

## ПРЕДПРИЯТИЕ МАКСАЭРО

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220056, г. Минск, ул. Стариновская, 15

Тел./факс: +375 17 244-67-44, 258-67-51, 347-73-56, 252-54-27

Velcom: +375 29 603-88-99

E-mail: olegaero@yandex.by

www.maxaero.by



# Электромагнитные клапаны ХСРС серии ТНР дополнительные характеристики



## 2 Position 2 Way Solenoid Valves

This kind of valve widely used in wide different industry, you can find the valve with different material like brass, stainless steel, engineering plastic, and they are used for pressure range from 0 to 50 bar, temperature from -10 °C to 180°C. If there is no current models with your meet, please contact us, we are available to provide specialized valves according to your requirement.



## General Information About Solenoid Valve

Inner structure and categories of two way solenoid valves 

### Direct acting solenoid valves

Including normal close style (N.C.) and normal open style(N.O.). The N.C. style solenoid valve stay close at power off condition. When power on, the coil yields electricity-magnetic force, which exceed the spring force and hence pulls active armature approaching to static armature, the valve becomes open; when power off, the electricity-magnetic force disappear and the active armature go back to its original place by the spring force, the valve close. The N.O. style is just opposite. These valve are normally simple structure, dependable action, fast response, high, frequency and with ≤6mm small orifice size(N.O. style ≤4mm ).

### Diaphragm pilot solenoid valves

This style valve makes main valve and pilot valve together, when power on, the coil yields electricity-magnetic force pulls active armature approaching to static armature, the pilot valve open and control the main valve to open; when power off, the electricity-magnetic force disappear and with the gravity and spring force, the active armature close the pilot valve, which control the main valve to close. The N.O. style is just opposite. These valve are normally with bigger orifice size and ≤10Bar working pressure and with zero differential working pressure.

### Piston pilot solenoid valves

Similar with piston pilot solenoid valves, but supports for higher pressure and temperature, with ≥1 Bar differential working pressure.

Seal Features 

Material	NBR	HNBR	EPDM	VMQ	FKM	PTFE	PU
Medium Applicability							
Highest working temperature	80℃	120℃	120℃	180℃	120℃	200℃	80℃
Lowest working temperature	-5℃	-10℃	-20℃	-40℃	-20℃	-50℃	-20℃
Anti-burning	×	×	×	△	⊙	⊙	△
Steam	×	△	⊙	○	△	○	×
Oil	⊙	⊙	×	△	⊙	⊙	⊙
O <sub>3</sub>	△	⊙	⊙	⊙	⊙	⊙	⊙
Chemical	△	○	⊙	⊙	⊙	⊙	⊙
Acid	△	○	⊙	△	⊙	⊙	×
Alkalinity	○	⊙	⊙	△	⊙	⊙	×
Water	○	○	⊙	○	○	⊙	⊙
Wearing	○	⊙	○	×	○	⊙	⊙
Anti distortion	○	○	○	⊙	○	×	×
Tension	⊙	⊙	⊙	×	○	×	⊙

Description of the symbol: ⊙ Very good ○ Good △ Normal level × Not OK

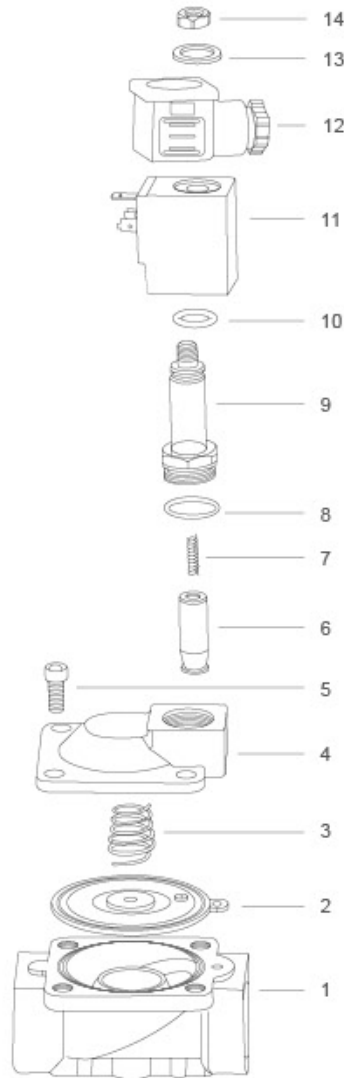


## General Information About Solenoid Valve

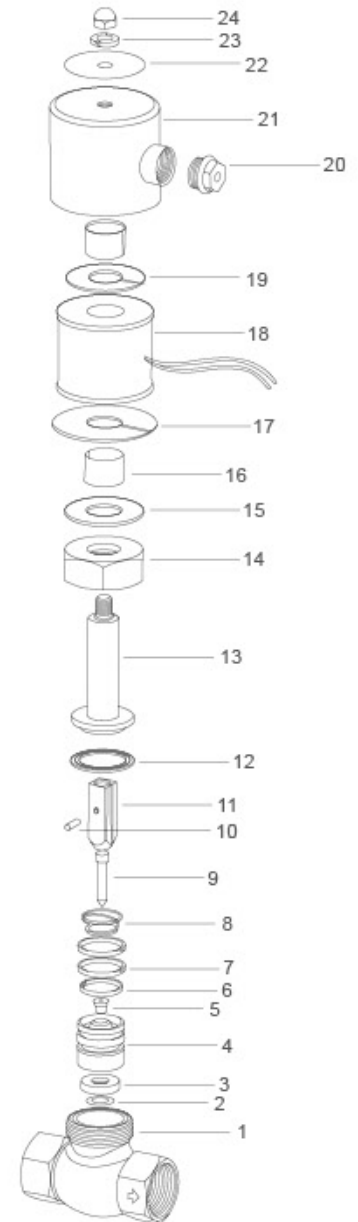
Part List 



No	Designation
1	Valve body
2	O-ring
3	Seal pad
4	Pilot
5	Spring
6	Armature
7	Coil
8	Steel washer
9	Washer
10	Spring washer
11	Nut



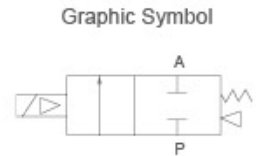
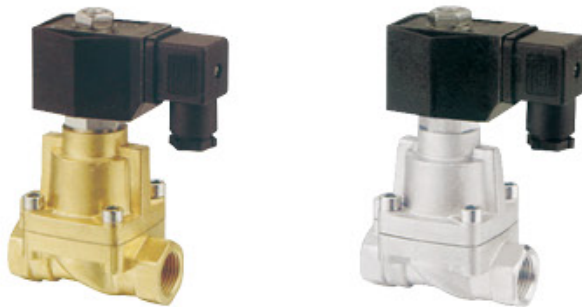
No	Designation
1	Valve body
2	Diaphragm
3	Diaphragm spring
4	Valve cover
5	Hexagon screw
6	Pilot units
7	Plunger Spring
8	O-ring
9	Plunger tube assembly
10	O-ring
11	Coil
12	Connector
13	Gasket
14	Lock Nut



No	Designation	No	Designation
1	Valve body	13	Static armature
2	Washer	14	Nut
3	Seal pad	15	Gasket
4	Valve core	16	Bushing
5	Seal	17	Steel plate
6	Gasket	18	Coil
7	Guide ring	19	Steel plate
8	Spring	20	Nut
9	Valve needle	21	Steel cover
10	Pin	22	Min plate
11	Armature	23	Spring washer
12	Seal ring	24	Nut



**THP Series 2/2 Solenoid Valve(Normal Close)**



Ordering Code

THP Series	06	E2	□	2.5L	S2	□	□
<b>Port Size</b>	06: G1/8" 08: G1/4" 10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 35: G1-1/4" 40: G1-1/2" 50: G2" 25F: 1" Flange 35F: 1-1/4" Flange 40F: 1-1/2" Flange 50F: 2" Flange	<b>Voltage</b> E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	<b>Seal Material</b> T: Teflon V: VITON(N,V,E orifices≤Φ5.5mm optional)	<b>Orifice(mm)</b> 2.5L: 2.5 4.5L: 4.5 15L: 15.0 20L: 20.0 25L: 25.0 35L: 35.0 40L: 40.0 50L: 50.0	<b>Body material</b> Blank: Brass S1: SS316 S2: SS304	<b>Control style</b> Blank: Normal close H: Normal open	<b>Coil type</b> Blank: DIN connector F: Flying leads

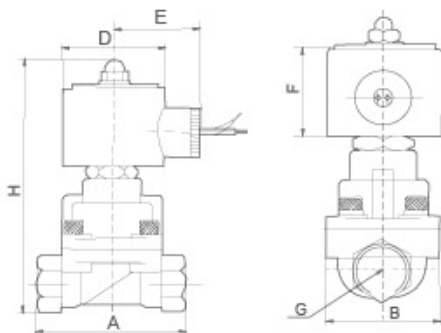
*Cancel if same with port size*

- THP series, 2 port, 2 position, 1/8" port size, AC110V, NBR Seal, Orifice: 2.5mm, Brass valve body, normal close, DINcoil, model: THP06E1-2.5L
- THP series, 2 port, 2 position, 3/8" port size, AC220V, teflon Seal, Orifice: 15mm, SS304 valve body, normal open, flying leads coil, model: THP10TE2-15LS2HF

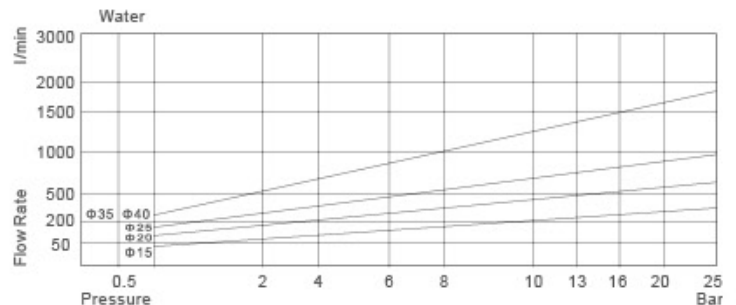
Product Features

- Normal Close, available body: brass, SS304, SS316
- Multiple seals are available for different medium
- Wide size range from 1/8" to 2"
- DIN style / flying leads coil, thread / flange connection
- Piston pilot solenoid valve with high working pressure and temperature

Overall Dimensions



Flow Chart



## THP Series 2/2 Solenoid Valve(Normal Close)

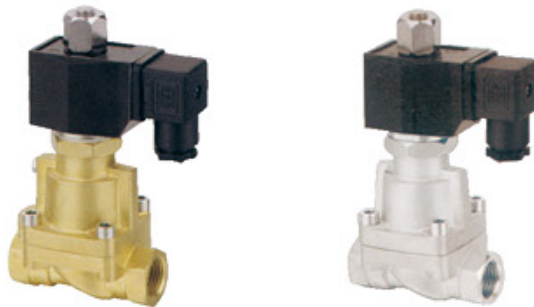
Specification 

Port size (G)	Orifice (mm)	CV value	Pressure difference(Bar)								Max. temperature (°C)	Power		Model		Overall dimension	
			Min. pressure	Max. working pressure						AC 220		DC 24V	220VAC	50/60Hz			
				Air	Gas	Water, Hot water, Liquid		Light oil ≤20CST							Steam	Brass	Stainless steel
						AC	DC	AC	DC								
G1/8"	2.5	0.23	0	8	8	8	8	6	6	10	180	22	13	THP06T-2.5L	-	48×25×85.5	
	2.5	0.23	0	13	13	13	13	7	7	10	110	22	13	THP06V-2.5L	-	48×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	165	22	13	THP06T-4.5L	-	58×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	110	22	13	THP06V-4.5L	-	58×25×85.5	
G1/4"	2.5	0.23	0	7	4	7	4	4	4	10	180	22	13	THP08T-2.5L	-	48×25×85.5	
	2.5	0.23	0	13	13	13	4	7	7	10	110	22	13	THP08V-2.5L	-	48×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	165	22	13	THP08T-4.5L	-	58×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	110	22	13	THP08V-4.5L	-	58×25×85.5	
G3/8"	15	4.5	0.5	25	20	25	20	20	20		110	33	32	THP10T-15L	THP10T-15LS2	75×52×129	
	15	4.5	0.5	25	20	25	20	20	20	10	185	30	25	THP10T-15LF	THP10T-15LS2F	75×52×129	
G1/2"	15	4.5	0.5	25	20	25	20	20	20		110	33	32	THP-15T	THP-15TS2	75×52×129	
	15	4.5	0.5	25	20	25	20	20	20	10	185	30	25	THP-15TF	THP-15TS2F	75×52×129	
G3/4"	20	9.0	0.5	25	20	25	20	20	20		110	33	32	THP-20T	THP-20TS2	85×60×141	
	20	9.0	0.5	25	20	25	20	20	20	10	185	30	25	THP-20TF	THP-20TS2F	85×60×141	
G1"	25	13	0.5	25	20	25	20	20	20		110	33	32	THP-25T	THP-25TS2	100×70×148	
	25	13	0.5	25	20	25	20	20	20	10	185	30	25	THP-25TF	THP-25TS2F	100×70×148	
G1-1/4"	35	26	0.5	25	20	25	20	20	20	10	110	33	32	THP-35T	THP-35TS2	120×90×168	
	35	26	0.5	25	20	25	20	20	20		185	30	25	THP-35TF	THP-35TS2F	120×90×168	
G1-1/2"	35	26	0.5	25	20	25	20	20	20	10	110	33	32	THP40T-35L	THP40T-35LS2	120×90×168	
	35	26	0.5	25	20	25	20	20	20		185	30	25	THP40T-35LF	THP40T-35LS2F	120×90×168	
G2"	50	48	0.5	25	20	25	20	20	20		110	33	32	-	THP-50TS2	150×110×190	
	50	48	0.5	25	20	25	20	20	20	10	185	30	25	-	THP-50TS2F	150×110×190	
G1" Flange	25	13	0.5	25	20	25	20	20	20		110	33	32	-	THPPFT-25LS2	134×110×185	
	25	13	0.5	25	20	25	20	20	20	10	185	30	25	-	THPPFT-25LS2F	134×110×185	
G1-1/4" Flange	35	26	0.5	25	20	25	20	20	20		110	33	32	-	THPFT-35LS2	160×135×200	
	35	26	0.5	25	20	25	20	20	20	10	185	30	25	-	THPFT-35LS2F	160×135×200	
G1-1/2" Flange	35	26	0.5	25	20	25	20	20	20		110	33	32	-	THPFT-40LS2	160×145×205	
	35	26	0.5	25	20	25	20	20	20	10	185	30	25	-	THPFT-40LS2F	160×145×205	
G2" Flange	50	45	0.5	25	20	25	20	20	20	10	110	33	32	-	THPFT-50LS2	200×155×250	
	50	45	0.5	25	20	25	20	20	20		185	30	25	-	THPFT-50LS2F	200×155×250	

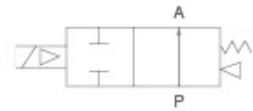


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**THP Series 2/2 Solenoid Valve(Normal Open)**



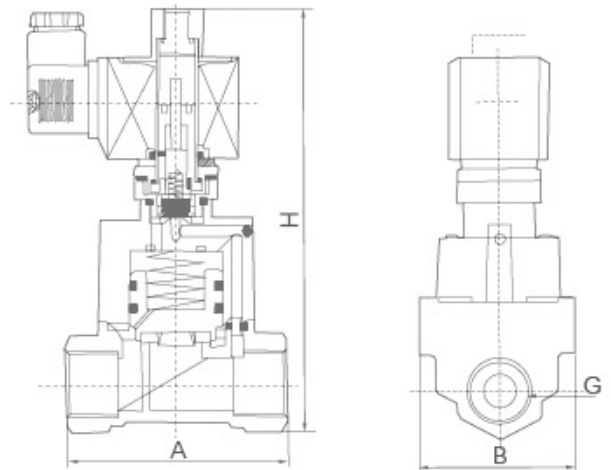
Graphic Symbol



**Product Features**

- Normal open, available body: brass, SS304, SS316
- Multiple seals are available for different medium
- Wide size range from 1/8" to 2"
- DIN style / flying leads coil, thread / flange connection
- Piston pilot solenoid valve with high working pressure and temperature

**Overall Dimensions**



**Specification**

Port size (G)	Orifice (mm)	CV value	Pressure difference (Bar)					Max. temperature (°C)	Power		Model		Overall dimension Length x Width x Height A x B x H (mm)
			Min. pressure	Max. working pressure					VA AC 220	W DC 24V	220VAC	50/60Hz	
				Air	Gas	Water, Hot water, Liquid	Light oil ≤20CST						
3/8"	15	4.5	0.5	8	8	8	8	130	33	32	THP10T-15LH	THP10T-15LS2H	75x52x147
	15	4.5	0.5	8	8	8	8	130	33	32	THP10T-15LHF	THP10T-15LS2HF	75x52x147
1/2"	15	4.5	0.5	8	8	8	8	130	33	32	THP-15TH	THP-15TS2H	75x52x147
	15	4.5	0.5	8	8	8	8	130	33	32	THP-15THF	THP-15TS2HF	75x52x147
3/4"	20	9	0.5	8	8	8	8	130	33	32	THP-20TH	THP-20TS2H	85x60x159
	20	9	0.5	8	8	8	8	130	33	32	THP-20THF	THP-20TS2HF	85x60x159
1"	25	13	0.5	8	8	8	8	130	33	32	THP-25TH	THP-25TS2H	100x70x166
	25	13	0.5	8	8	8	8	130	33	32	THP-25THF	THP-25TS2HF	100x70x166
1-1/4"	35	26	0.5	6	6	6	6	130	33	32	THP-35TH	THP-35TS2H	120x90x186
	35	26	0.5	6	6	6	6	130	33	32	THP-35THF	THP-35TS2HF	120x90x186
1-1/2"	35	26	0.5	6	6	6	6	130	33	32	THP40T-35LH	THP40T-35LS2H	120x90x186
	35	26	0.5	6	6	6	6	130	33	32	THP40T-35LHF	THP40T-35LS2HF	120x90x186
1"	25	25	0.5	8	8	8	8	130	33	32	-	THP-25FE2TS2H	134x110x200
Flange	25	13	0.5	8	8	8	8	130	33	32	-	THP-25FE2TS2HF	134x110x200
1-1/4"	35	26	0.5	6	6	6	6	130	33	32	-	THP-35FE2TS2H	160x134x215
Flange	35	26	0.5	6	6	6	6	130	33	32	-	THP-35FE2TS2HF	160x134x215
1-1/2"	40	26	0.5	6	6	6	6	130	33	32	-	THP-40FE2TS2H	160x145x200
Flange	40	26	0.6	6	6	6	6	130	33	32	-	THP-40FE2TS2HF	160x145x200