

## 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

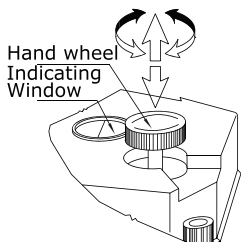
unit: mm

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.



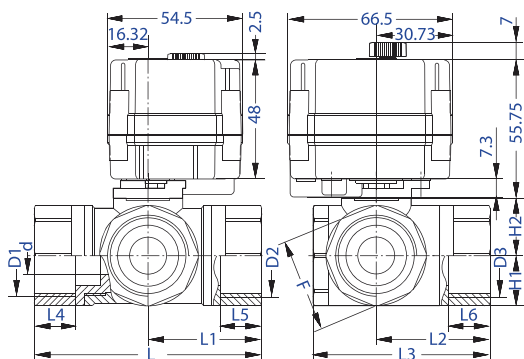
Horizontal type 3-way

### 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

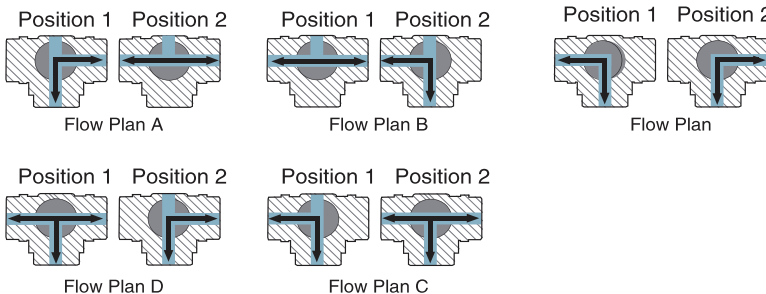
Note: \* Means valves only available to brass material.



NTE-20S Horizontal type 3-way Ball Valve

### Horizontal type 3-way T-bore

### Horizontal type 3-way L-bore



Vertical type 3-way

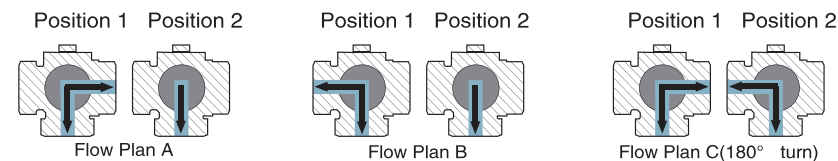
### Vertical type 3-way

#### Dimensions

Unit:mm

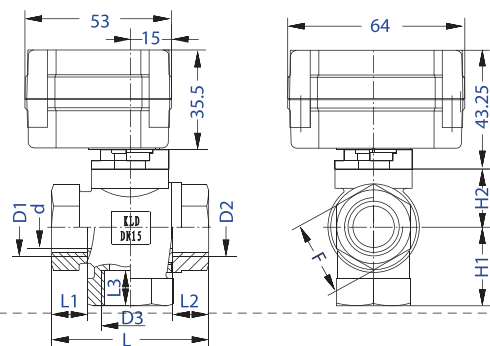
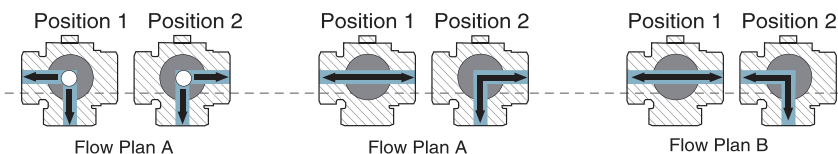
DN	d	D1/D2/D3	L1/L2/L3	L	H1	H2	F	W(Kg)
DN15	13	G1/2"	13	57	28.5	21.25	27	0.40
DN20	18	G3/4"	16	70	37	25.75	32	0.50
DN25	18	G1"	18	76	44	25.75	38	0.60

### Vertical type single L-90° type



### Vertical type Double L-90° type

### Vertical type simple type

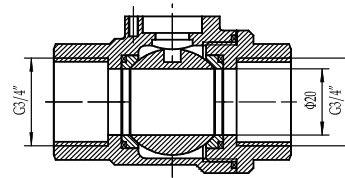


NTE-20S Vertical type 3-way Ball Valve

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



3/4" full port

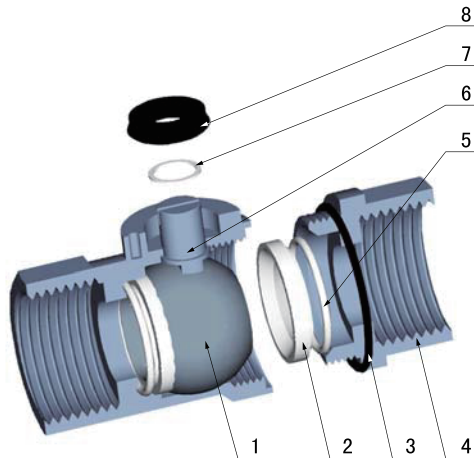


3/4" full port

### 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 (CPVC) 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

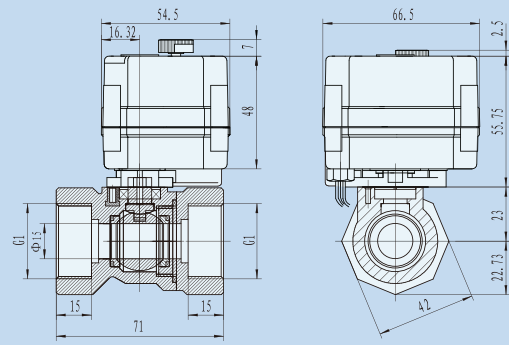
### Applications:

- ⊙ 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:

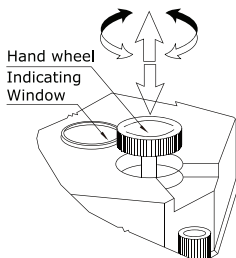
Series	Working voltage	Max power	Manual override	Max Torque	Operating time	Static current (dc5V)		Enclosure		Max pressure	Medium temperature	Ambient temperature	Humidity
NTE20S	DC5V,AC/DC12V	3W	available	2N.M	5-7S	IP67 0-15mA	F type <65mA	IP67	F type	1.0Mpa	0-90℃	-20℃<t<45℃	<95%
	AC/DC24V	4W								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

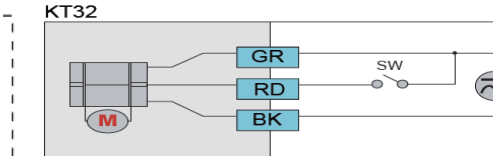
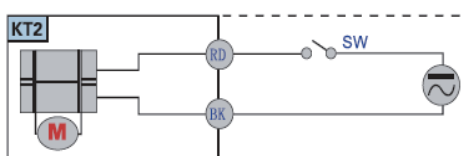
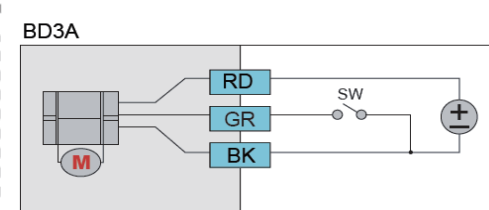
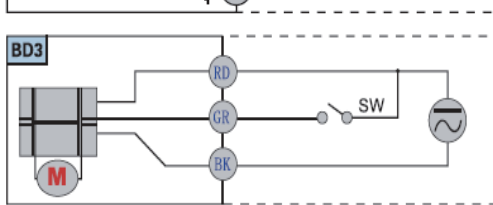
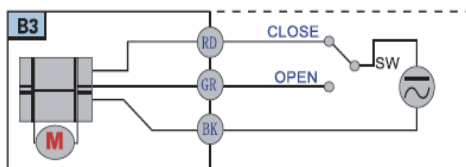
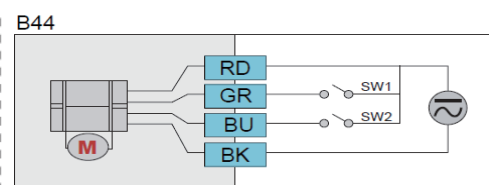
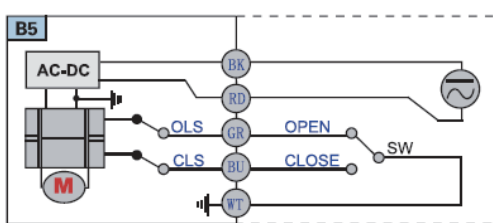
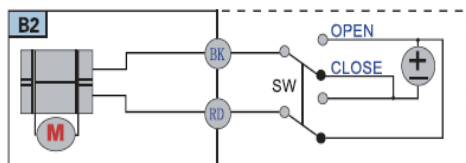
- ⊙ The service life is the testing data in the condition of 1.0Mpa, 200L/h, tap water as working medium. Different working occasions will influence the service life.
- ⊙ Manual shaft and hand-wheel will be replaced by another upper cover if manual override function is not needed.
- ⊙ Actuators are not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

2008/03 subject to technical changes

### Product Guide

Valve Si	Valve Material	Thread Type				Bore Size		Voltage(power supply) vs Control Type					
		BSP	BSPT	NPT	Socket	Full Bore	Reduced Bore	DC5V	DC12V	AC/DC 12V	AC/DC 24V	AC/DC 220V	AC/DC 95~265V
DN8(1/4")	304SS	✓	✓	✓	x	✓	x						
DN10(3/8")		✓	✓	✓	x	✓	x						
DN15(1/2")		✓	✓	✓	x	✓	x						
DN20(3/4")		✓	✓	✓	x	✓	✓						
DN25(1")		✓	✓	✓	x	x	✓						
DN10(3/8")	316SS	✓	✓	✓	x	✓	x	B2 B3 B5 BD3 B44 BD3A KT2 KT32	B2 B3 B5 BD3 B44 BD3A KT2 KT32	B3 B5 BD3 B44 BD3A KT2 KT32	B3 B5 BD3 B44 BD3A KT2 KT32	B3 B5 BD3 B44 BD3A KT2 KT32	B3 B5 BD3 B44 BD3A KT2 KT32
DN15(1/2")		✓	✓	✓	x	✓	x						
DN20(3/4")		✓	✓	✓	x	✓	✓						
DN25(1")		✓	✓	✓	x	x	✓						
DN8(1/4")	Brass	✓	✓	✓	x	✓	x						
DN10(3/8")		✓	✓	✓	x	✓	x						
DN15(1/2")		✓	✓	✓	x	✓	x						
DN20(3/4")		✓	✓	✓	x	✓	✓						
DN25(1")		✓	✓	✓	x	x	✓						
DN15(1/2")	CPVC	✓	✓	✓	✓	x	✓						
DN20(3/4")		✓	✓	✓	✓	x	✓						
DN25(1")		✓	✓	✓	x	x	✓						

The Control Type as the following:



**Order Information**

**Basic Model**

**Size**

**Material**

**Voltage**

**Control Type**

NTE-20S

DN8

304SS

24VDC

B5

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