***YCVS** SERIES*

CHECK VALVE PISTON TYPE

Piston type check valves are designed for installation in commercial refrigerating systems and in residential or industrial air conditioning plants. They are used to control the unidirectional flow of refrigerant so as to prevent backflow. A specific section of the present datasheet is related to the Check Valves models suitable for installation in system using flammable refrigerants HFO (categories A2* and A2L*), and Hydrocarbons HC (category A3*).

*According to ANSI-ASHRAE 34-2016 and EN-378-1 ANNEX EN 378-1:2016 Annex E

FEATURES

- THIS VALVE CAN ENSURE THE ONLY CORRECT FLOW DIRECTION
- EQUIPPED WITH DAMPING SPRING TO FREELY INSTALL THE VALVE AT POSITIONS WITH PRESSURE PULSE
- AVAILABLE IN 2 LAYOUTS DEPENDING BY SIZE:
  STRAIGHTWAY VALVE AND L-SHAPE VALVE, EASY TO CONNECT.
- SPECIAL VERSION OF CHECK VALVE EQUIPPED WITH REINFORCED SPRING, APPLICABLE TO COMPRESSOR DISCHARGE PIPES IN SINGLE OR MULTI COMPRESSOR SYSTEMS (YCVSH & YCVSH-R SERIES)
- LOW PRESSURE DROP DURING OPERATION
- TYPES WITH PORT SIZE BIGGER 25MM HAVING PED CAT.II BY TUV RHEINLAND.

GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC, HC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507A, R407A/F, R290, R32, R1234yf, R1234ze, R448A/R449A, R452A, R450A/R513A, R744
- Ambient temperature range: from -30°C to +60°C
- Medium temperature TS min./max.:
  -50°C / 150°C
- Max. operating pressure PS:
  4,9 MPa (49 bar)
- Installation position:
  - Flow direction corresponds to the arrow
  - The suggested positions are described in the installation instructions
- Declaration of Conformity issued in accordance with PED directive (2014/68/EU)
- Certifications: UL/CSA

CHECK VALVE PISTON TYPE

GENERAL CHARACTERISTICS

1a. Models with normal piston spring

Model	Part Number	Type	Connections Ø d ODF		Kv	Min. OPD	DN	PS	max TS	PED Category [Fluid Group 1]	PED Category [Fluid Group 2]
			[inch]	[mm]	[m³/h]	[kPa]	[mm]	[bar]	[°C]		
YCVS2H02	10162001502	S	-	6	0,56	5	5,0	49	150	Art. 4.3	Art. 4.3
YCVS2H01	10162001602	S	1/4	-	0,56	5	5,0	49	150	Art. 4.3	Art. 4.3
YCVS3H01	10162000402	S	3/8	-	1,60	5	7,9	49	150	Art. 4.3	Art. 4.3
YCVS3H02	10162000502	S	-	10	1,60	5	7,9	49	150	Art. 4.3	Art. 4.3
YCVS4H02	10162000802	S	-	12	2,64	5	11,1	49	150	Art. 4.3	Art. 4.3
YCVS4H01	10161001302	S	1/2	-	2,64	5	11,1	49	150	Art. 4.3	Art. 4.3
YCVS5H03	10161001602	S	5/8	16	4,00	5	13,0	49	150	Art. 4.3	Art. 4.3
YCVS6H04	10162003702	S	-	18	6,80	5	17,1	49	150	Art. 4.3	Art. 4.3
YCVS6H03	10161001702	S	3/4	-	6,80	5	17,1	49	150	Art. 4.3	Art. 4.3
YCVS7H03	10161001802	S	7/8	22	6,80	5	17,1	49	150	Art. 4.3	Art. 4.3
YCVS 20-77GSHC-1	10160030002	L	7/8	22	13,20	10	19,8	49	150	Art. 4.3	Art. 4.3
YCVS 26-88GSHC-1	10160037202	L	-	28	19,02	10	25,6	49	150	Cat.2	Art. 4.3
YCVS 26-99GSHC-1	10160030102	L	1 1/8	-	19,02	10	25,6	49	150	Cat.2	Art. 4.3
YCVS 31-BBGSHC-1	10160024402	L	1 3/8	35	29,10	10	31,0	49	150	Cat.2	Art. 4.3
YCVS 31-DDGSHC-1	10160037002	L	1 5/8	-	29,10	10	31,0	49	150	Cat.2	Art. 4.3
YCVS 31-DDGSHC-2	10160032402	L	-	42	29,10	10	31,0	49	150	Cat.2	Art. 4.3

CHECK VALVE PISTON TYPE

1b. Models with reinforced piston spring

Model	Part Number	Type	Connections Ø d ODF		Kv	Min. OPD	DN	PS	max TS	PED Category [Fluid Group 1]	PED Category [Fluid Group 2]
			[inch]	[mm]	[m³/h]	[kPa]	[mm]	[bar]	[°C]		
YCVSH3H01	10162000602	S	3/8	-	1,60	15	7,9	49	150	Art. 4.3	Art. 4.3
YCVSH3H02	10162000702	S	-	10	1,60	15	7,9	49	150	Art. 4.3	Art. 4.3
YCVSH4H02	10162001302	S	-	12	2,64	15	11,1	49	150	Art. 4.3	Art. 4.3
YCVSH4H01	10162001202	S	1/2	-	2,64	15	11,1	49	150	Art. 4.3	Art. 4.3
YCVSH5H03	10162001102	S	5/8	16	4,00	15	13,0	49	150	Art. 4.3	Art. 4.3
YCVSH6H04	10162003802	S	-	18	6,80	15	17,1	49	150	Art. 4.3	Art. 4.3
YCVSH6H03	10162001002	S	3/4	-	6,80	15	17,1	49	150	Art. 4.3	Art. 4.3
YCVSH7H03	10162000902	S	7/8	22	6,80	15	17,1	49	150	Art. 4.3	Art. 4.3
YCVSH 20-77GSHC-1	10160034602	L	7/8	22	13,20	30	19,8	49	150	Art. 4.3	Art. 4.3
YCVSH 26-88GSHC-1	10160023702	L	-	28	19,02	30	25,6	49	150	Cat.2	Art. 4.3
YCVSH 26-99GSHC-1	10160034702	L	1 1/8	-	19,02	30	25,6	49	150	Cat.2	Art. 4.3
YCVSH 31-BBGSHC-1	10160037402	L	1 3/8	35	29,10	30	31,0	49	150	Cat.2	Art. 4.3
YCVSH 31-DDGSHC-1	10160037102	L	1 5/8	-	29,10	30	31,0	49	150	Cat.2	Art. 4.3
YCVSH 31-DDGSHC-2	10160042302	L	-	42	29,10	10	31,0	49	150	Cat.2	Art. 4.3

Note: For the simulation of the performance, please refer to the Sanhua selection tool "Quickfinder" or ask your local support.

CHECK VALVE PISTON TYPE

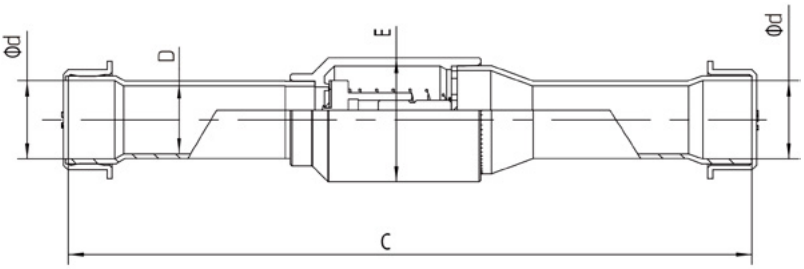
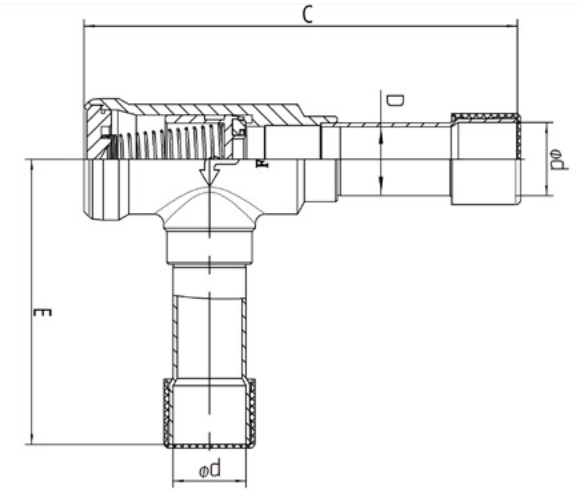
DIMENSIONS AND WEIGHTS

Models (table 1a)	Models (table 1b)	Type	Dimensions			Weight [kg]
			ØD	C	E	
			[mm]	[mm]	[mm]	
YCVS2H02	-	S	5	90	18	0,046
YCVS2H01	-	S	5	90	18	0,046
YCVS3H01	YCVSH3H01	S	8	110	17	0,046
YCVS3H02	YCVSH3H02	S	8	110	17	0,046
YCVS4H02	YCVSH4H02	S	10	130	21	0,069
YCVS4H01	YCVSH4H01	S	10	130	21	0,069
YCVS5H03	YCVSH5H03	S	13	140	23.5	0,107
YCVS6H04	YCVSH6H04	S	17	165	30	0,168
YCVS6H03	YCVSH6H03	S	17	165	30	0,169
YCVS7H03	YCVSH7H03	S	17	165	30	0,174
YCVS 20-77GSHC-1	YCVSH 20-77GSHC-1	L	20	132	87	0,427
YCVS 26-88GSHC-1	YCVSH 26-88GSHC-1	L	26	196	123	1,050
YCVS 26-99GSHC-1	YCVSH 26-99GSHC-1	L	26	196	123	1,132
YCVS 31-BBGSHC-1	YCVSH 31-BBGSHC-1	L	31	196	123	1,154
YCVS 31-DDGSHC-1	YCVSH 31-DDGSHC-1	L	31	196	123	1,182
YCVS 31-DDGSHC-2	YCVSH 31-DDGSHC-2	L	31	196	123	1,184

CHECK VALVE PISTON TYPE

GENERAL CHARACTERISTICS

Straight-way



L-shape