

[www.niceautomations.com](http://www.niceautomations.com)



# Nice

Automation

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NINGBO NICE AUTOMATION COMPANY

A photograph of a multi-story industrial building with a light-colored facade. The word "Nice" is prominently displayed in blue on the upper part of the building. There are several windows, some with air conditioning units. In front of the building, there are flagpoles with a blue flag, the Chinese national flag, and another blue flag. A red banner is visible at the bottom left of the building.

# Nice

## About Nice Automation

Nice Automation is an expert in manufacturing automation control components for the pneumatic and fluid field. We provide our customers with nice pneumatic and fluid solutions, components, and services.

We pursue the quality of top international famous brands, use the cost of Made in China, obtain the ultimate cost performance, and help customers win the market.

In the field of end-user applications, we provide the best personalized solutions and product portfolios to help users automate the production process, maximize production efficiency, and minimize production costs.

### Main business:

- NCM series miniature solenoid valve
- NCSY series pneumatic solenoid valve (5/2, 5/3 way)
- NCSV series pneumatic solenoid valve (5/2, 5/3 way)
- NCB series multiple-purpose solenoid valve (2/2, 3/2 way)
- NCJ series angle seat valve
- NCP series drain valve

### Applications:

NICE AUTOMATION serves customers in many mainstream industries, including industrial automation, textile machinery, medical equipment, electronics, food and beverage, rail and public transportation, automotive, agriculture, etc.

### Markets:

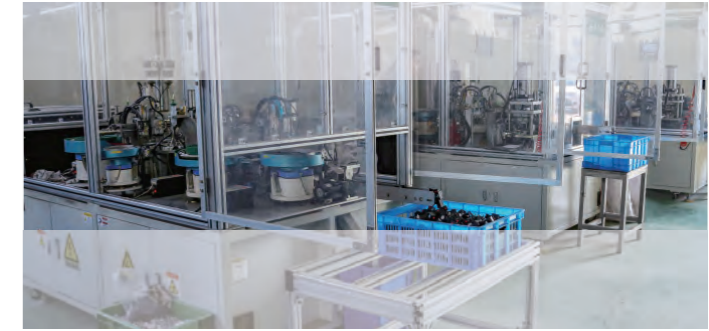
Our customers are in more than 20 countries in the world, including Germany, Italy, the United Kingdom, France, the Netherlands, the Czech Republic, Poland, Russia, the United States, Canada, Turkey, the United Arab Emirates, South Korea, Thailand, Vietnam, Brazil, New Zealand, Australia and the domestic market.

Nice automation provides you with nice flow control, we look forward to opening close cooperation with you as soon as possible.



## Automatic assembly line

The core components of the Nice solenoid valve are assembled using a fully automated assembly line to avoid human error, uniform quality, and very high production efficiency, which can guarantee timely delivery of orders.



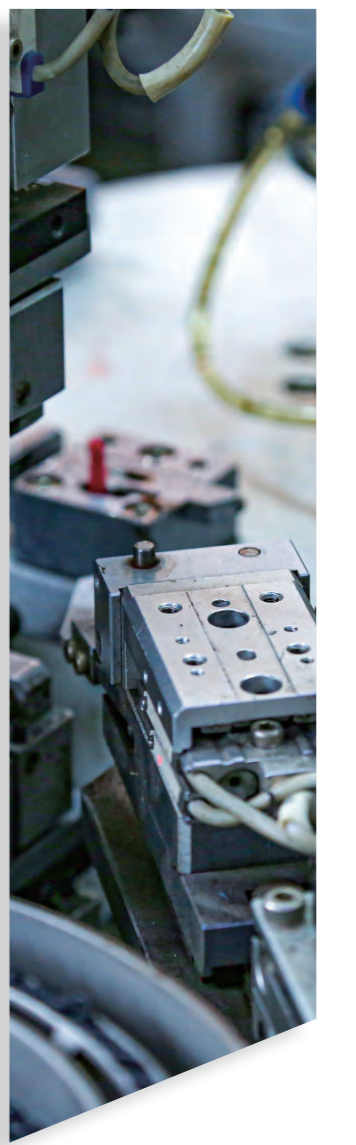
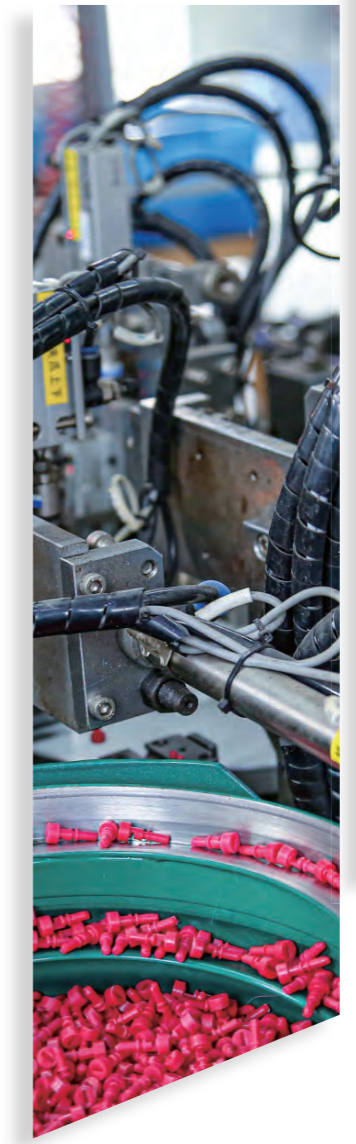
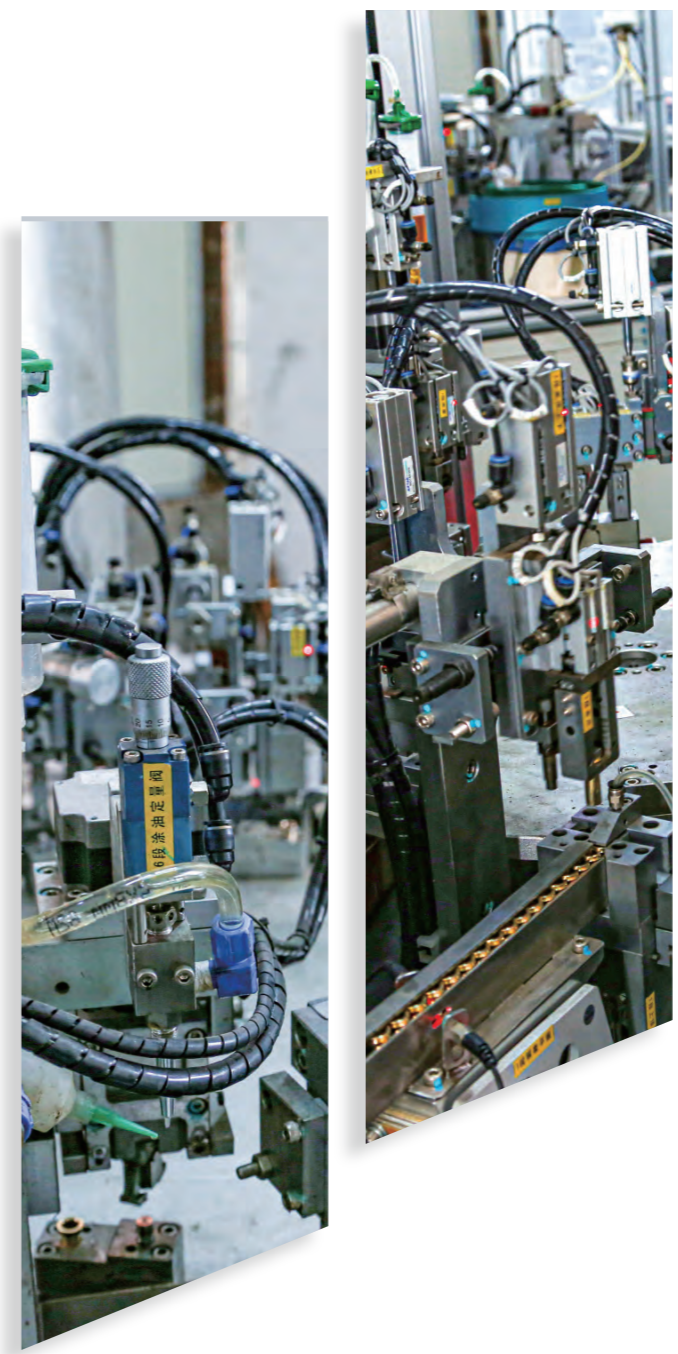
## PRECISION MANUFACTURING



## Precision Manufacturing

NICE AUTOMATION has multiple CNC precision automatic lathes and machining centers with a machining accuracy of up to 0.005mm, which can well control the dimensional tolerance of the product, thereby ensuring reliable operation and stable performance.

In addition, the main material of the Nice solenoid valve is high-permeability soft magnetic alloy and durable engineering plastics, guaranteeing that each delivered product is of high quality.





## Quality Assurance

"Winning on quality" is the product quality objective pursued by the entire Nice team. We have strictly controlled every process, from the selection of raw materials to the control of the production process, to the testing of finished products. Any product must be 100% comprehensive detection before leaving the factory.



## MINIATURE SOLENOID VALVE



### NCM Series 10mm Miniature Solenoid Valve

#### Low power consumption

Standard power 1.2W, direct controlled by PLC.

#### Long service life

Up to 50 million times, high reliability

#### Terminal

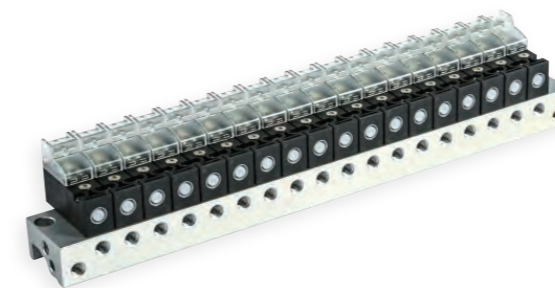
Horizontal and vertical insertion can switch freely.

#### The most compact design

Valve body width 10mm

#### Multiple uses

Often use as the pilot valve, or control of the single mini acting cylinder, or integrate with the manifold to form valve group.



#### Applications

- Textile
- Industrial Automation
- Electronics & Semiconductor
- Medical Sector

## NCM Series 10mm Miniature Solenoid Valve

### Specification

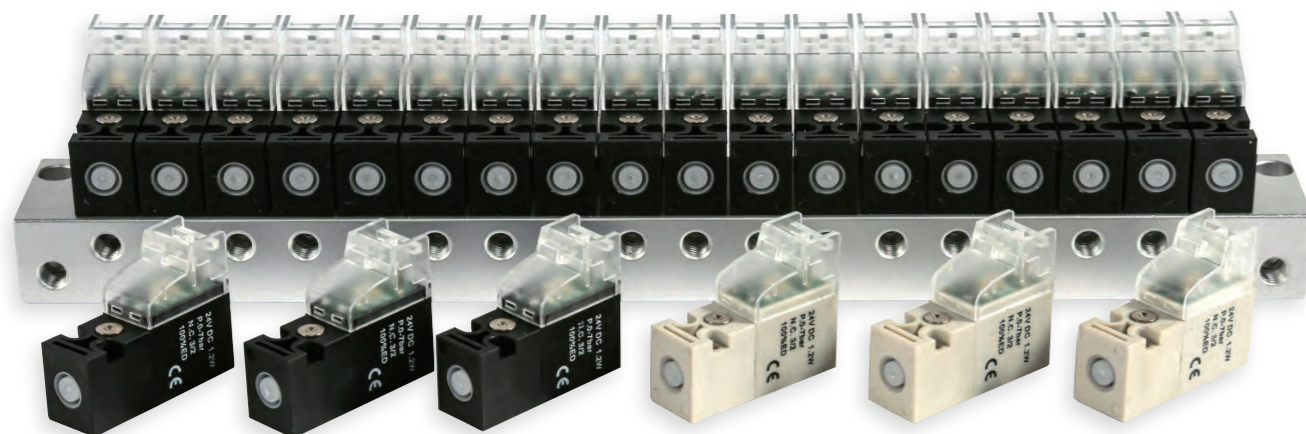
Valve Function	3/2 ; 2/2
Medium	Compressor Air (To be filtered by 40um filter element)
Working Type	Direct action
Orifice Size	0.7mm
Flow Rate(@6bar)	>14L/min
Working Pressure	0-7bar
On/Off Response time	< 8 ms
Max.Cycling time	> 30Hz
Working life	> 50 Million
Fixing screw	M1.7
Duty cycle	ED 100%
Ambient temperature	-5 ~ +50 °C (No freezing)
Power	1.2W/1.5VA
Voltage	DC:12V,24V / AC:110V,220V(Others on request)
Voltage range	DC:±10% / AC:-10% ~ +15%
Degree of Protection	Dust Proof
Insulation class	H class



### Ordering Code

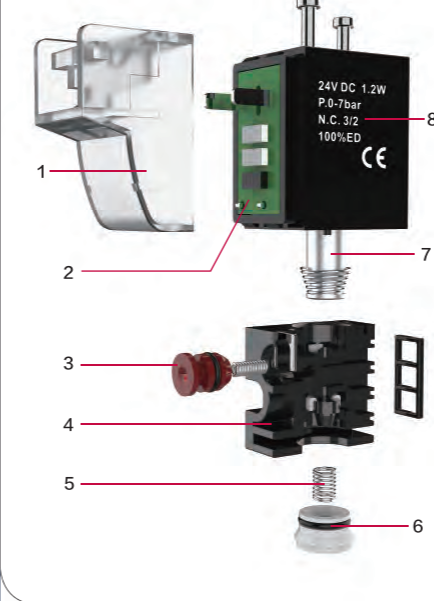
<b>NCM</b>	-	<b>10</b>	-	<b>0</b>	-	<b>B</b>	-	<b>L</b>	-	<b>050</b>	-	<b>F</b>
Miniature Solenoid Valve		Model No. 10:10mm		Valve type 0:3/2 NC 1:3/2 NO 2:2/2 NC 3:2/2 NO		Volatge A:DC12V B:DC24V C:AC110V D:AC220V		Electrical entry G:General L:Vertical M:Horizontal F:Flying lead		Wire length Blank:Without wire 050:500mm Available for other lengths		Manifold Blank:No 1F:1F 2F:2F 3F:3F Available for others

### Manifold



## NCM Series 10mm Miniature Solenoid Valve

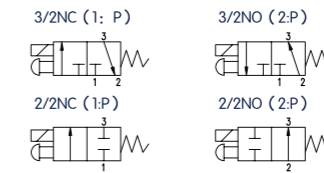
### Structure



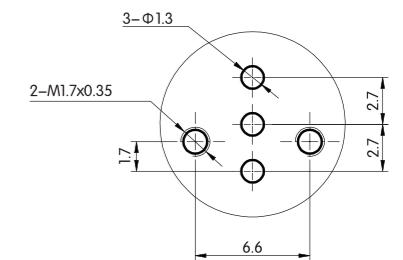
### Main Components

- |                        |  |
|------------------------|--|
| 1.Cover                | ★ Perspective type resin   |
| 2.PCB board            | ★ high stability design  |
| 3.Manual override      | ★ durable POM  |
| 4.Body                 | ★ High Strength PBT  |
| 5.Spring               | ★ High Toughness Stainless Steel   |
| 6.Sealing ring         | ★ Anti-deformation rubber  |
| 7.Iron Core Components | ★ High Permeability Soft Magnetic Alloy  |
| 8.Coil                 | ★ Enameled copper wire, 180°C ELEKTRISOLA, conforming to IEC 60317-51; the frame uses high heat resistance PPS |

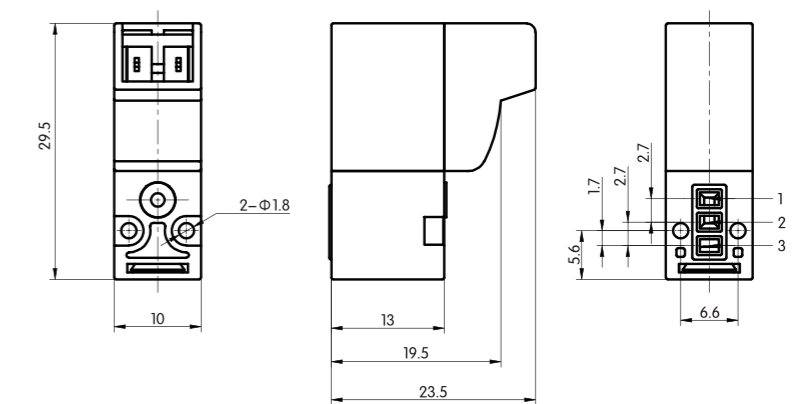
### Function symbols



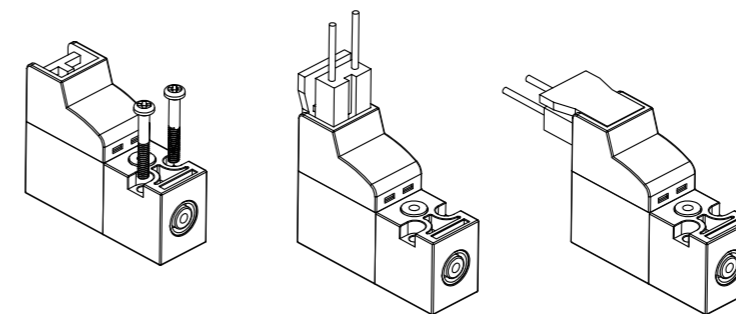
### Hole location installation drawing



### Dimensions



### Assembly and Usage



#### 1.Valve body installation method

Use two M1.7X13 bolts and tighten them with a torque of 0.1 ~ 0.15N.m to fix the valve body.

#### 2.Terminal wire insertion method

The vertical plug-in type and parallel plug-in type common terminal block can be inserted into the terminal wire according to the actual needs.

Note: There is no polarity difference between positive and negative terminals.

#### 3.Other notes

Do not use the AC coil in series with other equipment

# LOW POWER DIRECTIONAL CONTROL VALVE

## NCSY Series 5/2,5/3 Way Solenoid Valve

### Low power consumption

Standard power 1.2W

### Large flow Rate

The maximum flow rate can drive cylinder up to  $\phi 80$

### Long service life

Up to 50million times , high reliability

### Inner exhaust structure

Collect the pilot airflow and exhaust intensively from R, S ports

### Terminal

Horizontal and Vertical insertion can switch freely

### Small size, can integrate manifold to form valve group

Save installation space; multiple pipe connection methods are available

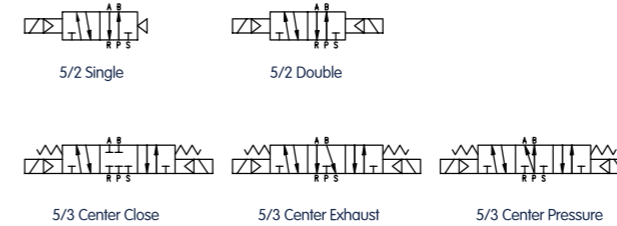
### Applications

- Textile
- Industrial Automation
- Electronics & Semiconductor
- Medical Sector



## NCSY Series 5/2,5/3 Way Solenoid Valve

### Function symbol



### Ordering Code

<b>NCSY</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>20</b>	<b>-</b>	<b>06</b>	<b>-</b>	<b>B</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>050</b>
5/2,5/3 Way Solenoid valve		Model Code		Valve Type		Port Type		Port Size		Volatge		Electrical Entry		Wire Length
		3:3000 5:5000 7:7000		1: Single Solenoid (5/2 Way) 2: Double Solenoid (5/2 Way) 3: Double Solenoid (5/3 Way Closed Center) 4: Double Solenoid (5/3 Way Exhaust Center) 5: Double Solenoid (5/3 Way Pressure Center)		20: Thread Type 30: Tube Type 40: Namur Type		M5:M5 x 0.8 06:G1/8" 08:G1/4" C4: $\phi$ 4mm C6: $\phi$ 6mm C4: $\phi$ 4mm C6: $\phi$ 6mm C8: $\phi$ 8mm C6: $\phi$ 6mm C8: $\phi$ 8mm C10: $\phi$ 10mm		A:DC12V B:DC24V C:AC110V D:AC220V		G:General L:Vertical M:Horizontal F:Flying lead		Blank: Without wire 050: 500mm Available for other lengths

### Coil Specification

Voltage	Voltage range	Power	IP grade	Insulation class	Electrical entry
DC12V	±10%	1.2W	Dust proof	H class	Terminal
DC24V					
AC110V	-10% ~ +15%	1.5VA			
AC220V					

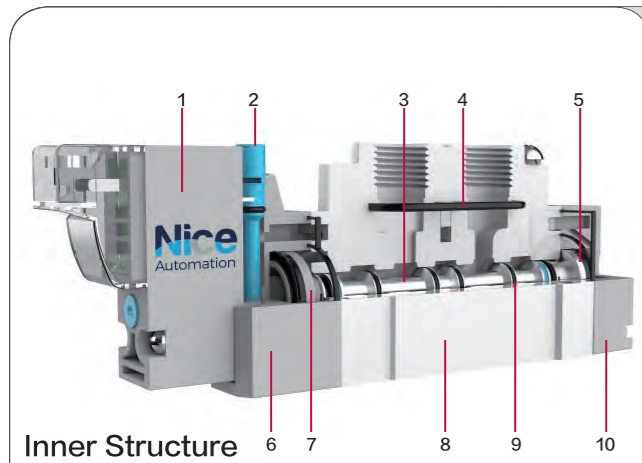
### Specification

Model		NCSY-3000	NCSY-5000	NCSY-7000
Port size	Thread type Note 1	In=Out=Exhaust=M5	In=Out=Exhaust=1/8"	In=Out= 1/4" Exhaust=1/8"
	Tube type	A=B= $\phi$ 4 or $\phi$ 6	A=B= $\phi$ 4 or $\phi$ 6 or $\phi$ 8	A=B= $\phi$ 6 or $\phi$ 8 or $\phi$ 10
Orifice size(Cv value)		3.6mm <sup>2</sup> (Cv0.25)	9.0mm <sup>2</sup> (Cv0.55)	16.2mm <sup>2</sup> (Cv0.9)
Fluid Air, Inert gas( to be filtered by 40 $\mu$ m filter element)				
Acting Pilot				
Manual operation Push-type with self-locking function				
Operating Pressure	Single solenoid(5/2 Way)	0.15-0.7MPa(21-101psi)		
	Double solenoid(5/2 Way)	0.15-0.7MPa(21-100psi)		
	Double solenoid(5/3 Way)	0.2-0.7MPa(29-101psi)		
Max. working pressure		1.2MPa(175psi)		
Working temperature (Note 2)		-20~70 °C (No freezing)		
Material of body		Aluminum die casting		
Lubrication		Not required		
Exhaust type of pilot valve		Main valve and pilot valve is centralized exhaust		
Max.frequency	3 positions	3Hz	3Hz	3Hz
	Others	10Hz	5Hz	5Hz

Note:

- 1.PT,NPT thread and G thread are available.
- 2.Be sure to use measures to prevent condensation and freezing in a low temperature environment below 3°C .
- 3.The maximum actuation frequency is in the no-load state.

## NCSY Series 5/2,5/3 Way Solenoid Valve

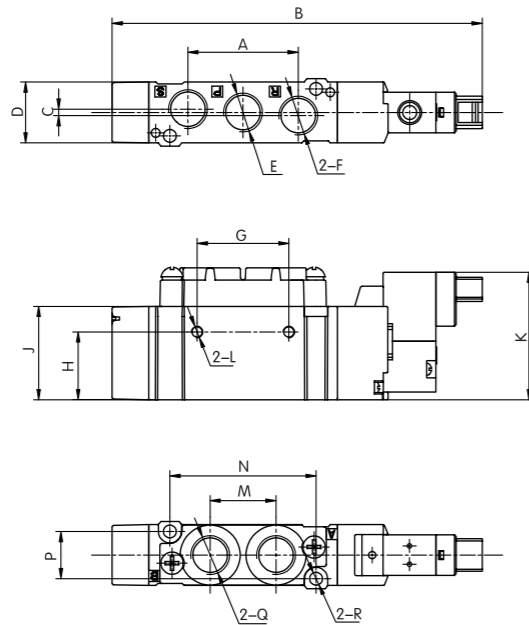


### Main Components

- |                    |   |
|--------------------|---|
| 1. Pilot Valve     | ★ High sensitivity structure, low power consumption |
| 2. Manual Override | ★ Durable POM, high reliability                     |
| 3. Spool           | ★ High Precision aluminum alloy                     |
| 4. Seal            | ★ Ant Deformation rubber                            |
| 5. Small Piston    | ★ Anti-deformation resin                            |
| 6. Front Cover     | ★ High-strength PBT                                 |
| 7. Large Piston    | ★ Anti-deformation resin                            |
| 8. Valve Body      | ★ Non-porous precision die-cast aluminum alloy      |
| 9. C-Ring          | ★ High abrasion resistant rubber                    |
| 10. Back Cover     | ★ High strength PBT                                 |

Inner Structure

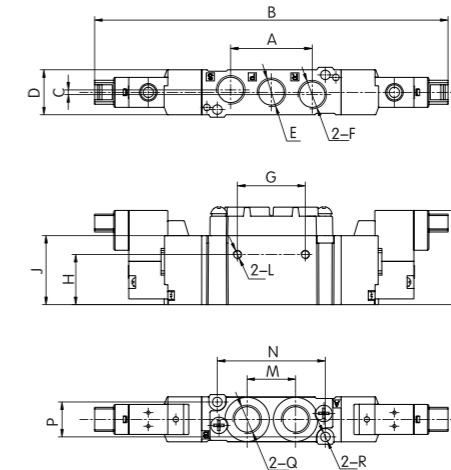
### Dimensions 2-position single coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
NCSY3120	19	72.3	2	10	M5	M5	9.5	4	18.5	31.1	M3	10.2	21.4	8.6	M5	φ2.2
NCSY5120	27.2	90.4	1.6	15	G1/8	G1/8	22.6	16.7	23	30.6	M3	16.2	36	11.6	G1/8	φ3.2
NCSY7120	36	105.6	2	18	G1/4	G1/8	20	7	28	36	M4	20	42	13.6	G1/4	φ4.2

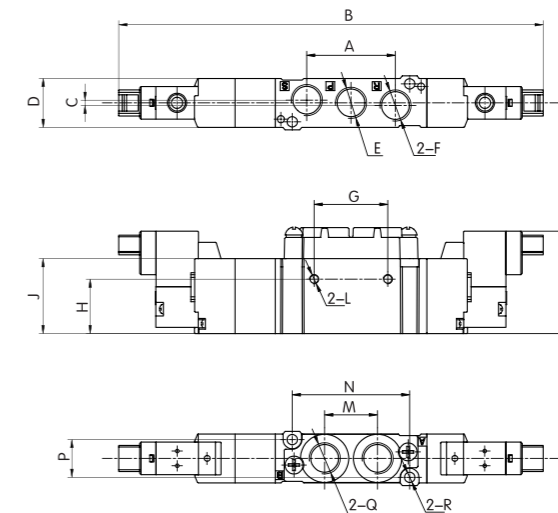
## NCSY Series 5/2,5/3 Way Solenoid Valve

### Dimensions 2-position double coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
NCSY3220	19	99.6	2	10	M5	M5	9.5	4	18.5	31.1	M3	10.2	21.4	8.6	M5	φ2.2
NCSY5220	27.2	116.2	1.6	15	G1/8	G1/8	22.6	16.7	23	30.6	M3	16.2	36	11.6	G1/8	φ3.2
NCSY7220	36	132.8	2	18	G1/4	G1/8	20	7	28	36	M4	20	42	13.6	G1/4	φ4.2

### Dimensions 3-position double coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
NCSY3320	19	108.1	2	10	M5	M5	9.5	4	18.5	31.1	M3	10.2	21.4	8.6	M5	φ2.2
NCSY3420																
NCSY3520																
NCSY5320	27.2	128.5	1.6	15	G1/8	G1/8	22.6	16.7	23	30.6	M3	16.2	36	11.6	G1/8	φ3.2
NCSY5420																
NCSY5520																
NCSY7320	36	145.8	2	18	G1/4	G1/8	20	7	28	36	M4	20	42	13.6	G1/4	φ4.2
NCSY7420																
NCSY7520																

## NCSY Series Manifold



### Features

- The same series of valves can be integrated into the valve group, saving space and cost.
- unified inlet / exhaust, unified wiring, easy to find in case of failure
- The number of connected valves can be arbitrarily combined or expanded

### Ordering Code

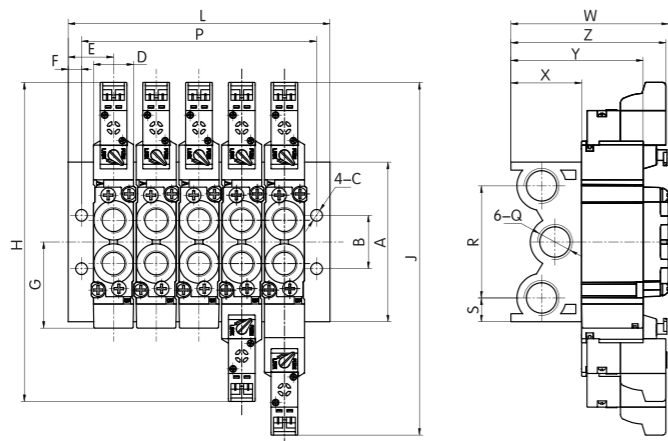
#### Manifold

NCSY	-	3000M	-	2F	-	G
Series code		Model		Number of Stations		Thread Type
		3000M:3000 series manifold 5000M:5000 series manifold 7000M:7000 series manifold		1: 1F 2: 2F 3: 3F ..... 20: 20F		Blank:PT thread G:G thread T:NPT thread

#### Blank plate

NCSY	-	3000M	-	B
Series code		Model		Code
		3000M:3000 series manifold 5000M:5000 series manifold 7000M:7000 series manifold		B:Blank plate for manifold

### Dimensions



Models	A	B	C	D	E	F	G	H	J	R	S	Q	W	X	Y	Z
NCSY3000M	49	16	φ4.5	10	14.8	4.75	22.5	102	111	33	7	RC1/8	43.5	20	38.5	51.1
NCSY5000M	60	20	φ4.5	15	17	5	32.3	120	132	42	9	RC1/4	59	26.5	49.5	58
NCSY7000M	60	21	φ4.5	18	18	4.5	39.4	129	142	42	9	RC1/4	66.5	26.5	54.5	61.3

Models	L																			
	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F	
NCSY3000M	40	50.5	61	71.5	82	92.5	103	114	124	135	145	156	166	177	187	198	208	219	229	
NCSY5000M	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338	
NCSY7000M	55	74	93	112	131	150	169	188	207	226	245	264	283	302	321	340	359	378	397	

Models	P																			
	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F	
NCSY3000M	30.5	41	51.5	62	72.5	83	93.5	104	115	125	136	146	157	167	178	188	199	209	220	
NCSY5000M	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328	
NCSY7000M	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388	

## LOW POWER DIRECTIONAL CONTROL VALVE

### NC5V Series 5/2,5/3 Way Solenoid Valve

#### Low starting pressure

Reset by compressed air,  
starting pressure < 0.5bar

#### Low power consumption

Standard power 1.2W

#### Long service life

Up to 30million times, high reliability

#### Spool structure

Good tightness and sensitive reaction,  
lubrication not required

#### Terminal

Horizontal and vertical insertion can switch freely

#### Small size, can be integrated with the manifold.

Save installation space

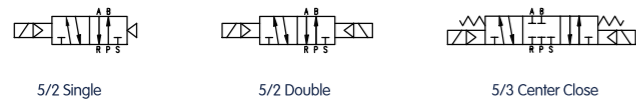
#### Applications:

- Textile
- Industrial Automation
- Electronics & Semiconductor
- Medical Sector



## NC5V Series Low Power Solenoid Valve

### Function symbols



### Ordering Code

<b>NC5V</b>	<b>- 1 -</b>	<b>10</b>	<b>- 06</b>	<b>- B -</b>	<b>M -</b>	<b>050</b>
5/2,5/3 Solenoid Valve	Model 1: 100 2: 200	Valve Type 10:Single Solenoid(5/2 Way) 20:Double Solenoid(5/2 Way) 30C:Double Solenoid (5/3 Way Closed Center) 30E:Double Solenoid (5/3 Way Exhaust Center) 30P:Double Solenoid (5/3 Way Pressure Center)	Port size M5:M5 × 0.8 06:G1/8" 06:G1/8" 08:G1/4" 100 Series 200 Series	Volatge A:DC12V B:DC24V C:AC110V D:AC220V	Electrical entry G:General L:Vertical M:Horizontal F:Flying lead	Wire length Blank: Without wire 050: 500mm Available for other lengths

### Coil Specification

Voltage	Voltage range	Power	IP grade	Insulation class	Electrical entry
AC12V/DC12V	±10%	1.2W	Dust proof	H class	Terminal
AC24V/DC24V					
AC110V	-10%~+15%	1.5VA			
AC220V					

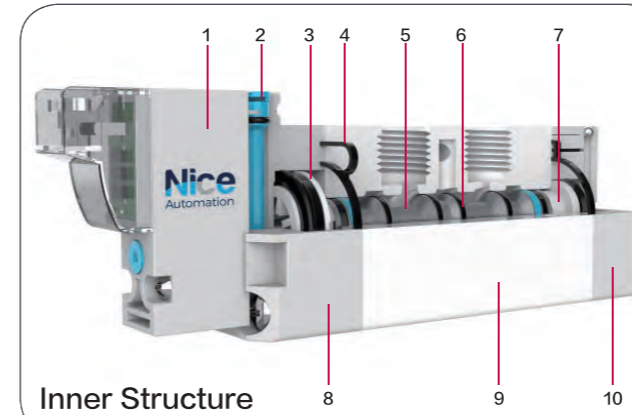
### Specification

Models	NC5V-110-M5	NC5V-120-M5	NC5V-130 □ -M5	NC5V-110-06	NC5V-120-06	NC5V-130 □ -06
Position number	5 port 2 position		5 port 3 position	5 port 2 position		5 port 3 position
Orifice size	5.5mm <sup>2</sup> (Cv=0.31)		5.0mm <sup>2</sup> (Cv=0.28)	12.0mm <sup>2</sup> (Cv=0.67)		9.0mm <sup>2</sup> (Cv=0.50)
Port size	Inlet=Outlet=Exhaust=M5			Inlet=Outlet=Exhaust=G1/8"		
Models	NC5V-210-06	NC5V-220-06	NC5V-230 □ -06	NC5V-210-08	NC5V-220-08	NC5V-230 □ -08
Position number	5 port 2 position		5 port 3 position	5 port 2 position		5 port 3 position
Orifice size	14.0mm <sup>2</sup> (Cv=0.78)		12.0mm <sup>2</sup> (Cv=0.67)	16.0mm <sup>2</sup> (Cv=0.89)		12.0mm <sup>2</sup> (Cv=0.67)
Port size	Inlet=Outlet=Exhaust=G1/8"			Inlet=Outlet=G1/4" Exhaust=G1/8"		
Working medium	Air (to be filtered by 40 μm filter element)					
Acting	Inner Pilot					
Working pressure	0.15~0.8MPa(21~114psi)					
Max.Pressure Resistance	1.2MPa(175psi)					
Operating Temperature	-20~70 °C ( no freezing )					
Material of body	Aluminum					
Lubrication	Not required					
Max.frequency	10 cycles/sec.					

Note:

- 1.PT,NPT thread and G thread are available.
- 2.Be sure to use measures to prevent condensation and freezing in a low temperature environment below 3°C .
- 3.The maximum actuation frequency is in the no-load state.

## NC5V Series Low Power Solenoid Valve

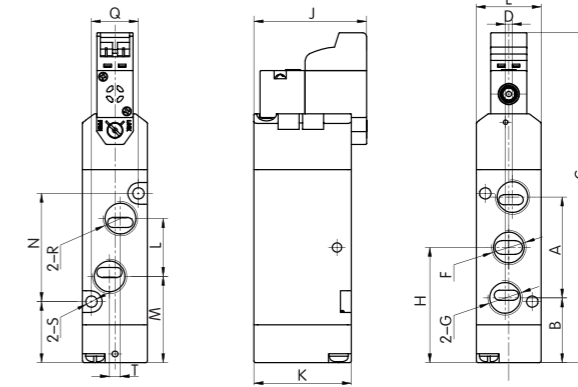


### Main Components

- |                   |   |
|-------------------|---|
| 1.Pilot Valve     | ★ High sensitivity structure, low power consumption |
| 2.Manual Override | ★ Durable POM, high reliability                     |
| 3. Large Piston   | ★ Anti-deformation resin                            |
| 4.Seal            | ★ Ant Deformation rubber                            |
| 5.Spool           | ★ High Precision aluminum alloy                     |
| 6.C-Ring          | ★ High wear-resistant rubber                        |
| 7.Small Piston    | ★ Anti-deformation resin                            |
| 8.Front Cover     | ★ High-strength PBT                                 |
| 9.Valve Body      | ★ Non-porous precision die-cast aluminum alloy      |
| 10.Back Cover     | ★ High strength PBT                                 |

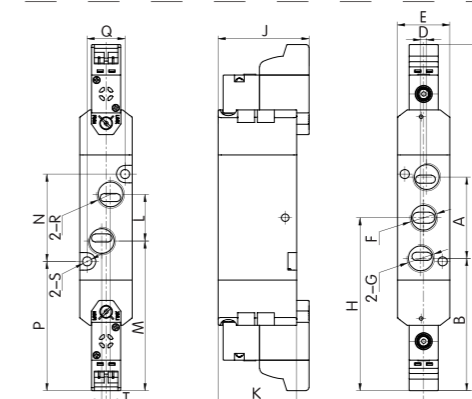
### Inner Structure

### Dimensions 5 port 2 position single coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
NC5V110-M5	27	18.5	91.5	0	18	M5	M5	32	31.2	27	14	25	30	17	13	M5	φ3.3	0
NC5V110-06	28	18	91.5	2	18	PT1/8	PT1/8	32	31.2	27	16	24	30	17	13	PT1/8	φ3.3	3
NC5V210-06	36	18	101	0	22	PT1/8	PT1/8	36	35.7	35	18	27	38	17	17	PT1/8	φ3.3	0
NC5V210-08	36	18	101	0	22	PT1/4	PT1/8	36	35.7	35	21	25.5	38	17	17	PT1/4	φ3.3	3

### Dimensions 5 port 2 position double coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
NC5V120-M5	27	46	119	0	18	M5	M5	59.5	31.2	27	14	52.5	30	44.5	13	M5	φ3.3	0
NC5V120-06	28	45.5	119	2	18	PT1/8	PT1/8	59.5	31.2	27	16	51.5	30	44.5	13	PT1/8	φ3.3	3
NC5V220-06	36	47	130	0	22	PT1/8	PT1/8	65	35.7	35	18	56	38	46	17	PT1/8	φ3.3	0
NC5V220-08	36	47	130	0	22	PT1/4	PT1/8	65	35.7	35	21	54.5	38	46	17	PT1/4	φ3.3	3

## NC5V Series Manifold



### Features

- The same series of valves can be integrated into the valve group, saving space and cost.
- unified inlet / exhaust, unified wiring, easy to find in case of failure
- The number of connected valves can be arbitrarily combined or expanded

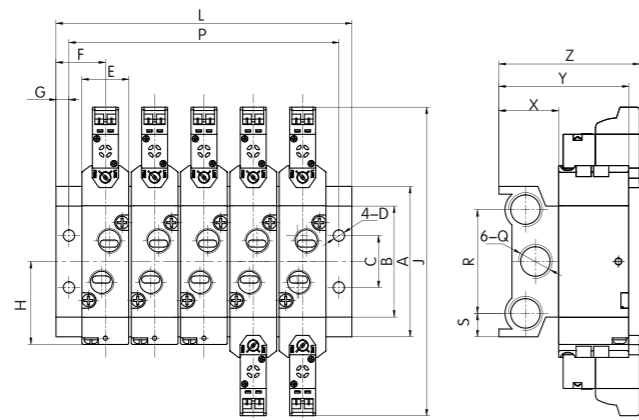


## DIRECTIONAL CONTROL VALVE

### Ordering Code

Manifold				Blank plate							
NC5V	-	100M	-	2F	-	G	NC5V	-	100M	-	B
Series Code		Model		Number of Stations		Thread Type	Series Code		Model		Code
		100M:100 series manifold 200M:200 series manifold		1: 1F 2: 2F 3: 3F ..... 20: 20F		Blank:PT thread G:G thread T:NPT thread			100M:100 series manifold 200M:200 series manifold		B:Blank plate for manifold

### Dimensions



Models	A	B	C	D	E	F	G	H	J	R	S	Q	X	Y	Z
NC5V100M	58	42.8	20	φ4.5	18	19	5	32	119	40	9	G1/4	23	50	54.2
NC5V200M	59.2	49	21	φ4.5	22	23	6	36	130	42.3	8.5	G1/4	22	57	57.7

Models	L																			
	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F	
NC5V100M	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399	
NC5V200M	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391	414	437	460	483	

Models	P																			
	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F	
NC5V100M	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	
NC5V200M	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379	402	425	448	471	

## NC4V Series 5/2,5/3 Way Solenoid Valve

### Spool structure

Good tightness and sensitive reaction, lubrication not required

### Long service life

Special technology for inner hole, small friction resistance

### Good Action stability

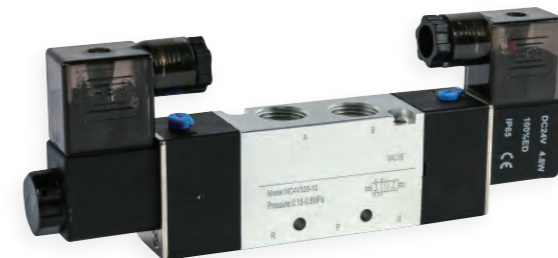
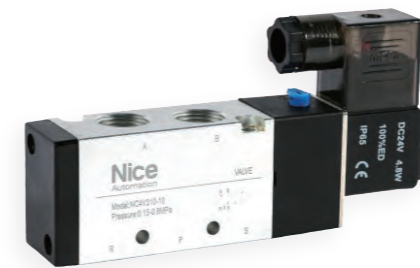
Both ends add wearing structure, action is more stable

### Memory function

Three kinds of position for central function, double has memory function

### Manual device

Convenient for installation and commissioning  
Can be integrated with the manifold



### Applications:

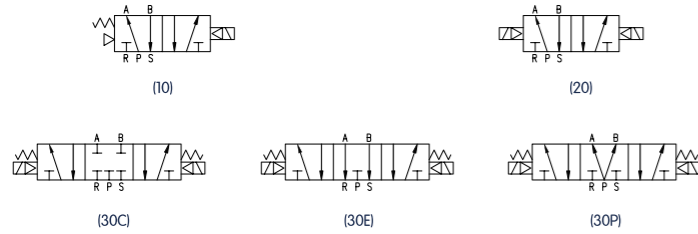
- Textile
- Industrial Automation
- Electronics & Semiconductor
- Medical Sector

## NC4V Series Solenoid Valve

### Ordering Code

<b>NC4V</b>	<b>- 1 -</b>	<b>10</b>	<b>- 06</b>	<b>- B -</b>	<b>L -</b>	<b>050</b>
<b>Series Code</b> 4V:5/2,5/3 Solenoid valve 4A:5/2,5/3 Pneumatic control valve 3V:3/2 Solenoid valve 3A:3/2 Pneumatic control valve	<b>Model code</b> 1: 100 2: 200 3: 300 4: 400	<b>Valve Type</b> 10:Single Solenoid(5/2 Way) 20:Double Solenoid(5/2 Way) 30C:Double Solenoid (5/3 Way Closed Center) 30E:Double Solenoid (5/3 Way Exhaust Center) 30P:Double Solenoid (5/3 Way Pressure Center)	<b>Port Size</b> M5:M5 x 0.8 06:G1/8" 06:G1/8" 08:G1/4" 10:G3/8" 15:G1/2"	<b>Volatge</b> A:DC12V B:DC24V C:AC110V D:AC220V	<b>Electrical Entry</b> Blank: DIN connector L: Flying Lead type	<b>Wire Length</b> Blank: Without wire 050: 500mm Available for other lengths

### NC4V100 Series---Function Symbol



### NC4V100 Series---Electrical characteristics

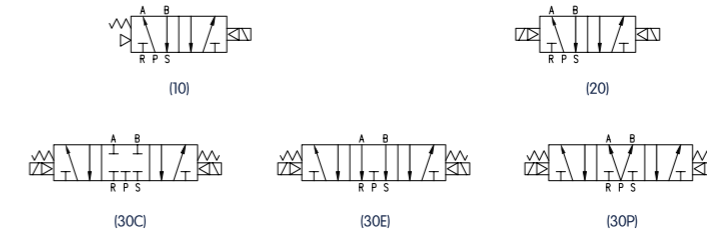
Voltage	Voltage Range	Power	Protection	Temperature Class	Electrical Entry	Response Time
AC220V	AC: ±15% DC: ±10%	3.5VA	IP65 (DIN43650B)	B Class	DIN type or leading wire type	0.05 second
AC110V		3.5VA				
AC24V		3.5VA				
DC24V		3W				
DC12V		3W				

### NC4V100 Series---Specification

Models	4V110-M5	4V120-M5	4V130C-M5	4V130E-M5	4V130P-M5	4V110-06	4V120-06	4V130C-06	4V130E-06	4V130P-06
Position Number	5 port 2 position		5 port 3 position			5 port 2 position		5 port 3 position		
Orifice Size	5.5mm <sup>2</sup> (Cv=0.31)		5.0mm <sup>2</sup> (Cv=0.28)			12.0mm <sup>2</sup> (Cv=0.67)		9.0mm <sup>2</sup> (Cv=0.50)		
Models	3V110-M5	3A110-M5	3V120-M5	3A120-M5	3V110-06	3A110-06	3V120-06	3A120-06		
Position Number	3 port 2 position									
Orifice Size	5.5mm <sup>2</sup> (Cv=0.31)					12.0mm <sup>2</sup> (Cv=0.67)				
Port Size	Inlet=Outlet=Exhaust=M5					Inlet=Outlet=Exhaust=G1/8"				
Working Medium	Air (to be filtered by 40 μm filter element)									
Acting	Pilot									
Working Pressure	0.15~0.8MPa(21~114psi)									
Max.Pressure Resistance	1.2MPa(175psi)									
Operating Temperature	-5~50 °C									
Material of Body	Aluminum									
Lubrication	Not required									
Max.Frequency	5 cycles/sec.									

## NC4V Series Solenoid Valve

### NC4V200 Series---Function Symbol



### NC4V200 Series---Electrical Characteristics

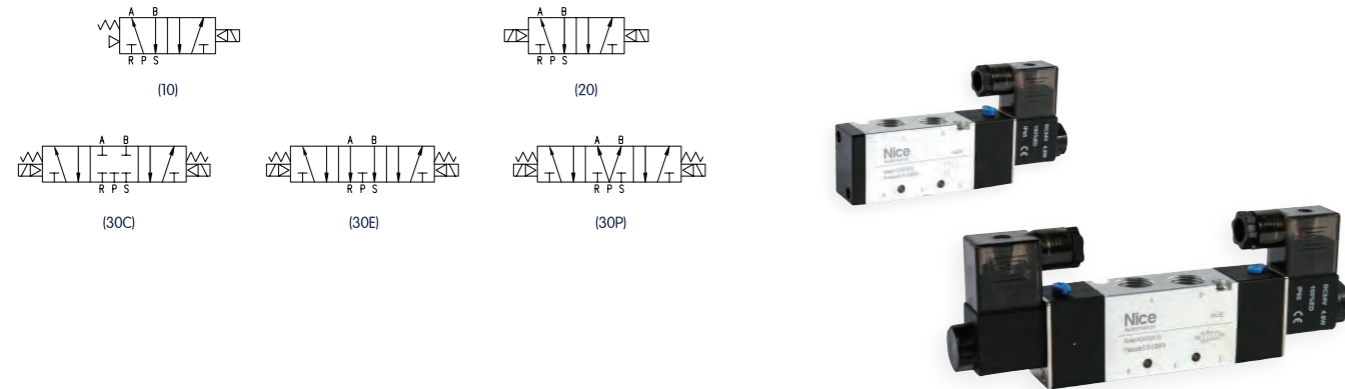
Voltage	Voltage Range	Power	Protection	Temperature Class	Electrical Entry	Response Time
AC220V	AC: ±15% DC: ±10%	3.5VA	IP65 (DIN43650B)	B Class	DIN type or leading wire type	0.05 second
AC110V		3.5VA				
AC24V		3.5VA				
DC24V		3W				
DC12V		3W				

### NC4V200 Series---Specification

Models	4V210-06	4V220-06	4V230C-06	4V230E-06	4V230P-06	4V210-08	4V220-08	4V230C-08	4V230E-08	4V230P-08
Position Number	5 port 2 position		5 port 3 position			5 port 2 position		5 port 3 position		
Orifice Size	14.0mm <sup>2</sup> (Cv=0.78)		12.0mm <sup>2</sup> (Cv=0.67)			16.0mm <sup>2</sup> (Cv=0.89)		12.0mm <sup>2</sup> (Cv=0.67)		
Models	3V210-06	3A210-06	3V220-06	3A220-06	3V210-08	3A210-08	3V220-08	3A220-08		
Position Number	3 port 2 position									
Orifice Size	14.0mm <sup>2</sup> (Cv=0.78)					16.0mm <sup>2</sup> (Cv=0.89)				
Port Size	Inlet=Outlet=Exhaust=G1/8"					Inlet=Outlet=G1/4" Exhaust=G1/8"				
Working Medium	Air (to be filtered by 40 μm filter element)									
Acting	Pilot									
Working Pressure	0.15~0.8MPa(21~114psi)									
Max.Pressure Resistance	1.2MPa(175psi)									
Operating Temperature	-5~50 °C									
Material of Body	Aluminum									
Lubrication	Not required									
Max.Frequency	5 cycles/sec.									

## NC4V Series Solenoid Valve

### NC4V300 Series---Function Symbol



### NC4V300 Series---Electrical Characteristics

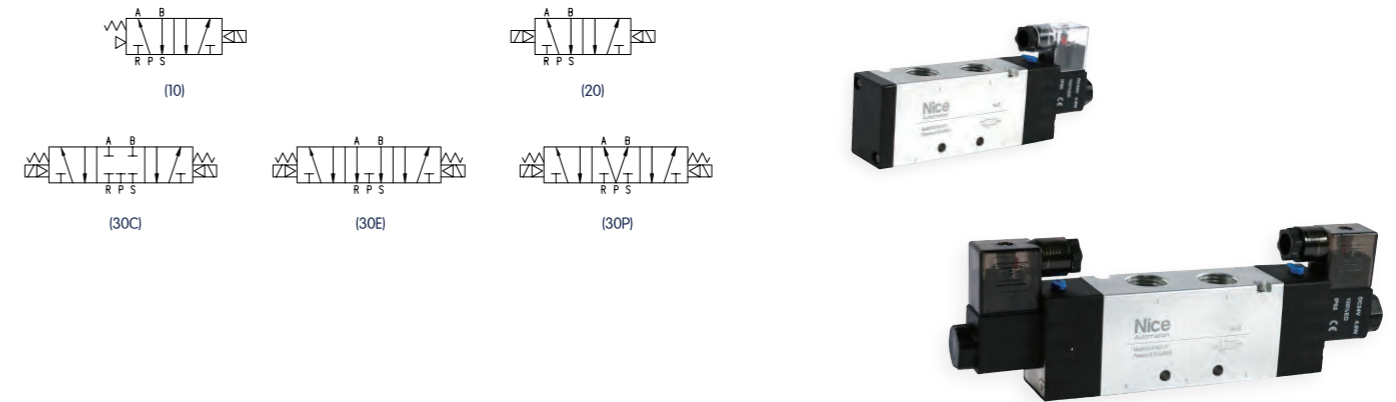
Voltage	Voltage Range	Power	Protection	Temperature Class	Electrical Entry	Response Time
AC220V	AC: ±15% DC: ±10%	3.5VA	IP65 (DIN43650B)	B Class	DIN type or leading wire type	0.05 second
AC110V		3.5VA				
AC24V		3.5VA				
DC24V		3W				
DC12V		3W				

### NC4V300 Series---Specification

Models	4V310-08	4V320-08	4V330C-08	4V330E-08	4V330P-08	4V310-10	4V320-10	4V330C-10	4V330E-10	4V330P-10
	4A310-08	4A320-08	4A330C-08	4A330E-08	4A330P-08	4A310-10	4A320-10	4A330C-10	4A330E-10	4A330P-10
Position Number	5 port 2 position		5 port 3 position			5 port 2 position		5 port 3 position		
Orifice Size	25.0mm <sup>2</sup> (Cv=1.40)		18.0mm <sup>2</sup> (Cv=1.00)			30.0mm <sup>2</sup> (Cv=1.68)		18.0mm <sup>2</sup> (Cv=1.00)		
Models	3V310-08	3A310-08	3V320-08	3A320-08	3V310-10	3A310-10	3V320-10	3A320-10		
Position Number	3 port 2 position									
Orifice Size	25.0mm <sup>2</sup> (Cv=1.40)					30.0mm <sup>2</sup> (Cv=1.68)				
Port Size	Inlet=Outlet=Exhaust=G1/4"					Inlet=Outlet=G3/8" Exhaust=G1/4"				
Working Medium	Air (to be filtered by 40 μm filter element)									
Acting	Pilot									
Working Pressure	0.15~0.8MPa(21~114psi)									
Max.Pressure Resistance	1.2MPa(175psi)									
Operating Temperature	-5~50 °C									
Material of Body	Aluminum									
Lubrication	Not required									
Max.Frequency	5 cycles/sec.									

## NC4V Series Solenoid Valve

### NC4V400 Series---Function Symbol



### NC4V400 Series---Electrical Characteristics

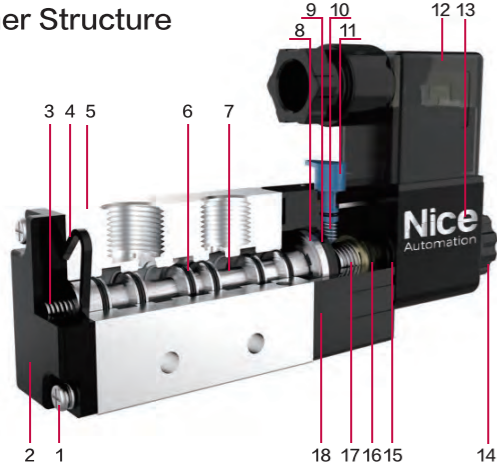
Voltage	Voltage Range	Power	Protection	Temperature Class	Electrical Entry	Response Time
AC220V	AC: ±15% DC: ±10%	3.5VA	IP65 (DIN43650B)	B Class	DIN type or leading wire type	0.05 second
AC110V		3.5VA				
AC24V		3.5VA				
DC24V		3W				
DC12V		3W				

### NC4V400 Series---Specification

Models	4V410-15	4V420-15	4V430C-15	4V430E-15	4V430P-15
	4A410-15	4A420-15	4A430C-15	4A430E-15	4A430P-15
Position Number	5 port 2 position		5 port 3 position		
Orifice Size	50.0mm <sup>2</sup> (Cv=2.79)		30.0mm <sup>2</sup> (Cv=1.68)		
Models	3V410-15	3A410-15	3V420-15	3A420-15	
Position Number	3 port 2 position				
Orifice Size	50.0mm <sup>2</sup> (Cv=2.79)				
Port Size	Inlet=Outlet=Exhaust=G1/2"				
Working Medium	Air (to be filtered by 40 μm filter element)				
Acting	Pilot				
Working Pressure	0.15~0.8MPa(21~114psi)				
Max.Pressure Resistance	1.2MPa(175psi)				
Operating Temperature	-5~50 °C				
Material of Body	Aluminum				
Lubrication	Not required				
Max.Frequency	5 cycles/sec.				

## NC4V Series Solenoid Valve

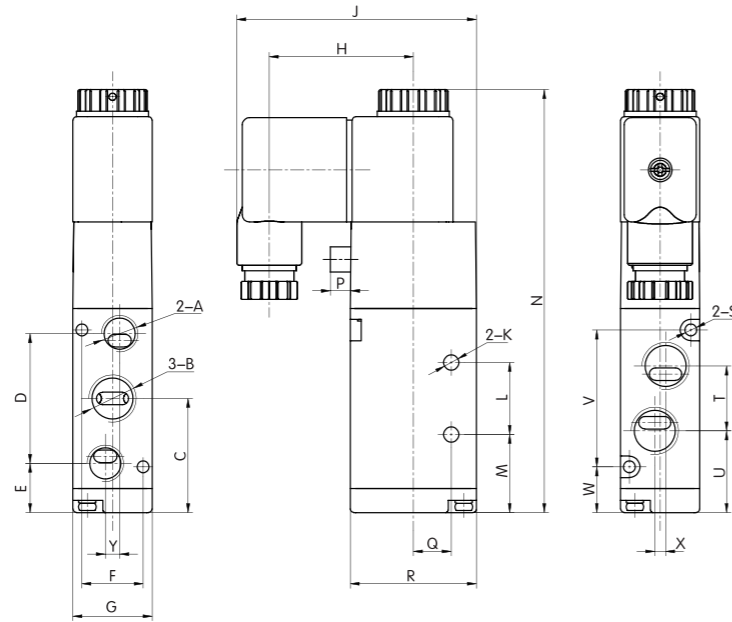
### Inner Structure



### Main Components

- |                         |                        |
|-------------------------|------------------------|
| 1. Cross Slot Pan Screw | 10. Spring             |
| 2. Back Cover           | 11. Manual Override    |
| 3. Spring               | 12. Terminal           |
| 4. Anomalous Seal       | 13. Coil               |
| 5. Valve Body           | 14. Coil Nut           |
| 6. Fat Ring             | 15. Connecting Part    |
| 7. Valve Body           | 16. O ring             |
| 8. Piston               | 17. Plunger            |
| 9. Y Ring               | 18. Piloted Valve Base |

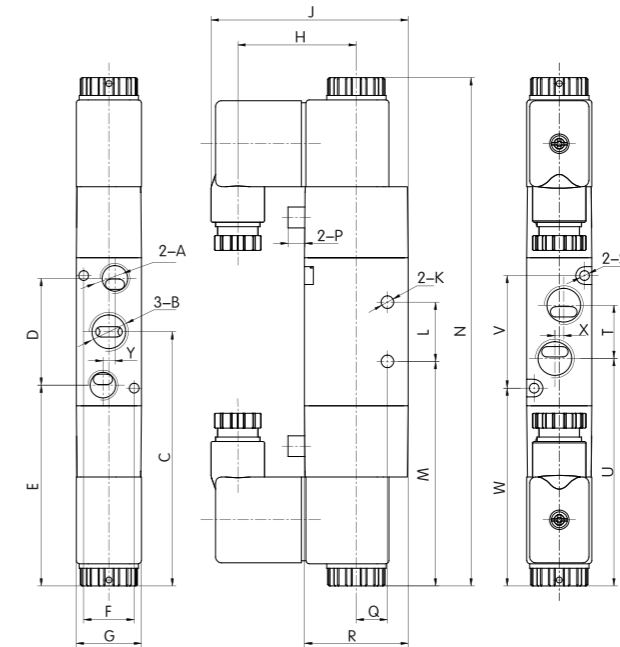
### Overall dimensions 5/2 way single coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
4V110-M5	M5	M5	28.1	27	14.6	13	18	34	55	φ3.3	14	21.1	97.5	2.5	9.5	27	φ3.3	14	21.1	30	13.1	0	0
4V110-06	PT1/8	PT1/8	28.1	28	14.1	13	18	34	55	φ3.3	14	21.1	97.5	2.5	9.5	27	φ3.3	16	20.1	30	13.1	3	2
4V210-06	PT1/8	PT1/8	31.4	36	13.4	17	22	39.9	66.7	φ4.3	20	21.4	116.8	3	10.5	35	φ3.3	18	22.4	38	12.4	0	0
4V210-08	PT1/8	PT1/4	31.4	36	13.4	17	22	39.9	66.7	φ4.3	20	21.4	116.8	3	10.5	35	φ3.3	21	20.9	38	12.4	3	0
4V310-08	PT1/4	PT1/4	39.8	45	17.3	20	27	39.9	69.2	φ4.3	24	27.8	134.7	2.4	13.5	40	φ4.3	22	28.8	50	14.8	0	0
4V310-10	PT1/4	PT3/8	39.8	45	17.3	20	27	39.9	69.2	φ4.3	24	27.8	134.7	2.4	13.5	40	φ4.3	24	27.8	50	14.8	4	0
4V410-15	PT1/2	PT1/2	55.5	63	24	27	34	39.9	74.2	φ5.5	28	41.5	166.9	2.8	17.5	50	φ4.3	36	37.5	72	19.5	4	0

## NC4V Series Solenoid Valve

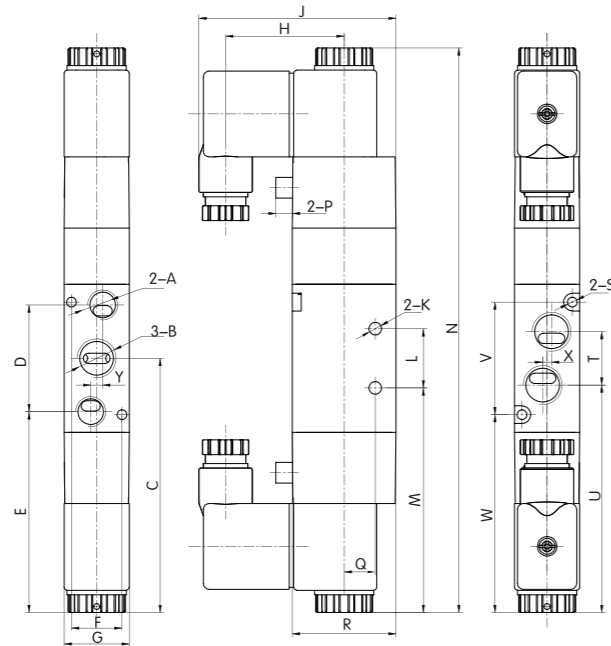
### Overall dimensions 5/2 way double coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
4V120-M5	M5	M5	69.5	27	55.9	13	18	34	55	φ3.3	14	62.5	138.8	2.5	9.5	27	φ3.3	14	62.4	30	54.4	0	0
4V120-06	PT1/8	PT1/8	69.5	28	55.5	13	18	34	55	φ3.3	14	62.5	138.8	2.5	9.5	27	φ3.3	16	61.4	30	54.4	3	2
4V220-06	PT1/8	PT1/8	85.4	36	67.4	17	22	39.9	66.7	φ4.3	20	75.4	170.8	3	10.5	35	φ3.3	18	76.4	38	66.4	0	0
4V220-08	PT1/8	PT1/4	85.4	36	67.4	17	22	39.9	66.7	φ4.3	20	75.4	170.8	3	10.5	35	φ3.3	21	74.9	38	66.4	3	0
4V320-08	PT1/4	PT1/4	94.9	45	72.4	20	27	39.9	69.2	φ4.3	24	82.9	189.8	2.4	13.5	40	φ4.3	22	83.9	50	69.9	0	0
4V320-10	PT1/4	PT3/8	94.9	45	72.4	20	27	39.9	69.2	φ4.3	24	82.9	189.8	2.4	13.5	40	φ4.3	24	82.9	50	69.9	4	0
4V420-15	PT1/2	PT1/2	111.4	63	79.9	27	34	39.9	74.2	φ5.5	28	97.4	222.8	2.8	17.5	50	φ4.3	36	93.4	72	75.4	4	0

## NC4V Series Solenoid Valve

Overall Dimensions  
5/3 way double coil



Models	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
4V130-M5	M5	M5	69.5	27	55.9	13	18	34	55	φ3.3	14	62.5	153.8	2.5	9.5	27	φ3.3	14	62.4	30	54.4	0	0
4V130-06	PT1/8	PT1/8	69.5	28	55.5	13	18	34	55	φ3.3	14	62.5	153.8	2.5	9.5	27	φ3.3	16	61.4	30	54.4	3	2
4V230-06	PT1/8	PT1/8	85.4	36	67.4	17	22	39.9	66.7	φ4.3	20	75.4	189.8	3	10.5	35	φ3.3	18	76.4	38	66.4	0	0
4V230-08	PT1/8	PT1/4	85.4	36	67.4	17	22	39.9	66.7	φ4.3	20	75.4	189.8	3	10.5	35	φ3.3	21	74.9	38	66.4	3	0
4V330-08	PT1/4	PT1/4	94.9	45	72.4	20	27	39.9	69.2	φ4.3	24	82.9	208.8	2.4	13.5	40	φ4.3	22	83.9	50	69.9	0	0
4V330-10	PT1/4	PT3/8	94.9	45	72.4	20	27	39.9	69.2	φ4.3	24	82.9	208.8	2.4	13.5	40	φ4.3	24	82.9	50	69.9	4	0
4V430-15	PT1/2	PT1/2	111.4	63	79.9	27	34	39.9	74.2	φ5.5	28	97.4	243.8	2.8	17.5	50	φ4.3	36	93.4	72	75.4	4	0



FLUID CONTROL VALVE



### NCB Series 2/2, 3/2 Way Solenoid Valve

- Low noise, no water hammer impact, stable work
- Various styles, high-temperature and high-pressure types are optional
- Suitable for gas, water, oil, weak acid / alkali



### NCJ Series Angle Seat Valve

- Long service life
- Stem is automatically calibrated, self-lubricating, no maintenance required
- The cylinder is made of high-quality stainless steel, which can rotate 360 and be used in harsh environments.



### NCP Series Drain Solenoid Valve

- One model is suitable for all applications
- Simple installation, fully automatic, maintenance-free
- Adjustable interval time and discharge time, and with manual test switch

## NCB-2N Series Large Orifice Solenoid Valve (2/2 way)



### Features

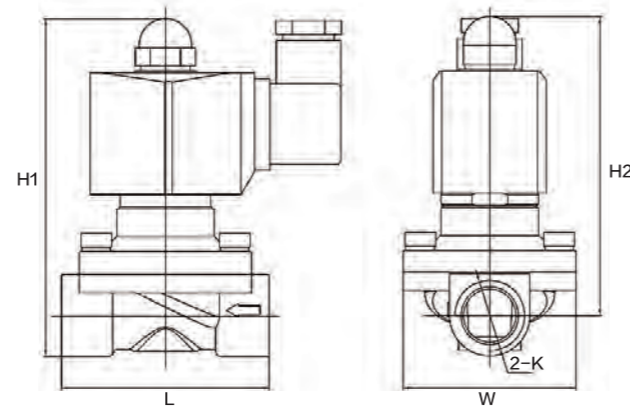
- Direct-acting diaphragm structure solenoid valve, zero pressure difference start, beautiful appearance and large flow.
- Suitable for air, inert gas, water, oil and other gas / liquid, compatible with the sealing material used.
- The valve can be equipped with fluorine rubber, EPDM and NBR seals.
- Solenoid valve can be installed in any position without affecting operation.
- Coil protection level: IP54 iron case coil / IP65 plastic sealed coil.

### Ordering Code

<b>NCB2N</b>	-	<b>160</b>	-	<b>15</b>	-	<b>06</b>	-	<b>K</b>	-	<b>DC24V</b>
Valve body 2N: Brass 2S: Stainless steel 2P: Plastic		Orifice 160:16mm 200:20mm 250:25mm 350:35mm 400:40mm 500:50mm		Port size 10:3/8" 15:1/2" 20:3/4" 25:1" 35:1 1/4" 40:1 1/2" 50:2"		Seal Blank: NBR V: VITON E:EPDM		Initial State Blank: Normal Close K: Normal Open		Volatge DC12V DC24V AC24V AC36V AC110V AC220V

### Dimensions

Models	H2	H1	L	W	K
NCB2N160-10	97	110	66	57	G3/8"
NCB2N160-15	97	110	66	57	G1/2"
NCB2N200-20	106	115	70	57	G3/4"
NCB2N250-25	106	122	99	73	G1"
NCB2N350-35	136	167	124	90.5	G1-1/4"
NCB2N400-40	136	167	124	90.5	G1-1/2"
NCB2N500-50	151	186	164	124	G2"



### Specification

Models	Port Size	Orifice	Cv Value	Min.Working Pressure	Max.Working Pressure						Power(Encapsulation Coil)	
					AC			DC			AC220V	DC24V
					Air	Water	Oil ≤ 20CST	Air	Water	Oil ≤ 20CST	VA	W
NCB2N160-10	3/8"	16	4.8	0	10	10	7	10	7	5	26VA	30W
NCB2N160-15	1/2"	16	4.8	0	10	10	7	10	7	5	26VA	30W
NCB2N200-20	3/4"	20	7.6	0	10	10	7	10	7	5	26VA	30W
NCB2N250-25	1"	25	12	0	10	10	7	10	7	5	26VA	30W
NCB2N350-35	1-1/4"	35	24	0	10	10	7	10	5	3	28VA	30W
NCB2N400-40	1-1/2"	40	29	0	10	10	7	10	5	3	28VA	30W
NCB2N500-50	2"	50	40	0	10	10	7	10	5	3	28VA	30W

## NCB-22A Series Direct-acting Solenoid Valve (2/2 way)



### Features

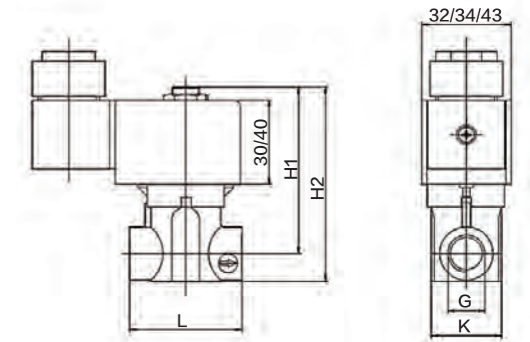
- Direct-acting, zero pressure differential start.
- Compact structure, large flow, high reliability.
- Low noise, no water hammer impact, stable work.
- Protection grade: IP65.
- Suitable for gas, water, oil, weak acid / alkali.
- Can be used as an explosion-proof valve by replace the pilot head and coil.

### Ordering Code

<b>NCB</b>	-	<b>22A</b>	-	<b>10</b>	-	<b>08</b>	-	<b>S</b>
2/2,3/2 Way Solenoid Valve		Direct Acting		Orifice 10:10mm 14:14mm 20:20mm		Port Size 08:G1/4" 10:G3/8" 15:G1/2" 20:G3/4" 25:G1"		Body Material Blank: Brass S:Stainless steel

### Dimensions

Models	L	K	H1	H2
NCB22A-1008	50	38	71	85
NCB22A-1010	50	38	71	85
NCB22A-1015	50	38	71	85
NCB22A-1415	66	44	77	91
NCB22A-1420	60	44	80	96
NCB22A-2020	83	65	111	131
NCB22A-2025	83	65	111	131



### Specification

Models	Port size	Orifice DN(mm)	Kv Value (m³/h)	Working Pressure	Seal
				(MPa)	
NCB22A-1008	G1/4	10	1.40	0~1.0	NBR/FKM/EPDM
NCB22A-1010	G3/8	10	1.40	0~1.0	
NCB22A-1015	G1/2	10	1.40	0~1.0	
NCB22A-1415	G1/2	14	2.52	0~1.0	
NCB22A-1420	G3/4	14	2.52	0~1.0	
NCB22A-2020	G3/4	20	5.00	0~1.0	
NCB22A-2025	G1	20	5.00	0~1.0	

## NCB-22B Series Pilot-operated Solenoid Valve (2/2 way)



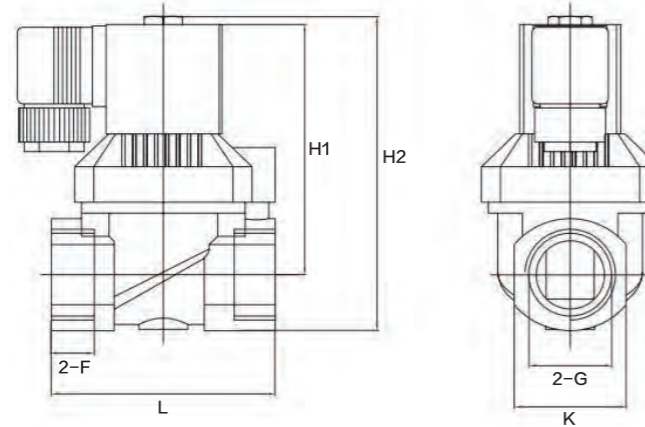
### Features

- Damping design for valve quiet closing
- High reliability, high flow and long life
- Explosion-proof types are optional
- Low noise, no water hammer, no vibration sound
- Can be used for gas, water, oil, weak base and weak acid

### Ordering Code

<b>NCB</b>	-	<b>22B</b>	-	<b>10</b>	-	<b>08</b>	-	<b>S</b>	-	<b>K</b>
2/2,3/2 Way Solenoid Valve		Pilot Type		Orifice 10:10mm 14:14mm 20:20mm 40:40mm 50:50mm		Port Size 08:G1/4" 10:G3/8" 15:G1/2" 20:G3/4" 25:G1" 32:G1-1/4" 40:G1-1/2" 50:G2"		Body Material Blank: Brass S:Stainless steel		Valve Operating Blank:NC K:NO

### Dimensions



### Specification

Models	Port Size	Orifice DN(mm)	Kv Value (m³/h)	Working Pressure	Overall Dimension			
				(MPa)	L	K	H1	H2
NCB22B-1008	G1/4	10	1.40	0.02~1.0	50	38	71	85
NCB22B-1010	G3/8	10	1.40	0.02~1.0	50	38	71	85
NCB22B-1015	G1/2	10	1.40	0.02~1.0	50	38	71	85
NCB22B-1415	G1/2	14	2.52	0.02~1.0	66	44	77	91
NCB22B-1420	G3/4	14	2.52	0.02~1.0	60	44	80	96
NCB22B-2020	G3/4	20	5.00	0.02~1.0	83	65	97	117
NCB22B-2025	G1	20	5.00	0.02~1.0	83	65	97	117
NCB22B-4032	G1-1/4	40	18.00	0.05~1.6	133	96	108	140
NCB22B-4040	G1-1/2	40	18.00	0.05~1.6	133	96	108	140
NCB22B-5050	G2	50	28.00	0.05~1.6	160	113	124	164

## NCB-22H Series High Pressure / Temperature Solenoid Valve (2/2 way)



### Features

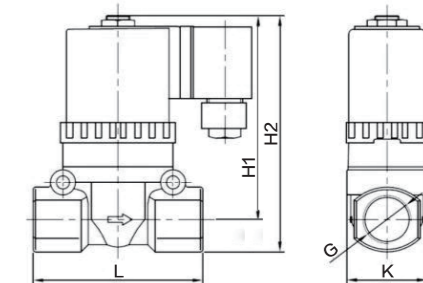
- High temperature type, medium temperature may reach 180°C
- High pressure type, max. working pressure may reach 5MPa
- Piston structure, smooth starting, high reliability, long working life
- Explosion proof versions are optional

### Ordering Code

<b>NCB</b>	-	<b>22H</b>	-	<b>10</b>	-	<b>08</b>	-	<b>K</b>
Item No.		High Pressure /Temperature		Orifice 13:13mm 25:25mm		Port Size 08:G1/4" 10:G3/8" 15:G1/2" 20:G3/4" 25:G1"		Valve Operating Blank:NC K:NO

### Dimensions

Models	Overall Dimension			
	L	K	H1	H2
NCB22H-1308	72	33	85	98
NCB22H-1310	72	33	85	98
NCB22H-1315	72	33	85	98
NCB22H-2520	100	60	105	125
NCB22H-2525	100	60	105	125



### Specification

Models	Port size	Orifice DN(mm)	Kv Value (m³/h)	Working Pressure		Seal
				High Pressure (MPa)	High Temperature (MPa)	
NCB22H-1308	G1/4	13	3.1	0~4.0	0.1~1.6	High Pressure: NBR/FKM/EPDM High Temperature : PTFE
NCB22H-1310	G3/8	13	3.1	0~4.0	0.1~1.6	
NCB22H-1315	G1/2	13	3.1	0~4.0	0.1~1.6	
NCB22H-2520	G3/4	25	12.3	0~4.0	0.1~1.6	
NCB22H-2525	G1	25	12.3	0~4.0	0.1~1.6	



## NCB-22/23E Series Direct-acting Solenoid Valve (2/2 way)



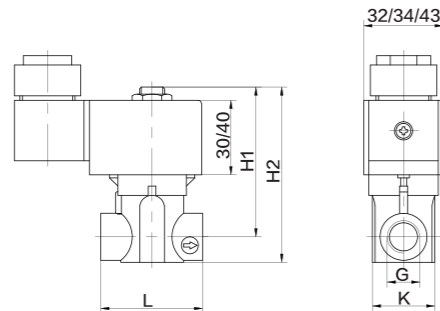
### Features

- Direct-acting, Compact design
- Vibration-proof, bolted coil system
- Increased leak-tightness with welded plunger guide tube
- Explosion proof versions
- High pressure variants for gases and liquids

### Ordering Code

<b>NCB</b>	-	<b>22/23E</b>	-	<b>01</b>	-	<b>06</b>	-	<b>S</b>	-	<b>K</b>
2/2,3/2 Way Solenoid Valve		Function 22: 2/2 way 23: 3/2 way		Orifice 01:1mm 016:1.6mm 02:2mm 03:3mm 04:4mm		Port Size 06:G1/8" 08:G1/4" 10:G3/8"		Body Material Blank: Brass S:Stainless steel		Valve Operating Blank:NC K:NO

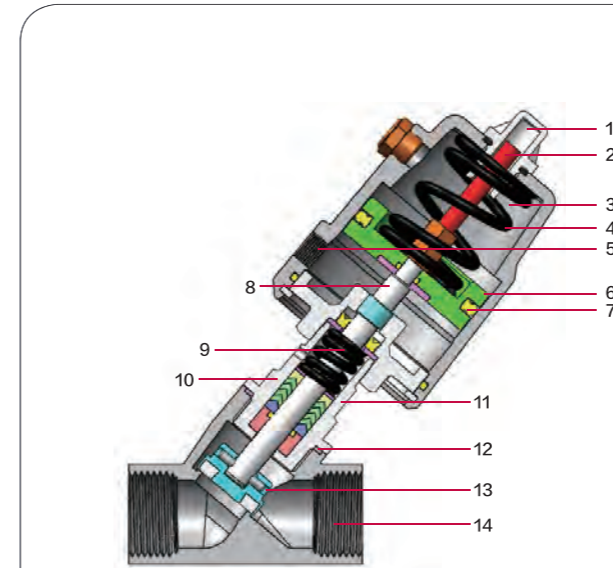
### Dimensions



### Specification

Models	Port size	Orifice DN(mm)	Kv Value (m³/h)	Working Pressure		Overall Dimension			
				(MPa)	(MPa)	L	K	H1 22/23	H2 22/23
NCB22/23E01-06	G1/8	1.0	0.02	0~5.0	40	25	69/77	79/87	
NCB22/23E016-06	G1/8	1.6	0.06	0~4.0	40	25	69/77	79/87	
NCB22/23E02-06	G1/8	2.0	0.09	0~2.5	40	25	69/77	79/87	
NCB22/23E03-06	G1/8	3.0	0.20	0~1.0	40	25	69/77	79/87	
NCB22/23E01-08	G1/4	1.0	0.02	0~5.0	40	25	69/77	79/87	
NCB22/23E016-08	G1/4	1.6	0.06	0~4.0	40	25	69/77	79/87	
NCB22/23E02-08	G1/4	2.0	0.09	0~2.5	40	25	69/77	79/87	
NCB22/23E03-08	G1/4	3.0	0.20	0~1.0	40	25	69/77	79/87	
NCB22/23E04-08	G1/4	4.0	0.38	0~0.6	40	25	69	79	
NCB22/23E01-10	G3/8	1.0	0.02	0~5.0	40	25	71/80	82/90	
NCB22/23E016-10	G3/8	1.6	0.06	0~4.0	40	25	71/80	82/90	
NCB22/23E02-10	G3/8	2.0	0.09	0~2.5	40	25	71/80	82/90	
NCB22/23E03-10	G3/8	3.0	0.20	0~1.0	40	25	71/80	82/90	
NCB22/23E04-10	G3/8	4.0	0.38	0~0.6	40	25	71	82	

## NCJ Series Angle Seat Valve



### Main parts

- |                           |                                |
|---------------------------|--------------------------------|
| 1.Cap (PC)                | 8.Stem (AISI316/304)           |
| 2.Indication Rod( nylon)  | 9.Seal Spring (AISI304)        |
| 3.Actuator (CF8)          | 10.Stem Seal (PTFE)            |
| 4.Spring (Steel 65Mn)     | 11.Connecting Piece (CF8M/CF8) |
| 5.Pilot Port (1/8" )      | 12.Body Seal (PTFE)            |
| 6.Piston (Aluminum alloy) | 13.Seat (PTFE)                 |
| 7.Piston Seal (Viton)     | 14.Body (CF8M/CF8)             |

### Feature

- Long service life
- Large flow, small flow resistance, no water hammer
- Special design flow channel, the flow rate is increased by 30%
- The cylinder made with high-quality stainless steel, can rotate 360° and be used in harsh environments
- Automatic valve stem calibration, self-lubricating, no maintenance required

### Applications

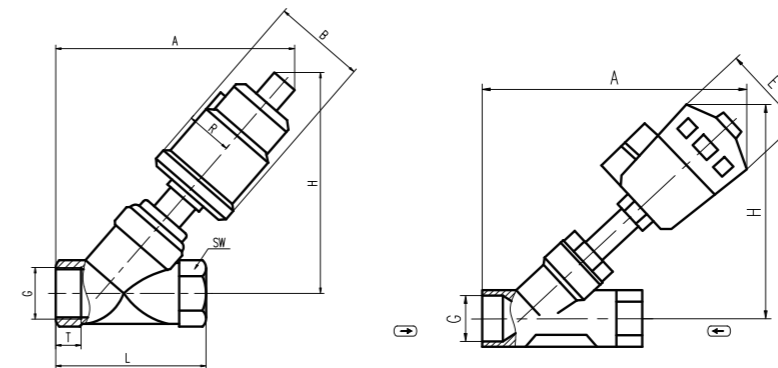
- Beer/Beverage Filling Machinery
- Textile Printing and Dyeing
- Air Separation Technology
- Pharmacy & Medical Equipment
- Water/Sewage Disposal
- Disinfection

### Inner Structure

### Ordering Code

<b>NCJ</b>	-	<b>50</b>	-	<b>X</b>	-	<b>15</b>	-	<b>H</b>	-	<b>D</b>	-	<b>W</b>	-	<b>X</b>
Angle Seat Valve		Actuator Size φ 40 φ 50 φ 63 φ 80 φ 100 φ 125		Actuator Material S:Stainless Steel P: Plastic		Size 10 15 20 25 32 40 50 65 80 100		Connection G:BSP Thread T:BSP Thread N:NPT Thread H:Welded F: Flange K: Clamp		Valve Operating D: Double acting S: Single acting		Installation Direction Y: Above Seat W: Below Seat		Annex S: Proximity Switch V: Solenoid Valve L: Manual Override

### NCJ Series Angle Seat Valve - Thread Type



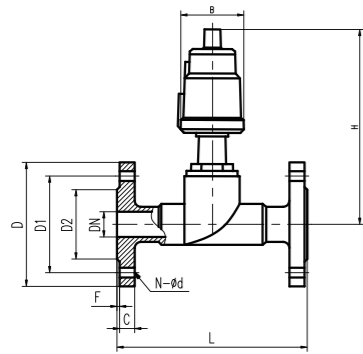
## NCJ Series Angle Seat Valve

### NCJ Series Angle Seat Valve – Thread Type

Stainless Steel										
Models	Actuator	B	R	H	G	T	A	L	SW	P
DN10	φ 40	50.5	27	112	3/8"	12	124	68	27	G1/8"
DN10	φ 50	60	33	125	3/8"	12	135	68	27	G1/8"
DN15	φ 40	50.5	27	112	1/2"	15	124	68	27	G1/8"
DN15	φ 50	60	33	125	1/2"	15	135	68	27	G1/8"
DN20	φ 50	60	33	132	3/4"	16	140	75	32	G1/8"
DN25	φ 50	60	33	136	1"	17	150	90	40	G1/8"
DN25	φ 63	75	41	162	1"	17	172	90	40	G1/8"
DN32	φ 63	75	41	174	1-1/4"	21	190	116	50	G1/8"
DN32	φ 80	106	55	223	1-1/4"	21	235	116	50	G1/8"
DN40	φ 63	75	41	175	1-1/2"	21	190	116	56	G1/8"
DN40	φ 80	106	55	223	1-1/2"	21	235	116	56	G1/8"
DN50	φ 63	75	41	183	2"	22	205	138	69	G1/8"
DN50	φ 80	106	55	232	2"	22	250	138	69	G1/8"
DN50	φ 100	148	74	287	2"	22	294	138	69	G1/4"
DN65	φ 80	106	55	265	2-1/2"	26	285	178	85	G1/4"
DN65	φ 100	148	74	302	2-1/2"	26	320	178	85	G1/4"
DN80	φ 100	148	74	313	3"	27	372	210	100	G1/4"

Plastic							
Models	Actuator	L	E	A	H	G	P
DN10	φ 50	65	64	165	120	3/8"	G1/8"
DN10	φ 50	65	64	165	120	3/8"	G1/8"
DN15	φ 50	86	64	172	137	1/2"	G1/8"
DN15	φ 50	86	64	172	137	1/2"	G1/8"
DN20	φ 50	95	64	178	145	3/4"	G1/8"
DN20	φ 50	95	64	178	145	3/4"	G1/8"
DN25	φ 50	105	64	210	165	1"	G1/8"
DN25	φ 50	105	64	210	165	1"	G1/8"
DN32	φ 63	120	80	220	180	1-1/4"	G1/8"
DN32	φ 63	120	80	220	180	1-1/4"	G1/8"
DN40	φ 63	130	80	228	190	1-1/2"	G1/8"
DN40	φ 63	130	80	228	190	1-1/2"	G1/8"
DN50	φ 80	150	100	265	245	2"	G1/8"
DN50	φ 80	150	100	265	245	2"	G1/8"
DN65	φ 80	185	100	282	272	2-1/2"	G1/8"
DN80	φ 100	220	126	362	302	3"	G1/8"
DN80	φ 100	220	126	362	302	3"	G1/8"

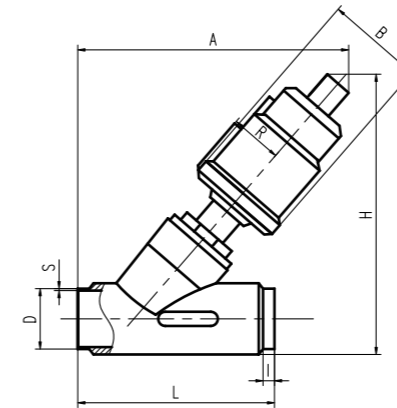
### NCJ Series Angle Seat Valve – Flange Type



Models	Actuator	B	H	L	F	C	D1	N-φd	DN	D2	D
DN15	50	35	125	120	2	14	65	4-φ14	16	45	95
DN20	50	35	132	130	2	14	75	4-φ14	20	56	105
DN25	50	35	136	140	2	14	85	4-φ14	25	65	115
DN25	63	77	162	140	2	14	85	4-φ14	25	65	115
DN32	63	77	175	150	2	16	100	4-φ14	32	78	140
DN32	80	98	223	150	2	16	100	4-φ14	32	78	140
DN40	63	77	175	180	3	16	110	4-φ18	38	84	150
DN40	80	98	223	180	3	16	110	4-φ18	38	84	150
DN50	63	77	183	195	3	16	125	4-φ18	49	100	165
DN50	80	98	232	195	3	16	125	4-φ18	49	100	165
DN50	125	148	287	195	3	16	125	4-φ18	49	100	165
DN65	80	98	285	230	3	18	145	4-φ18	66	120	185
DN65	125	148	302	230	3	18	145	4-φ18	66	120	185
DN80	125	148	313	250	3	20	160	4-φ18	78	135	200
DN100	125	148	382	280	3	20	180	4-φ18	96	135	215

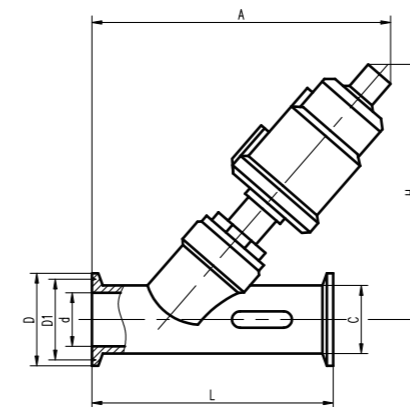
## NCJ Series Angle Seat Valve

### NCJ Series Angle Seat Valve –Welded Type



Dimensions							DIN11850-2			DIN11850-3		
Models	Actuators	B	R	H	A	L	D	S	I	D	S	I
DN15	50	60	33	125	128	70	19	1.5	2	20	2	2
DN20	50	60	33	132	135	82	23	1.5	2.5	24	2	2.5
DN25	63	75	41	162	175	100	29	1.5	3	30	2	3
DN32	63	75	41	174	186	125	35	1.5	3	36	2	3
DN40	63	75	41	175	190	130	41	1.5	3	42	2	3
DN50	80	106	55	232	250	155	53	1.5	3	54	2	3
DN65	100	148	74	302	325	270	70	2	3	-	-	-

### NCJ Series Angle Seat Valve –Tri-clamp Type



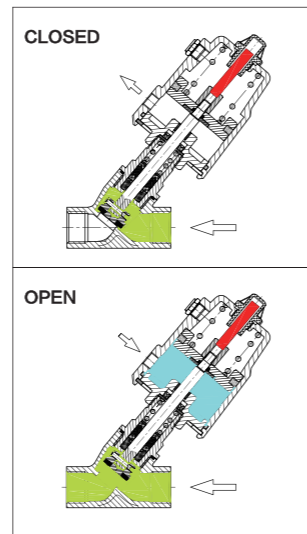
Models	Actuator	D	D1	C	d	L	A	H
DN15	50	34	27.5	19	15	120	140	126
DN20	50	50.5	43.5	25	21	130	148	126
DN25	50	50.5	43.5	32	27	140	165	140
DN25	63	50.5	43.5	32	27	140	188	166
DN32	63	50.5	43.5	37	31	150	200	174
DN32	80	50.5	43.5	37	31	150	245	223
DN40	63	64	56.5	40	33	180	210	175
DN40	80	64	56.5	40	33	180	255	223
DN50	63	64	56.5	53	45	195	221	185
DN50	80	64	56.5	53	45	195	265	235

## NTP Series Drain Valve

### Single Acting, Normally Closed(NC)-Enter Above Seat

Suitable for condensable media, such as air, steam; and low pressure liquid media

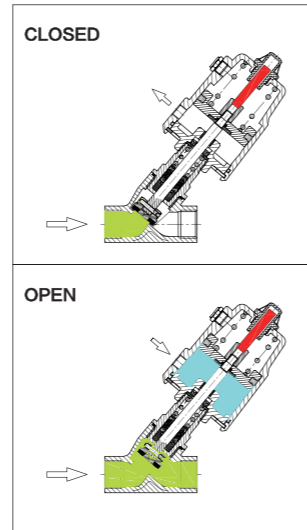
Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	0.3-0.45
DN10	G3/8"	13	5.2	50	0-1.6	0.3-0.35
DN15	G1/2"	13	6.3	40	0-1.6	0.3-0.45
DN15	G1/2"	13	6.3	50	0-1.6	0.3-0.35
DN20	G3/4"	18	11.5	50	0-1.6	0.3-0.4
DN25	G1"	24	20.6	50	0-1.6	0.3-0.45
DN25	G1"	24	20.6	63	0-1.6	0.3-0.35
DN32	G1-1/4"	31	30.3	63	0-1.6	0.3-0.55
DN40	G1-1/2"	35	42.3	63	0-1.6	0.3-0.65
DN40	G1-1/2"	35	42.3	80	0-1.6	0.2-0.4
DN50	G2"	45	60.7	63	0-0.9	0.3-0.7
DN50	G2"	45	60.7	80	0-1.6	0.25-0.45
DN65	G2-1/2"	61	90.5	80	0-1.0	0.2-0.6
DN80	G3"	80	135.1	100	0-1.6	0.2-0.7



### Single Acting, Normally Closed(NC)- Enter Below Seat (No Water-hammer)

Flow come from below seat, avoid water hammer

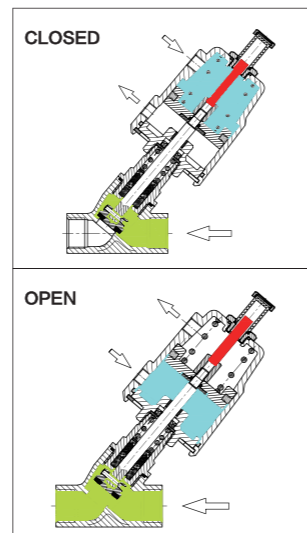
Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	5.2	40	0-1.1	0.3
DN10	G3/8"	13	5.2	50	0-1.4	0.45
DN15	G1/2"	13	6.3	40	0-1.1	0.3
DN15	G1/2"	13	6.3	50	0-1.4	0.45
DN20	G3/4"	18	11.5	50	0-1.4	0.45
DN25	G1"	24	20.6	50	0-0.75	0.45
DN25	G1"	24	20.6	63	0-1.4	0.5
DN32	G1-1/4"	31	30.3	63	0-0.6	0.5
DN40	G1-1/2"	35	42.3	63	0-0.5	0.5
DN40	G1-1/2"	35	42.3	80	0-1.6	0.6
DN50	G2"	45	60.7	63	0-0.35	0.5
DN50	G2"	45	60.7	80	0-1.1	0.6
DN65	G2-1/2"	61	90.5	80	0-0.7	0.6
DN80	G3"	80	135.1	100	0-0.6	0.6



### Double Acting, Normally Closed(NC)-Enter Above Seat

Suitable for higher Δ P; valve could be closed if there is emergency

Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	0.3-0.45
DN10	G3/8"	13	5.2	50	0-1.6	0.3-0.35
DN15	G1/2"	13	6.3	40	0-1.6	0.3-0.45
DN15	G1/2"	13	6.3	50	0-1.6	0.3-0.35
DN20	G3/4"	18	11.5	50	0-1.6	0.3-0.4
DN25	G1"	24	20.6	50	0-1.6	0.3-0.45
DN25	G1"	24	20.6	63	0-1.6	0.3-0.35
DN32	G1-1/4"	31	30.3	63	0-1.6	0.3-0.55
DN40	G1-1/2"	35	42.3	63	0-1.6	0.3-0.65
DN40	G1-1/2"	35	42.3	80	0-1.6	0.2-0.4
DN50	G2"	45	60.7	63	0-0.9	0.3-0.7
DN50	G2"	45	60.7	80	0-1.6	0.25-0.45
DN65	G2-1/2"	61	90.5	80	0-1.0	0.2-0.6
DN80	G3"	80	135.1	100	0-1.6	0.2-0.7

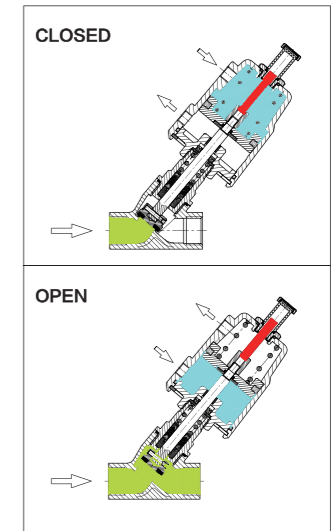


## NCJ Series Angle Seat Valve

### Double Acting, Normally Closed(NC)-Enter Below Seat (No Water-hammer)

Flow come from below seat ,avoid water hammer,suitable for higher Δ P

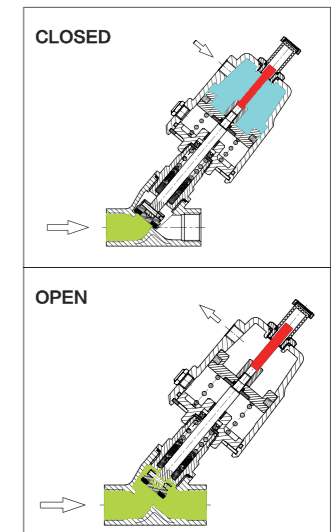
Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	≥ 0.3
DN10	G3/8"	13	5.2	50	0-1.6	≥ 0.3
DN15	G1/2"	13	6.3	40	0-1.6	≥ 0.3
DN15	G1/2"	13	6.3	50	0-1.6	≥ 0.3
DN20	G3/4"	18	11.5	50	0-1.6	≥ 0.3
DN25	G1"	24	20.6	50	0-1.6	0.3-0.6
DN25	G1"	24	20.6	63	0-1.3	0.3-0.4
DN32	G1-1/4"	31	30.3	63	0-1.6	0.3-0.6
DN40	G1-1/2"	35	42.3	63	0-1.6	0.3-0.7
DN40	G1-1/2"	35	42.3	80	0-1.6	0.2-0.5
DN50	G2"	45	60.7	63	0-0.8	0.3-0.75
DN50	G2"	45	60.7	80	0-1.6	0.2-0.6
DN65	G2-1/2"	61	90.5	80	0-1.1	0.2-0.7
DN80	G3"	80	135.1	100	0-1.6	0.2-0.65



### Normally Open (NO)-Enter Below Seat (No water -hammer)

Suitable for long time valve open demand,avoid water hammer.Taking off the silencer, valve could be changed to double acting -NO type.

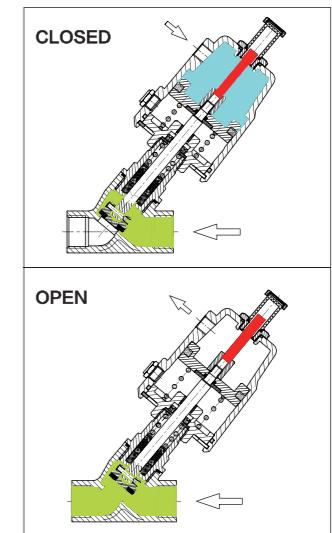
Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	3.8	50	0-1.6	0.2-0.4
DN15	G1/2"	13	4.7	50	0-1.6	0.2-0.4
DN20	G3/4"	18	9.5	50	0-1.6	0.2-0.6
DN25	G1"	24	18.1	50	0-1.3	0.2-0.6
DN25	G1"	24	18.1	63	0-1.6	0.25-0.5
DN32	G1-1/4"	31	23.1	63	0-1.3	0.25-0.6
DN40	G1-1/2"	35	32.9	63	0-0.7	0.25-0.6
DN40	G1-1/2"	35	32.9	80	0-1.6	0.3-0.35
DN50	G2"	45	52.8	63	0-0.5	0.25-0.6
DN50	G2"	45	52.8	80	0-1.6	0.25-0.6
DN65	G2-1/2"	61	82.6	80	0-0.75	0.25-0.5
DN80	G3"	80	127	100	0-1.2	0.25-0.7



### Normally Open (NO)-Enter Above Seat

Suitable for long time valve open demand,Taking off the silencer, valve could be changed to double acting - NO type

Size	Thread End	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure(Mpa)
DN10	G3/8"	13	3.8	50	0-1.6	≥ 0.3
DN15	G1/2"	13	4.7	50	0-1.6	≥ 0.3
DN20	G3/4"	18	9.5	50	0-1.2	≥ 0.3
DN25	G1"	24	18.1	50	0-0.3	≥ 0.3
DN25	G1"	24	18.1	63	0-1.6	≥ 0.45
DN32	G1-1/4"	31	23.1	63	0-1.4	≥ 0.45
DN40	G1-1/2"	35	32.9	63	0-1.4	≥ 0.45
DN50	G2"	45	52.8	63	0-0.6	≥ 0.45



## NTP Series Drain Valve



**NCP-25**  
Timer drain valve

### Features

- Does not air-lock during operation
- Suitable for any type of compressed air systems and up to any size
- TEST (micro-switch) feature
- Accurate time cycles
- Digital timer offering milli seconds to hours
- 12 – 380VAC/DC 50/60HZ. SUPPLY VOLTAGE OPTIONS
- All seals available for any application

## Specification

Maximum Compressor Capacity	Any Size
Pressure Range	0-16bar,0-40bar, 0-80bar (higher pressure available)
Supply Voltage Options	12 – 380 VAC/DC 50/60Hz. (please indicate)
Medium Temperature	-20°C ~60 °C
Timer Cycle Range (ON/OFF)	ON:0.5 – 10 seconds OFF:0.5 – 45 minutes
PCB Timer PCB	High quality PCB components, ensuring consistency in production
Timer Cycle Indication	Bright LED illumination
Test Feature	Yes
Valve Type	2/2 way, direct acting
Valve Orifice	4.5 mm,2.5mm,1.9mm
Valve Seals	FKM
Inlet/Outlet Connections	1/8" , 1/4" , 3/8" , 1/2" (BSP,BSPT,NPT thread are available)
Valve Body Material	Brass or Stainless steel
Power Connection	DIN 43650 A
Environmental Protection	NEMA4 (IP65)

## Application



**NCP-28**  
Timer drain with integrated strainer

This series of Timer control drain valves are widely used in filters, separators, dryers, gas storage tanks, drip feet and other compressed air systems.

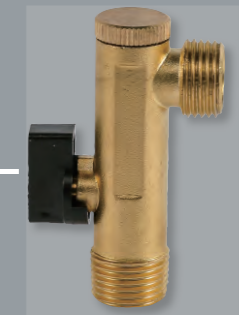
## NTP Series Drain Valve



**NCP-PA68**  
Auto drain trop



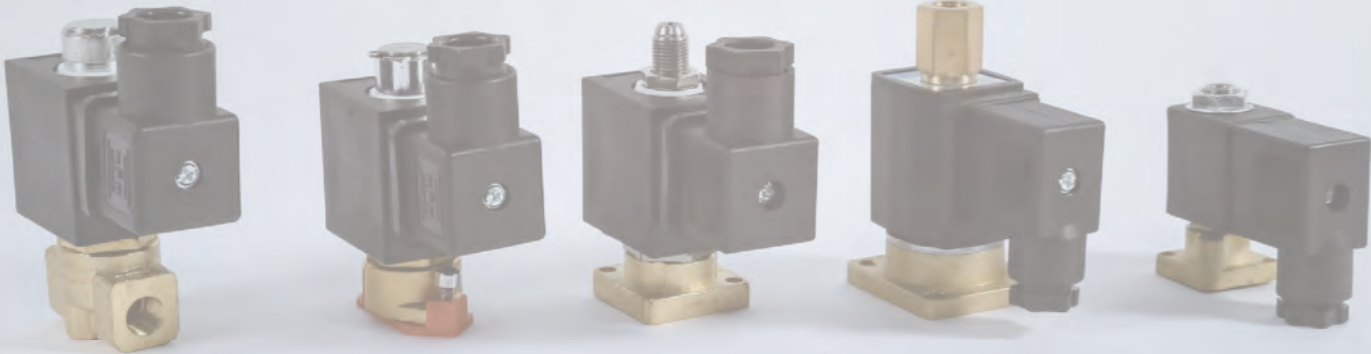
**NCP-402**  
Auto drain valve



**NCP-22**  
Ball valve

**NCP-20**  
Timer drain with integrated strainer

Drain Valve For Air Compressor



NCP-01



NCP-02



NCP-03



NCP-04



NCP-05

# NOTE

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