

HORTI VALVE 3-WAY

control valve powered by Hora



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Description

The Horti Valve is a high-quality control valve developed in collaboration with Hora. Hora is a renowned German family-owned company specializing in control valves for the industry and offshore sector, among others. The Horti Valve features excellent and reliable control characteristics. Moreover, the control valve is available in a complete series to optimally regulate your climate.

3-way control valve

The Horti Valve 3-way control valve is available from DN15 up to DN300 and has been specifically configured for Van der Ende Group for use in heating and cooling technology in greenhouse horticulture. Depending on the flow rate, the control valves are equipped with either PN6 or PN16 flange connections.

Control valve specifications

The Horti Valve is suitable for heating systems in horticulture, utilities, and industry for cold and hot water (max. 50% glycol), with a temperature range from 0 to 150 °C. The control valve, with optional shaft heating, is suitable for water with antifreeze addition down to -10 °C. Above 130 °C, the valves must be mounted in a horizontal position.

- o Number of ports: 3-way
- o Nominal diameter: DN15-DN200, DN250-DN300 (on request)
- o Pressure rating:
 - DN15 through DN100: PN6
 - DN125 & DN300: PN16
- o KVS values: 4-1600
- o Leakage percentage: EN 1349 - seat leakage VI G 1 (tight sealing)
- o Material:
 - Body: cast iron EN-JL 1040
 - Plug: brass CW614N (DN15- DN100), stainless steel 1.4021 (DN125-DN150), stainless steel 1.4057 (DN200)
 - Shaft: CrMo steel 1.4122
 - Shaft seal: O-ring EPDM





Servo motors

Van der Ende Group offers an extensive range of Hora servo motors for controlling heating, cooling, and air handling systems. These are specially configured for operating 3-way control valves.

Electrically powered

There are many versions of electric servo motors for the Horti Valve 3-way control valves, from 14 to 60 mm. All types of electric servo motors can be equipped with additional limit switches. Position feedback is available from the MC160 model onwards.

Unique features

- o Frost protection
- o Automatic lock protection
- o Wire break detection
- o Automatic initialization after power failure
- o Feedback contact for manual operations (starting from MC100)

Servo motors specifications

- o Series: MC55, MC100, MC160, MC220, & MC500
- o Control voltage: 24VAC/DC, 230VAC; optional 115VAC
- o Frequency: 50/60 Hz
- o Input signal: 3-point + fixed power supply (standard), optional 4-20 mA and 0-10V (from MC100 onwards)
- o Output signal: 0-10VDC (standard), optional 4-20 mA (from MC100 onwards)
- o Protection class:
 - IP54 in automatic operation
 - IP30 in manual operation
- o End contacts: optional
- o Manual operation feedback: Yes (from MC100 onwards)



Connection options

Connection options	Input				Output		Operation time	Drive force
Motor	3 point (4-wire)	3 point (3-wire)	(0)4-20mA	(0)2-10V	4-20mA	0-10V	sec/mm	kN
MC55	✓	-	-	-	-	✓	5 of 9	0,6
MC55Y	✓	-	✓	✓	-	✓	5 of 9	0,6
MC55DL	-	✓	-	-	-	-	5 of 9	0,6
MC100	✓	-	✓	✓	optional	✓	1,9, 4, 9 of 12	1
MC100DL	-	✓	-	-	-	-	2 of 4	0,8
MC160	✓	-	✓	✓	optional	✓	4 of 6	1,6
MC220	✓	-	✓	✓	optional	✓	3	2,2
MC500	✓	-	✓	✓	optional	✓	3,5 of 5	5,0

Selection of control valve with servo motor

Control valve	DN	Flanges PN	KVS	Clearance (mm)	Matching servomotor	Operation time (sec)	Weight of valve incl. motor kg	H (mm)	L (mm)	W + H (mm)
Horti Valve 3W BRG306 GF/E	15	6	4	14	MC55/24	70 or 126	3,7	267	130	332
Horti Valve 3W BRG306 GF/E	20	6	6,3	14	MC55/24	70 or 126	4,5	272	150	342
Horti Valve 3W BRG306 GF/E	25	6	10	14	MC55/24	70 or 126	5,2	277	160	352
Horti Valve 3W BRG306 GF/E	32	6	16	14	MC55/24	70 or 126	7,1	277	180	372
Horti Valve 3W BRG306 GF/E	40	6	25	14	MC55/24	70 or 126	8,5	282	200	382
Horti Valve 3W BRG306 GF/E	50	6	40	14	MC55/24	70 or 126	9,9	282	230	382
Horti Valve 3W BRG306 GF/E	65	6	63	20	MC55/24	100 or 180	16,2	332	290	452
Horti Valve 3W BRG306 GF/E	80	6	100	30	MC100/24	57, 120, 270 or 360	25,2	412,5	310	542,5
Horti Valve 3W BRG306 GF/E	100	6	160	30	MC160/24	120 or 180	33,8	422,5	350	572,5
Horti Valve 3W BRG316 GF/E	125	16	250	30	MC220/24	90	51,2	493	400	653
Horti Valve 3W BRG316 GF/E	150	16	315	30	MC220/24	90	79	499,5	480	669,5
Horti Valve 3W BRG316 GF/E	200	16	500	60	MC500/24	210 or 300	143	825	600	1040

