

# NotionControl

THE INTELLIGENT POINT OF BUILDINGS



## Technical Data

**Torque:** 2-32 Nm

**Control signal:** On/off, 3-point, 0-10VDC, 4-20mA

**Power supply:** 24 VAC, 230 VAC

**Power consumptions:** 3,5-7,0 W

**Angle of rotation:** 100° (-5° to 95°)

**Direction of rotation:** Can be selected by back to front mounting

**Connection:** Cable 900 mm / 0.75 mm<sup>2</sup>

**Safety class:** III

**Protection:** IP 54 (cable downwards)

**Ambient temperature:** -20 to +50°C

**Maintenance:** Maintenance free

**CE:** 73/23 EWG, 89/336 EWG

## DA

### Damper Actuators

#### Applications

The Actuator is intended for ON-OFF and floating point controls in HVAC systems. It can easily mount on an 1/2" round or square shaft with solid screw sets. Angle of rotation is mechanically limited to 90. When the actuator reaches its maximum position, the device will automatically stop. An override lever is provided on the side to manually disengage the gear. Two mechanical stops are provided for extra adjustments. The magnetic clutch allows the device to be operated in the stalled condition indefinitely, no need to interlock the motor at the end of travel. Running time is independent of the load. Two optional endswitches provide status points or interlocks for fans & other devices.

#### Highlights

- Simple Direct Mounting
- Stall-Proof Synchronous AC Motor
- Adjustable Angle of Rotation with Mech. Stops
- Manual Override Lever
- Consistent running time
- Visual Position Indicator

#### Models

Descriptions	Code			
Damper Actuator	DA			
Power Supply				
24 VAC	L			
230 VAC	H			
Other	X			
Control Type				
On/Off		2		
3 point		3		
4-20 mA		4		
0-10 VDC		5		
Spring-Return				
No			0	
Yes			1	
Torque				
x Nm				- x

## FC

### Fan Coil Unit Valves & Thermostats

#### Applications

FCT series room thermostats are used in industrial, commercial and residential environments and is especially designed for Cooling/Heating equipment to maintain the room temperature. FCT series room thermostats allow users to choose from 3 speeds in order to control the outlet air speed.

FCV series two way and three way zone valves with On/Off action and spring return. The valves can handle hot or cold water zone control and are designed to withstand the high moisture conditions found in many concealed coil installations. Zone control valves are operated by a synchronous motor rotating a spring loaded shaft. A metal tab allows the valve to be put in to the manual open position, which springs to auto the first time the valve is powered up.

#### Technical Data

**Power Voltage:** 24/110/230 (VAC)

**Power Consumption:** 5W(only valve position change)

**Dimension:** 1/2", 3/4", 1"

**Valve Pressure:** 300psi (2MPa)

**Max. Differential Pressure:** 150psi (1MPa)

**Running Time:** 15sec.(50Hz)/12 sec.(60Hz)

**Media Temp.Range:** 1°C to 95°C

**Operating Mode:** On/off, 3-point control and modulating



## VG and VGA

### Globe Valves & Actuators

#### Description

VG series accurately regulate the flow of water or steam in response to the demand of a controller in heating, ventilating and air conditioning systems. These valves are available in normally open, normally closed, and three-way mixing configurations. Both electric and pneumatic actuators can be used. Valves are available in 1" through 12" size.

#### Specifications

- Complies with ANSI Class 250 (PSIG) standard.
- Flexible ordering using the guide provided in the spec sheets.
- Every valve tested for tight shutoff assuring occupant comfort and energy conservaiton.
- Uses standard ring pack packing providing industry leading reliability and operating life.
- Complete actuator interchangeability allowing easy field retrofit or mounting using standardized mounting kits.
- All valve sizes available with brass trim for use in saturated steam applicaitons of up to 100psig.

#### Installation Instructions

Install globe valves with the fluid passing in the direction shown on the valve body and with suitable, strainers to prevent pipe shavings and debris from entering the valve body.

Preferred installation is upright, however, in high temperature installations (and where space restrictions dictate) the valve assembly should be mounted on its side, slightly above horizontal, so that the high temperatures rising from the pipe do not over heat the actuator. This will ensure maximum life expectancy and best performance while any leaking from the valve packing will run off the valve body rather than onto the operator.





## Models

Descriptions	Code			
Globe Valve, 2 way	VG2			
Globe Valve, 3 way	VG3			
<b>Size</b>				
DN 25		1		
DN 32		2		
DN 40		3		
DN 50		4		
DN 65		5		
DN 80		6		
DN 100		7		
DN 125		8		
DN 150		9		
DN 200		A		
DN 250		B		
DN 300		C		
<b>Pressure</b>				
PN 6			1	
PN 10			2	
PN 16			3	
PN 25			4	
PN 40			5	
<b>Connection Type</b>				
Threaded				1
Flanged				2

Descriptions	Code			
Globe Valve Actuator	VGA			
<b>Tork</b>				
800 N		1		
1.000 N		2		
2.500 N		3		
4.000 N		4		
<b>Control Type</b>				
0...10V			1	
4...20mA			2	
3P, Floating			3	
<b>Manuel Drive</b>				
No				0
Yes				1

## VG and VGA Globe Valves & Actuators



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## VR

Rotary Valves & Actuators (2/3 way, DN12...50)

### Applications

Motorized ball valve is using bi-directional motor, and mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium.



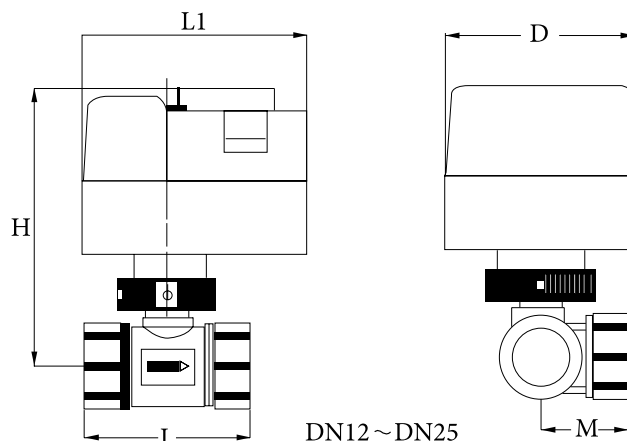
DN12...DN25



DN32...DN50

Actuator Technical Data			
Power Supply	24VAC	220VAC	24VAC
Frequency	50/60Hz		
Power	3VA on load	5VA on load	4VA on load
Control Signal	3-point floating, electric on / off		DC0(2) ~ 10V DC4(0) ~ 20mA
Default Setting	----		Input 0 ~ 10V DC Feedback 0 ~ 10V DC Running Status DA
Torque	DN12 ~ DN25		>= 4Nm
	DN32 ~ DN50		>= 6Nm
Stroke Time(0~90°)	DN12 ~ DN25	about 45s (50Hz/90°) / 90s for optional	
	DN32 ~ DN50	about 60s (50Hz/90°) / 120s for optional	
Rotation Angle	90° <= Mechanical Limitation < 95°		
Cable	0.5 ~ 1mm <sup>2</sup>		
Material	Cover	Fire-retardent ABS engineering plastic	
	Chassis	Fire-retardent Reinforced nylon PA6 - 110	
	Gear	POM, Fire-retardent Reinforced nylon PA6-230, Brass HPb59-1	
Temperature	Operating: -5 ~ +50°C; Storage: -30 ~ +70°C		
Protection Class	IP54		

### Dimension (mm)



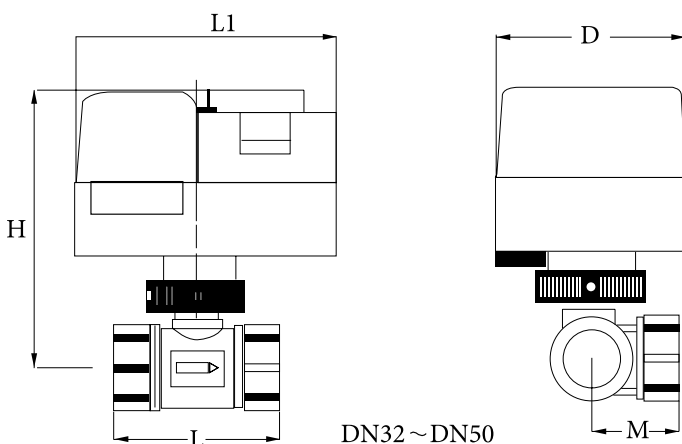
Valve Technical Data	
Working Media	Chilled / hot water or <= 50% glycot
Media Temperature	2 ~ 94°C
Rated Body Pressure	PN25
Flow Characteristic	Equal Percentage
Leakage	A.B port 0~0.01% Kv AB port 0.5% Kv
Connection Type	Thread
Closing-off Pressure	600kPa
Rotation Angle	90°
Installation Level	Horizontal / Vertical

Material	
Valve Body	Forged Brass
Valve Ball	Stainless Steel / Casting Brass (chrome-plate)
Valve Seat	PTFE
Valve Shaft	Stainless Steel / Forged Brass
Seal	NBR

## VR

Rotary Valves & Actuators  
(2/3 way, DN12...50)

Size	Rated Body Pressure	Kv	Dimension(mm)					
			L		H	M	L1	D
			2 way	3 way				
DN12	PN25	4.0	68	68	115	33	92	77
DN18		6.3	68	68	115	34		
DN25		10	82	84	120	43		
DN32		16	98	104	131	50	123	78
DN40		25	105	111	131	50		
DN50		40	122	143	135	61		



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## VR

Rotary Valves & Actuators (2 way, DN65...150)

### Applications

Motorized ball valve is using bi-directional motor, and mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium.



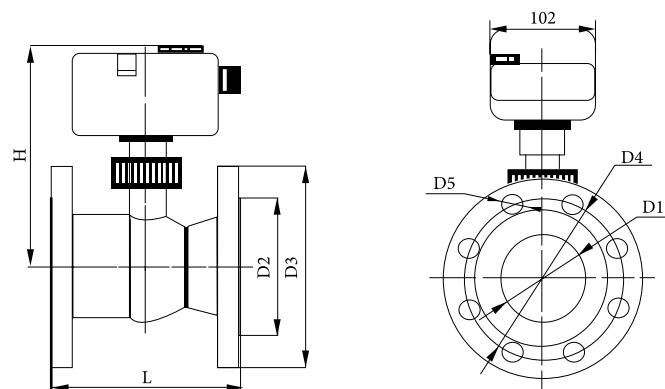
DN65...DN100



DN125...DN150

Actuator Technical Data			
Power Supply	24VAC	220VAC	24VAC
Power	DN65 ~ DN100	4.5VA on load	8.5VA on load
	DN125 ~ DN150	10VA on load	
Control Signal	3-point floating / electric on / off		DC0(2) ~ 10V DC4(0) ~ 20mA
Default Setting	----		Input 0 ~ 10V DC Feedback 0 ~ 10V DC Running Status DA
Torque	DN65 ~ DN100		>= 25 Nm
	DN125 ~ DN150		>= 65 Nm
Stroke Time(0~90°)	120s (50Hz)		
Rotation Angle	90° <= Mechanical Limitation < 95°		
Cable	0.5 ~ 1mm <sup>2</sup>		
Material	Cover	Fire-retardant ABS engineering plastic	
	Chassis	Casting Aluminum Alloy	
	Gear	DN65 ~ DN100	POM, Steel
DN125 ~ DN150		Brass, HPb59-1, Steel (40Cr, 45)	
Temperature	Operating: -5 ~ +50°C; Storage: -30 ~ +70°C		
Protection Class	IP54		

### Dimension (mm)

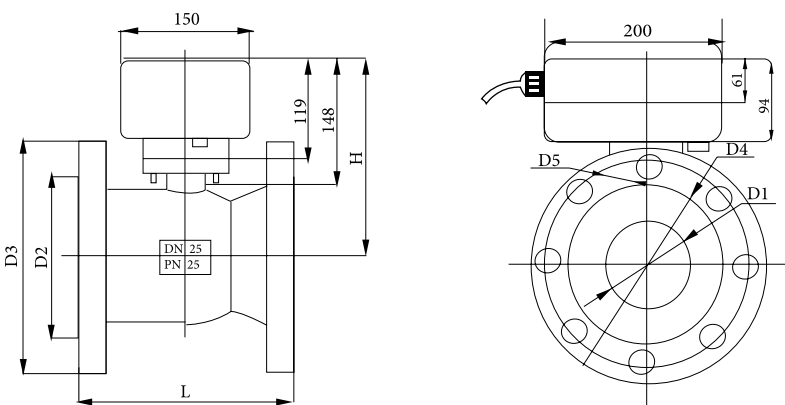


DN65 ~ DN100

Valve Technical Data	
Working Media	Chilled / hot water or <= 50% glycot
Media Temperature	2 ~ 94°C
Rated Body Pressure	PN16 / PN25
Flow Characteristic	Equal Percentage
Leakage	Less than 0~0.01% Kv
Connection Type	Flanged
Closing-off Pressure	600kPa
Rotation Angle	90°
Installation Level	Horizontal / Vertical

Material	
Valve Body	Casting Iron
Valve Ball	Stainless Steel
Valve Seat	PTFE
Valve Shaft	Stainless Steel
Seal	NBR

Size	Rated Body Pressure	Kv	Dimension(mm)						
			L	H	D1	D2	D3	D4	D5
DN65	PN16 (PN25)	64	190 (190)	216 (216)	82 (82)	120 (120)	185 (185)	145 (145)	18 (18)
DN80		102	190 (190)	216 (216)	82 (82)	136 (136)	200 (200)	160 (160)	18 (18)
DN100		163	230 (230)	226 (226)	102 (102)	156 (162)	220 (236)	180 (190)	18 (23)
DN125		260	254 (254)	232 (232)	125 (125)	188 (188)	250 (270)	210 (220)	18 (26)
DN150		416	267 (267)	250 (250)	154 (154)	210 (215)	285 (300)	240 (250)	22 (26)



DN25 ~ DN150

## VR

Rotary Valves & Actuators  
(2 way, DN65...150)



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## Technical Data

**Torque:** 2-32 Nm

**Control signal:** On/off, 3-point, 0-10VDC, 4-20mA

**Power supply:** 24 VAC, 230 VAC

**Power consumptions:** 3,5-7,0 W

**Angle of rotation:** 100° (-5° to 95°)

**Direction of rotation:** Can be selected by back to front mounting

**Connection:** Cable 900 mm / 0.75 mm<sup>2</sup>

**Safety class:** III

**Protection:** IP 54 (cable downwards)

**Ambient temperature:** -20 to +50°C

**Maintenance:** Maintenance free

**CE:** 73/23 EWG, 89/336 EWG

## DA

### Damper Actuators

#### Applications

The Actuator is intended for ON-OFF and floating point controls in HVAC systems. It can easily mount on an 1/2" round or square shaft with solid screw sets. Angle of rotation is mechanically limited to 90. When the actuator reaches its maximum position, the device will automatically stop. An override lever is provided on the side to manually disengage the gear. Two mechanical stops are provided for extra adjustments. The magnetic clutch allows the device to be operated in the stalled condition indefinitely, no need to interlock the motor at the end of travel. Running time is independent of the load. Two optional endswitches provide status points or interlocks for fans & other devices.

#### Highlights

- Simple Direct Mounting
- Stall-Proof Synchronous AC Motor
- Adjustable Angle of Rotation with Mech. Stops
- Manual Override Lever
- Consistent running time
- Visual Position Indicator

#### Models

Descriptions	Code			
Damper Actuator	DA			
Power Supply				
24 VAC	L			
230 VAC	H			
Other	X			
Control Type				
On/Off		2		
3 point		3		
4-20 mA		4		
0-10 VDC		5		
Spring-Return				
No			0	
Yes			1	
Torque				
x Nm				- x

## FC

### Fan Coil Unit Valves & Thermostats

#### Applications

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#### Technical Data

**Power Voltage:** 24/110/230 (VAC)

**Power Consumption:** 5W(only valve position change)

**Dimension:** 1/2", 3/4", 1"

**Valve Pressure:** 300psi (2MPa)

**Max. Differential Pressure:** 150psi (1MPa)

**Running Time:** 15sec.(50Hz)/12 sec.(60Hz)

**Media Temp.Range:** 1°C to 95°C

**Operating Mode:** On/off, 3-point control and modulating



## VG and VGA

### Globe Valves & Actuators

#### Description

VG series accurately regulate the flow of water or steam in response to the demand of a controller in heating, ventilating and air conditioning systems. These valves are available in normally open, normally closed, and three-way mixing configurations. Both electric and pneumatic actuators can be used. Valves are available in 1" through 12" size.

#### Specifications

- Complies with ANSI Class 250 (PSIG) standard.
- Flexible ordering using the guide provided in the spec sheets.
- Every valve tested for tight shutoff assuring occupant comfort and energy conservaiton.
- Uses standard ring pack packing providing industry leading reliability and operating life.
- Complete actuator interchangeability allowing easy field retrofit or mounting using standardized mounting kits.
- All valve sizes available with brass trim for use in saturated steam applicaitons of up to 100psig.

#### Installation Instructions

Install globe valves with the fluid passing in the direction shown on the valve body and with suitable, strainers to prevent pipe shavings and debris from entering the valve body.

Preferred installation is upright, however, in high temperature installations (and where space restrictions dictate) the valve assembly should be mounted on its side, slightly above horizontal, so that the high temperatures rising from the pipe do not over heat the actuator. This will ensure maximum life expectancy and best performance while any leaking from the valve packing will run off the valve body rather than onto the operator.





## Models

Descriptions	Code			
Globe Valve, 2 way	VG2			
Globe Valve, 3 way	VG3			
<b>Size</b>				
DN 25		1		
DN 32		2		
DN 40		3		
DN 50		4		
DN 65		5		
DN 80		6		
DN 100		7		
DN 125		8		
DN 150		9		
DN 200		A		
DN 250		B		
DN 300		C		
<b>Pressure</b>				
PN 6			1	
PN 10			2	
PN 16			3	
PN 25			4	
PN 40			5	
<b>Connection Type</b>				
Threaded				1
Flanged				2

Descriptions	Code			
Globe Valve Actuator	VGA			
<b>Tork</b>				
800 N		1		
1.000 N		2		
2.500 N		3		
4.000 N		4		
<b>Control Type</b>				
0...10V			1	
4...20mA			2	
3P, Floating			3	
<b>Manuel Drive</b>				
No				0
Yes				1

## VG and VGA Globe Valves & Actuators



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## VR

Rotary Valves & Actuators (2/3 way, DN12...50)

### Applications

Motorized ball valve is using bi-directional motor, and mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium.



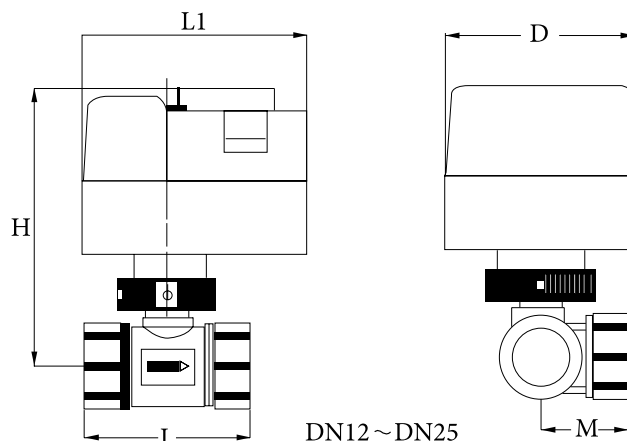
DN12...DN25



DN32...DN50

Actuator Technical Data			
Power Supply	24VAC	220VAC	24VAC
Frequency	50/60Hz		
Power	3VA on load	5VA on load	4VA on load
Control Signal	3-point floating, electric on / off		DC0(2) ~ 10V DC4(0) ~ 20mA
Default Setting	----		Input 0 ~ 10V DC Feedback 0 ~ 10V DC Running Status DA
Torque	DN12 ~ DN25		>= 4Nm
	DN32 ~ DN50		>= 6Nm
Stroke Time(0~90°)	DN12 ~ DN25	about 45s (50Hz/90°) / 90s for optional	
	DN32 ~ DN50	about 60s (50Hz/90°) / 120s for optional	
Rotation Angle	90° <= Mechanical Limitation < 95°		
Cable	0.5 ~ 1mm <sup>2</sup>		
Material	Cover	Fire-retardent ABS engineering plastic	
	Chassis	Fire-retardent Reinforced nylon PA6 - 110	
	Gear	POM, Fire-retardent Reinforced nylon PA6-230, Brass HPb59-1	
Temperature	Operating: -5 ~ +50°C; Storage: -30 ~ +70°C		
Protection Class	IP54		

### Dimension (mm)



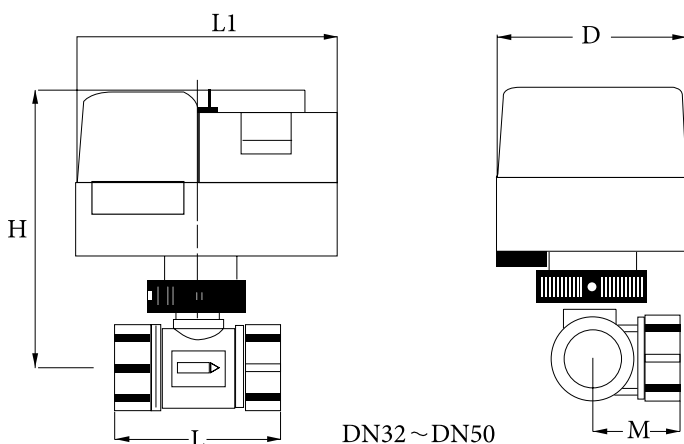
Valve Technical Data	
Working Media	Chilled / hot water or <= 50% glycot
Media Temperature	2 ~ 94°C
Rated Body Pressure	PN25
Flow Characteristic	Equal Percentage
Leakage	A.B port 0~0.01% Kv AB port 0.5% Kv
Connection Type	Thread
Closing-off Pressure	600kPa
Rotation Angle	90°
Installation Level	Horizontal / Vertical

Material	
Valve Body	Forged Brass
Valve Ball	Stainless Steel / Casting Brass (chrome-plate)
Valve Seat	PTFE
Valve Shaft	Stainless Steel / Forged Brass
Seal	NBR

## VR

Rotary Valves & Actuators  
(2/3 way, DN12...50)

Size	Rated Body Pressure	Kv	Dimension(mm)					
			L		H	M	L1	D
			2 way	3 way				
DN12	PN25	4.0	68	68	115	33	92	77
DN18		6.3	68	68	115	34		
DN25		10	82	84	120	43		
DN32		16	98	104	131	50	123	78
DN40		25	105	111	131	50		
DN50		40	122	143	135	61		



# NotionControl

THE INTELLIGENT POINT OF BUILDINGS

## VR

Rotary Valves & Actuators (2 way, DN65...150)

### Applications

Motorized ball valve is using bi-directional motor, and mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium.



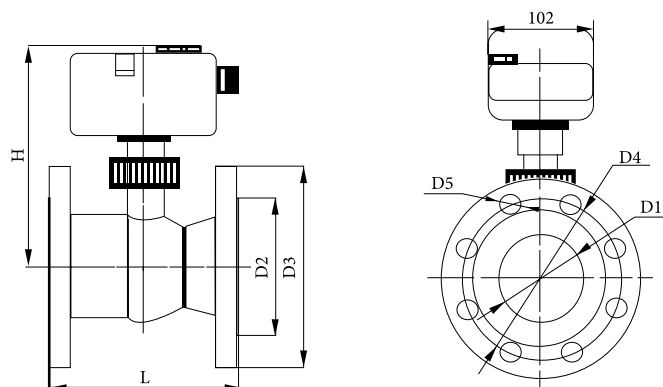
DN65...DN100



DN125...DN150

Actuator Technical Data			
Power Supply	24VAC	220VAC	24VAC
Power	DN65 ~ DN100	4.5VA on load	8.5VA on load
	DN125 ~ DN150	10VA on load	
Control Signal	3-point floating / electric on / off		DC0(2) ~ 10V DC4(0) ~ 20mA
Default Setting	----		Input 0 ~ 10V DC Feedback 0 ~ 10V DC Running Status DA
Torque	DN65 ~ DN100		>= 25 Nm
	DN125 ~ DN150		>= 65 Nm
Stroke Time(0~90°)	120s (50Hz)		
Rotation Angle	90° <= Mechanical Limitation < 95°		
Cable	0.5 ~ 1mm <sup>2</sup>		
Material	Cover	Fire-retardant ABS engineering plastic	
	Chassis	Casting Aluminum Alloy	
	Gear	DN65 ~ DN100	POM, Steel
DN125 ~ DN150		Brass, HPb59-1, Steel (40Cr, 45)	
Temperature	Operating: -5 ~ +50°C; Storage: -30 ~ +70°C		
Protection Class	IP54		

### Dimension (mm)

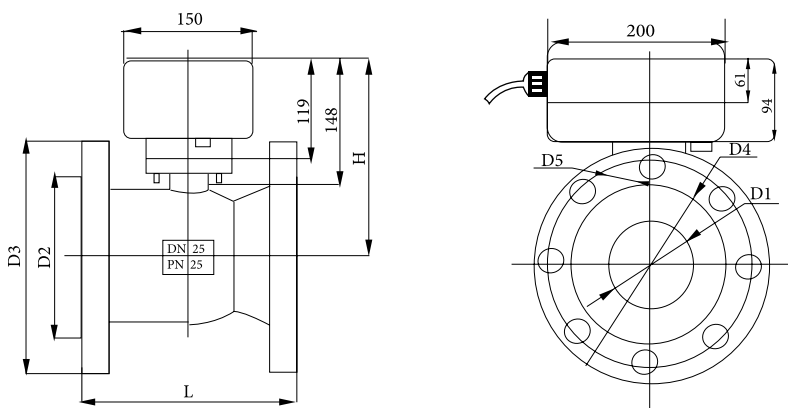


DN65 ~ DN100

Valve Technical Data	
Working Media	Chilled / hot water or <= 50% glycot
Media Temperature	2 ~ 94°C
Rated Body Pressure	PN16 / PN25
Flow Characteristic	Equal Percentage
Leakage	Less than 0~0.01% Kv
Connection Type	Flanged
Closing-off Pressure	600kPa
Rotation Angle	90°
Installation Level	Horizontal / Vertical

Material	
Valve Body	Casting Iron
Valve Ball	Stainless Steel
Valve Seat	PTFE
Valve Shaft	Stainless Steel
Seal	NBR

Size	Rated Body Pressure	Kv	Dimension(mm)						
			L	H	D1	D2	D3	D4	D5
DN65	PN16 (PN25)	64	190 (190)	216 (216)	82 (82)	120 (120)	185 (185)	145 (145)	18 (18)
DN80		102	190 (190)	216 (216)	82 (82)	136 (136)	200 (200)	160 (160)	18 (18)
DN100		163	230 (230)	226 (226)	102 (102)	156 (162)	220 (236)	180 (190)	18 (23)
DN125		260	254 (254)	232 (232)	125 (125)	188 (188)	250 (270)	210 (220)	18 (26)
DN150		416	267 (267)	250 (250)	154 (154)	210 (215)	285 (300)	240 (250)	22 (26)



DN25 ~ DN150

## VR

Rotary Valves & Actuators  
(2 way, DN65...150)