

## NTE20S Miniature Motorized Ball Valve



### Features:

- ⊙ Mini dimension suits for small equipment
- ⊙ Patented technology--floating seal structure
- ⊙ Long service life —70000-100000 circles
- ⊙ Low working current, suitable for battery driving
- ⊙ Manual override is safe and convenient
- ⊙ IP67 Enclosure

### Applications:

- ⊙ HVAC
- ⊙ Water treatment
- ⊙ Chemical process
- ⊙ Small equipment for automatic control
- ⊙ Replacing solenoid valve, particularly when solenoid cannot work reliably

### Technical Parameters:

Series	Max Torque	Operating time	Working voltage	Max power	Enclosure	Max pressure	Medium temperature	Ambient temperature	Humidity
NTE20S	2N.M	5-7S	5V	3W	IP67	1.0Mpa	0-100	-20 <t<45	<95%
			12V,24V	4W					
			110V,220V	5W					

### Dimension:

#### Main components

Parts	Material
Actuator housing	ABS
Valve body	brass, 304,316
Valve ball	brass, 304,316
Stem	brass, 304,316
Ball seat	PTFE
Seal/EPDM	

### Full port ball valve connection size

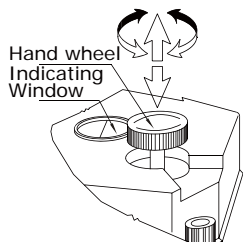
unit: mm

DN	D1/D2	d	L1/L2	L3	F	A	B	C	H3	H2	H1	W(kg)
DN8	G1/4"	8	11	43	17	66.5	54.5	16.3	48	11	74	0.26
DN15	G1/2"	15	13	57	27	66.5	54.5	16.3	48	16.5	77	0.37
DN20	G3/4"	20	16	70	32	66.5	54.5	16.3	48	21.5	81	0.52

### Reduced port ball valve connection size

unit: mm

DN	D1/D2	d	L1/L2	L3	F	A	B	C	H3	H2	H1	W(kg)
DN20	G3/4	15	15	64.5	30	66.5	54.5	16.3	48	16.5	77	0.37
DN25	G1"	20	18	76	38	66.5	54.5	16.3	48	21.5	81	0.52



### Instructions for Manual override:

- ⊙ It is only permitted to use when power is cut.
- ⊙ Lift the hand-wheel, and turn it left or right until the valve is in place.
- ⊙ When the black line on the indicator is horizontal, the valve is on; when vertical, the valve is off.
- ⊙ Press down hand-wheel after using manual override in order to work properly when power is supplied.



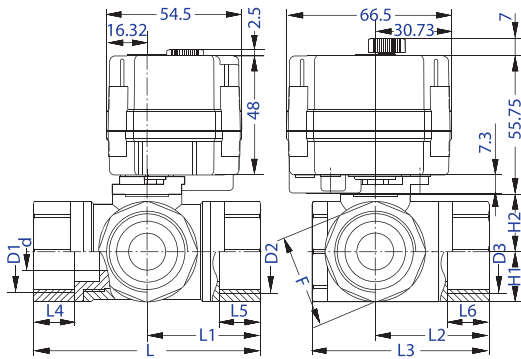
Horizontal type 3-way

Horizontal type 3-way

Unit:mm

DN	d	D1/D2/D3	L1/L2	L3	L4/L5/L6	L	H1	H2	F	W(Kg)
*DN8	6	G1/4"	25	38.5	11.5	50	11	18.25	17	0.26
DN10	8	G3/8"	27.5	44	13	55	13	19.25	20	0.31
DN15	12	G1/2"	33.5	54.5	15	67	17	21.25	27	0.37
DN20	15	G3/4"	38.5	64	15	77	20.3	23.25	31	0.52
DN25	15	G1"	47	72.5	18	94	20.3	23.25	38	0.84

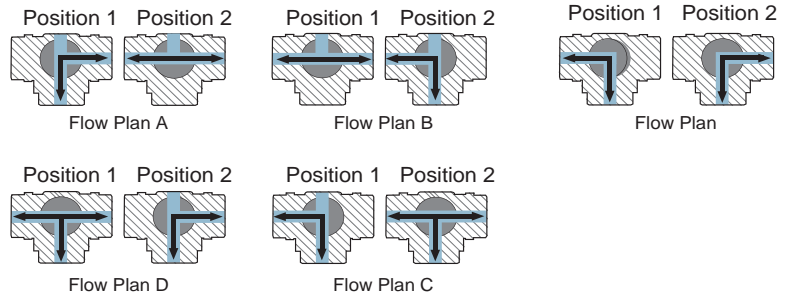
Note: \* Means valves only available to brass material.



NTE-20S Horizontal type 3-way Ball Valve

Horizontal type 3-way T-bore

Horizontal type 3-way L-bore



### Vertical type 3-way

Dimensions

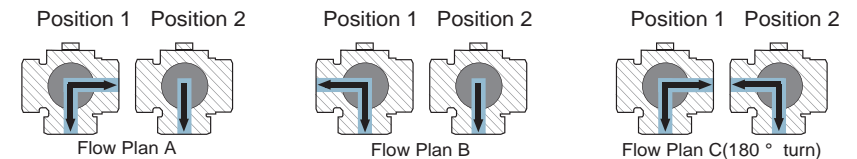
Unit:mm

DN	d	D1/D2/D3	L1/L2/L3	L	H1	H2	F	W(Kg)
DN15	13	G1/2"	13	57	28.5	21.25	27	0.40
DN20	18	G3/4"	16	70	37	25.75	32	0.50
DN25	18	G1"	18	76	44	25.75	38	0.60

Vertical type single L-90° type

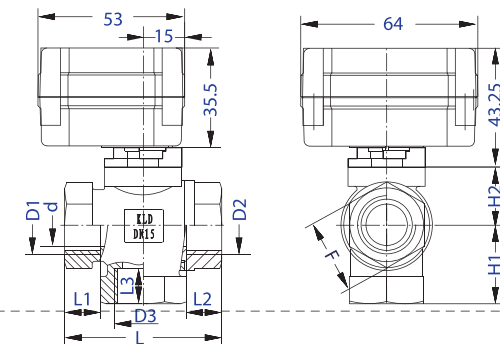
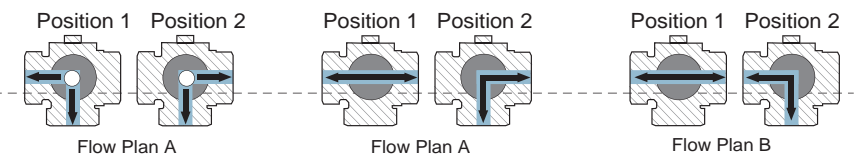


Vertical type 3-way



Vertical type Double L-90° type

Vertical type simple type

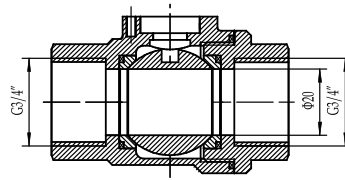


NTE-20S Vertical type 3-way Ball Valve

## 2-Way Brass Full Port Ball Valve (1/4" to 1-1/4")



3/4" full port

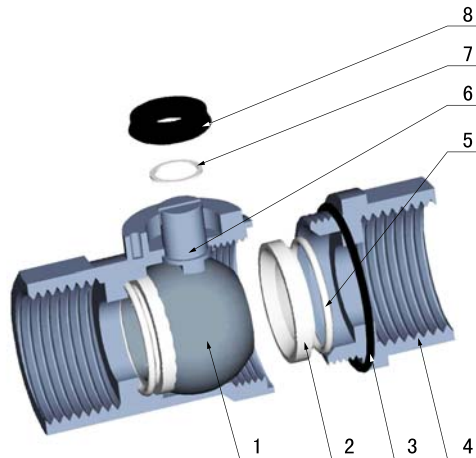


3/4" full port

### Valve Specifications

- \* 1 ⊙ Sizes: 1/4"—1-1/4"
- \* 2 ⊙ Threading: BSP, NPT(female)
  - ⊙ Working pressure: 1.0Mpa
  - ⊙ Max pressure: 1.6Mpa
  - ⊙ Medium temperature: -20°C... +100°C
- \* 3 ⊙ Service: cold or hot water, etc

### Exploded view:



### Components:

NO.	Description	Material	Quantity	
1	Valve Ball	Stainless steel (201)/Brass with chrome plating	1	
2	Ball Seat	PTFE(Teflon)	2	
3	O-ring no.1	NBR	1	
4	Valve Body	Brass with nickel plating	1	
5	O-ring no.2	Silicon rubber	2	
6	Stem	Brass	1	
7	Stem Seat no.1	PTFE	1	
* 4	8	Stem Seat no.2	EPDM	1

\* 1 1/4"—3/4" can match NTE20S Series actuator. 1"—1-1/4" can match NTE100 Series actuator.

\* 2 NPT belongs to customization.

\* 3 Please contact manufacturer whether your working medium is suitable

\* 4 For differen medium, manufacturer will change seal material. For example, specaial seal will be used for drinking water or oil.(FPM. NBR. silicon-rubber is optical)

## NTE 20S Motorized Valve Especially for Ozone Sterilizer and CIOS Generator



### Features:

- ⊙ CPVC+FPM, excellent in resisting corrosion
- ⊙ Mini dimension suits for small equipment
- ⊙ Patented technology—floating seal structure
- ⊙ Long service life—70000 cycles
- ⊙ Low working current
- ⊙ IP67 and F type are available

### Applications:

- ⊙ Used for corrosive medium such as acid and alkali, etc
- ⊙ Replacing solenoid valve, particularly when solenoid valve cannot work reliably
- ⊙ Environment, water treatment system
- ⊙ Small industrial automation equipment
- ⊙ Excellent in ClO<sub>2</sub>, O<sub>3</sub> system

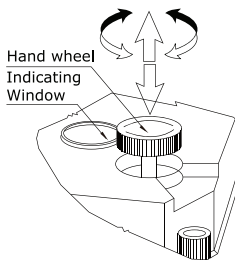
### Technical Parameters:

Series	Working voltage	Max power	Manual override	Max Torque	Operating time	Static current (dc5V)		Enclosure		Max pressure	Medium temperature	Ambient temperature	Humidity
NTE20S	DC5V,AC/DC12V	3W	available	2N.M	5-7S	IP67 0-15mA	F type <65mA	IP67	F type	1.0Mpa	0-90℃	-20℃<t<45℃	<95%
	AC/DC24V	4W											
	AC95-265V	5W											

### Dimension:

Main components	
Parts	Material
Valve body	CPVC
Valve ball	CPVC
Stem	CPVC
Ball seat	PTFE
Seal	FPM

Notes:  
 1. Size can be changed to 1/2" and 3/4".  
 2. Manual override can be taken out. The dimension is the same, just without manual wheel.



### Instructions for Manual override:

- ⊙ It is only permitted to use when power is cut.
- ⊙ Lift the hand-wheel, and turn it left or right until the valve is in place.
- ⊙ When the black line on the indicator is horizontal, the valve is on; when vertical, the valve is off.
- ⊙ Press down hand-wheel after using manual override in order to work properly when power is supplied.

### Wring:

**B2, B3 and BD3 are available. We can accept feedback customization. Please contact sales for more details.**

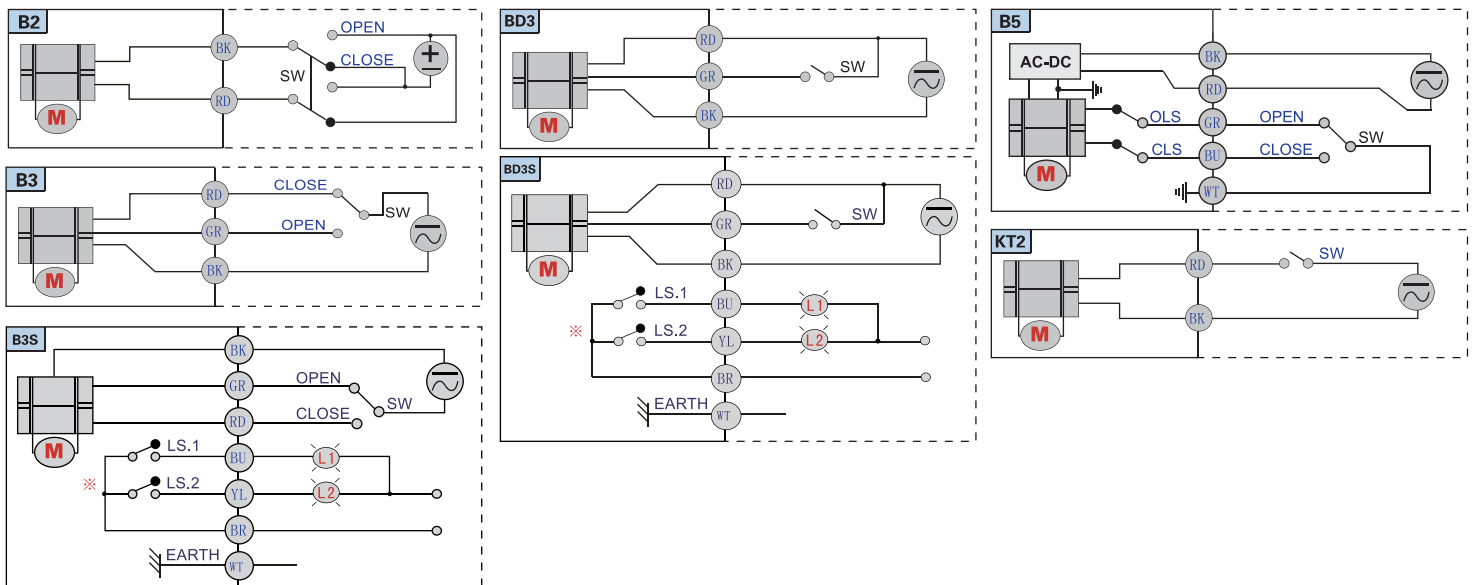
- ⊙ The service life is the testing data in the condition of 1.0Mpa, 200L/h, tap water as working medium. Different working occasions will influence the service life.
- ⊙ Manual shaft and hand-wheel will be replaced by another upper cover if manual override function is not needed.
- ⊙ Actuators are not direct-mount-on. Actuators are not recommended to be sold separately.

2008/03 subject to technical changes

### Product Guide

Material	Size	Voltage(Power Supply) vs Control Type								Thread Type			Bore Size	
		5 VDC	12 VAC	12 VDC	24 VAC	24 VDC	110 VAC	110 VDC	95-265 VAC	BSPP	BSPT	NPT	Full Bore	Reduced Bore
Brass	DN8(1/4")	B2	B5	B2	B3	B3	B3	B3	B3	X	X	X	√	X
	DN15(1/2")									√	√	√	√	√
	DN20(3/4")									√	√	√	√	√
	DN25(1")									√	√	X	X	√
304SS	DN8(1/4")	B3	BD3	B5	B5	B5	B5	B5	B5	X	X	X	X	X
	DN15(1/2")	BD3	KT2	BD3	BD3	BD3	BD3	BD3	BD3	√	X	√	√	√
	DN20(3/4")			KT2	KT2	KT2	KT2	KT2	KT2	√	X	√	√	√
	DN25(1")									√	X	√	X	√
316SS	DN8(1/4")									√	X	X	√	√
	DN15(1/2")									√	X	√	√	√
	DN20(3/4")									√	X	√	√	√
	DN25(1")									√	X	√	X	√

### The Control Type as the following:



<b>Order Information</b>	<b>Basic Model</b>	<b>Size</b>	<b>Material</b>	<b>Voltage</b>	<b>Control Type</b>
	NTE-20S	DN8	304SS	24VDC	B5

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