

VY5400

Actival Motorized Three-Way Valve

The VY5400 is a motorized three-way valve with flanged connection. The valve and the actuator are integrated in a single unit. The body rating corresponds to JIS 10K. The actuator has a reversible synchronous motor that operates at a low voltage of 24Vac.



Specifications

Valve body pressure rating		JIS 10K (Max. pressure 0.98MPa)
Piping connections		JIS 10K flanged connection: flat face (FF)
Close-off ratings		Size 50A: 300kPa, 65A: 200kPa, 80A: 150kPa (100kPa for diverting)
Valve materials	Body	Gray cast iron (JIS FC200)
	Retainer	Stainless steel
	Ball and stem	Stainless steel
	Seat ring	PTFE with filler
	Gland packing	Non-asbestos packing
Gasket		Non-asbestos joint sheet
Allowable fluid temperature		0 to 100°C
Applicable fluids		Chilled/hot water
Power		24Vac ±15% 50/60Hz
Power consumption		F motor type: 7VA Other types: 8VA
Timing		63±5s (50Hz), 53±5s (60Hz)
Ambient temperature		-20 to +50°C
Ambient humidity		5 to 95% RH
Actuator materials	Case	Aluminum alloy casting
	Cover	Plastic (polycarbonate resin)
	Yoke	Steel plate
Control signal		Nominal 135Ω feedback potentiometer, nominal 135Ω resistance input, 4-20mA input (input impedance: 100Ω), and 2-10Vdc input (input impedance: 150kΩ or more).
Analog output (only with 4-20mA and 2-10Vdc inputs)		Range: 2Vdc (0%) to 10Vdc (100%) Max. load: 10kΩ or more (max. 1mA)
Protective structure		Splash-proof (equivalent to IP54)
Mass	Valve size	50A 65A 80A
	Mass (kg)	14 19 20.5

Selection Guide

I II III IV V VI

Example: VY5410F0051

Segment	Model No. selection		Description	
I	Basic No.	VY54	Motorized three-way valve with flanged connection	
II	Actuator/valve control signal	1	Nominal 135Ω feedback potentiometer (F motor type)	
		2	Nominal 135Ω resistance input (E motor type)	
		3	4-20mA input with 2-10Vdc feedback signal	
		4	2-10Vdc input with 2-10Vdc feedback signal	
III	Actuator/valve rating/material	0	JIS 10K / JIS FC200	
IV	Actuator type	F	Splash-proof (IP54), standard torque type, and actuator with terminal block.	
V	Option	00	None	
VI	Valve size and Cv value		Valve size	Cv value
		51	50A	45
		61	65A	70
		81	80A	100

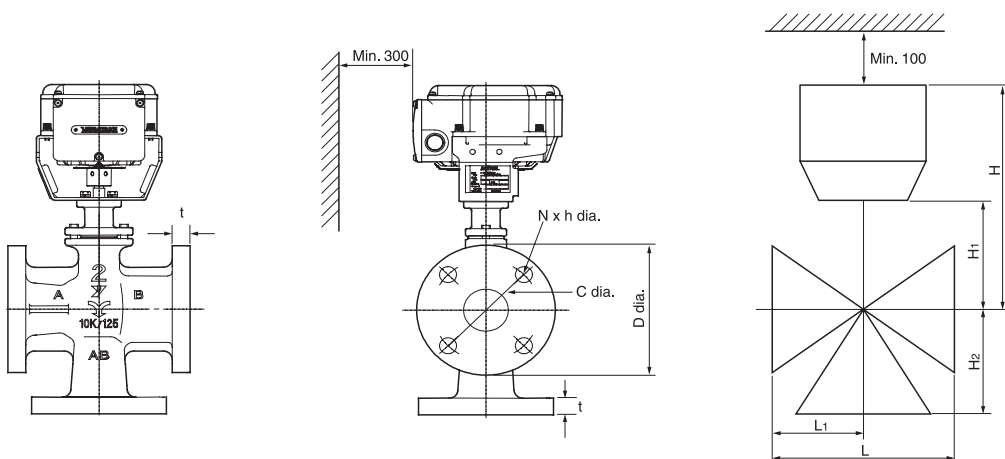
Accessories (sold separately)

Model No.	Description
AT72-J1	Power supply transformer
83104346-003	Seal connector
83161792-001	Auxiliary switch*
83161793-001	Auxiliary potentiometer*

* Either an auxiliary switch or an auxiliary potentiometer can be added, but not both.

Dimensions

(Unit: mm)



* Leave a clearance of 300mm if you require to open the top cover after the ACTIVAL is installed.

Valve size	L	L1	H	H1	H2	D	C	t	h	N
50A	204	102	262	123.5	125	155	120	20	19	4
65A	230	115	266.5	128	130	175	140	22	19	4
80A	240	120	271	132.5	150	185	150	22	19	8