	Dimensions (mm)				Weight (kg)	Kv (m^3/hr)	CE/UKCA Cat
		A	B	C	D			
205-7/8	7/8 ODS	108	25	80	19	1.10	4.58	SEP
205-1 1/8	1 1/8 ODS	124	29	98	24	2.02	6.40	SEP
205-1 3/8-CE	1 3/8 ODS	137	32	108	25	2.64	8.90	Cat I
205-1 5/8-CE	1 5/8 ODS	165	38	129	29	4.43	11.50	Cat I
205-2 1/8-CE	2 1/8 ODS	216	51	157	38	7.75	19.03	Cat I
205-2 5/8-CE	2 5/8 ODS	279	57	183	43	12.50	31.57	Cat I

Part No	Conn Size (inch)	Dimensions (mm)					Weight (kg)	Kv (m^3/hr)	CE/UKCA Cat
		A	B	C	D	E			
NRV14	7/8 ODS	78	20	70	38	11	0.60	5	SEP
NRV18	1 1/8 ODS	78	20	70	38	11	0.53	8.5	SEP
NRV22	1 3/8 ODS	106	27	102	57	17	1.30	13.5	SEP
NRV26-CE	1 5/8 ODS	106	27	102	57	17	1.20	16	Cat I

Part No	Conn Size (inch)	Dimensions (mm)					Weight (kg)	Kv (m^3/hr)	CE/UKCA Cat
		A	B	C	D	E			
NRV14E	7/8 ODS	78	20	191	98	19	0.77	5.0	SEP
NRV18E	1 1/8 ODS	78	20	225	116	23	0.79	8.5	SEP
NRV22E	1 3/8 ODS	106	27	264	138	25	1.70	13.5	SEP
NRV26E-CE	1 5/8 ODS	106	27	270	138	28	1.60	16.0	Cat I

Installation – Main issues

1. Valves must be installed in accordance with the flow direction arrow.
2. The valve bodies and valve internals must be protected against damage during brazing. Full instructions are given in the Product Instruction Sheet, included with each valve.
3. Series 116 valves can be installed in any position except bonnet down. This is the same for 205 series up to 1 3/8” size. For larger sizes, the bonnet must be positioned upwards. The bonnet of the NRV series should be positioned upwards.
4. Discharge check valves should be positioned as far from the compressor as possible.