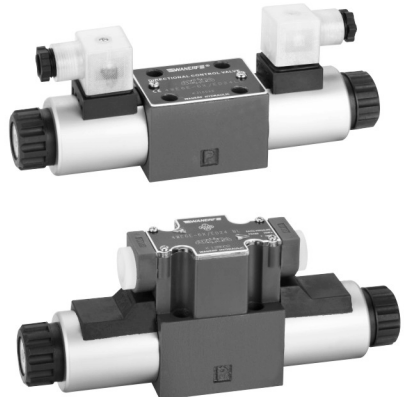


WE6-6X series wet-type solenoid operated directional valves

[Product Features]

- 1.Direct-acting solenoid operational direction valve as standard type.
- 2.Installation area by DIN24 340 type A
- 3.DC or AC wet-type solenoid that can be arbitrary rotation and with detachable coil.
- 4.Coil can be replaced without oil.
- 5.Equipped with manual emergency operation push rod.



【 Model Code 】

4	WE	6	E	6X		E	D24	N	L			L
---	----	---	---	----	--	---	-----	---	---	--	--	---

3channel=3
4channel=4

Solenoid Operated
Directional Valves

Drift diameter :
3=3diameter

Function Symbol:

60~69 series =6X
(60~69: installation and linking
size remains the same)

O=no spring-return
OF=no spring-return, with positioning
Spring return unmarked

Solenoid thread linkage: =E

D12 D24=DC12V 24V
A110 A220=RC110V/50Hz 220V/50Hz
R110 R220=RAC110V 220V

With self-locking manual emergency put rod = NP

H: DIN43650 plug
L: DIN43650 plug (with lamp)
F: DEUTSCH, protection class IP69K/Deutsch
A: AMP plug, protection class IP67/AMP Junior-Timer
D:double lines
B:Terminal box

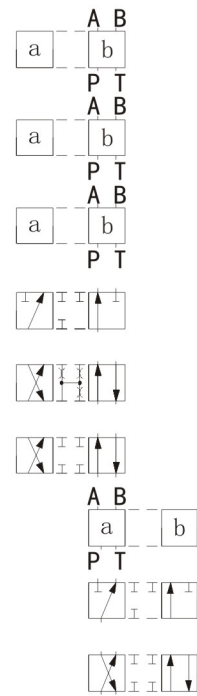
No marks = no cartridge choke
B08=orifice Φ 0.8mm
B12=orifice Φ 1.0mm
B12=orifice Φ 1.2mm

Nitrile rubber seal = no mark
V=Fluorine rubber sealing ring

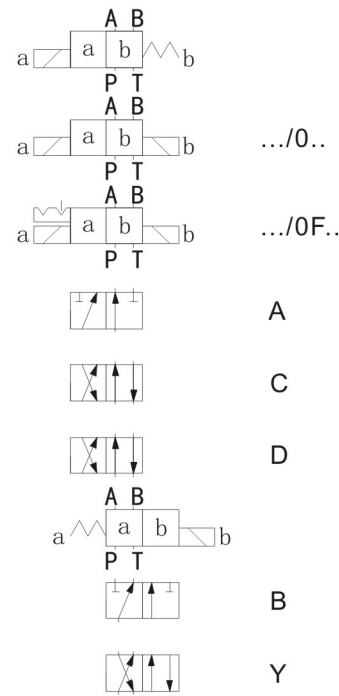
The valve body coating
H: black
L: blue

【 SPOOL SYMBOLS 】

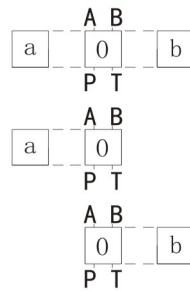
TRANSITION SPOOL



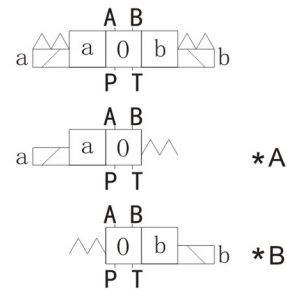
SLIDE VALVE SPOOL



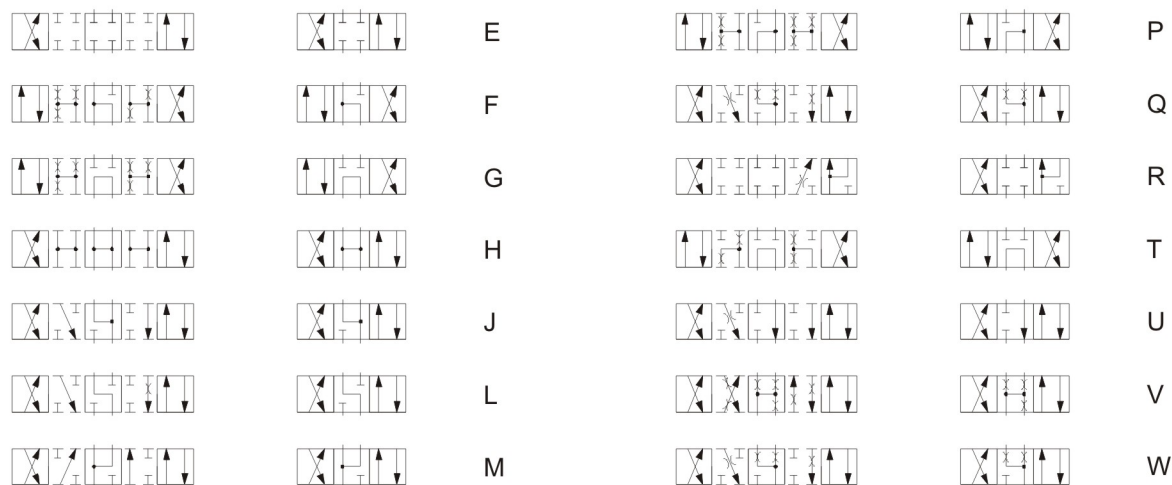
transition spool



slide valve spool



☆ Spool symbol with core a or b then code should be XA or XB
For example : spool E with core position a , then code should be EA



【 Technical Data 】

General data

Mounting position	optional		
Operating temperature	℃	-30~+50 (nitrile rubber seal)	
		-20~+50 (rubber seal)	
weight	Single solenoid valve	kg	1.45
	Double solenoid valve	kg	1.95

Hydraulic Data

Maximum operating voltage fluid port P、A、B	MPa	31.5	
Hydraulic fluid port	MPa	21 (DC) ; 16 (AC) When working pressure exceeds the allowable pressure, valves with the sign bit A,B must use T as oil drain port	
Maximum flow rate	l/min	80 (DC) ; 60 (AC)	
Flux areas (when in the median)	Type Q	mm ²	About 6% of the nominal cross-sectional area
	Type W	mm ²	About 6% of the nominal cross-sectional area
Hydraulic oil 1、 suitable for nitrile rubber and fluoro rubber seal 2、 Fluoro seal only			Mineral oil (HL,HLP) by DIN51 524 Rapid biological solution oil by VDMA24 568 HETG 1) ; HEPG 2) ;HEES 3)
The oil temperature range	℃	-30~+80 (nitrile rubber seal) -20~+80 (rubber seal)	
Viscosity range	mm ² /s	2.8-500	
Oil cleanliness		The highest oil pollution level by NAS1639 Class 9 recommend minimum filter filtration precision β10≥75	

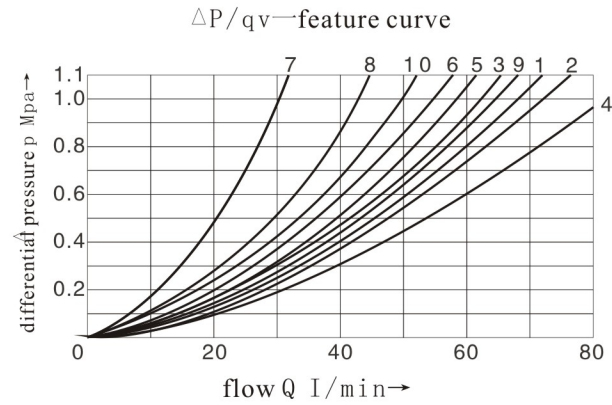
Electric data

Voltage category		DC	AC(50HZ)
Supply voltage	V	12, 24, 48, 110, 220	110 220
Allowable voltage tolerance	%	+10~-15	+10~-15
Power consumption	W	30	-
Holding current	A	-	0.27(220V)
Starting current	A	-	0.72(220V)
Working system	ED%	100	100
Reversing time	ms	125~145	10~20
Resetting time	ms	100~250	15~40
Switching time	times/h	≤15000	≤7200
Protection class by DIN 40050		IP65(AMP: IP66)	(Deutsch:IP69k)
Maximum coil temperature	℃	135℃ (Class B)	180℃(Class H)

NOTICE: 1) Grounding according to the provision when connecting electricity to protect wires.
2) The reversing time of RAC is close to DC , but the resetting time is longer and random.

【feature curve】

(testing result on basis of that when $v=41\text{mm/s}$ & $t=50^\circ\text{C}$)



- Curve 7 : spool type“R”is in switch position A→B
- Curve 8 : spool type“G”and “T” are in median position P→T
- Curve 9 : spool type“H”is in median position P→T

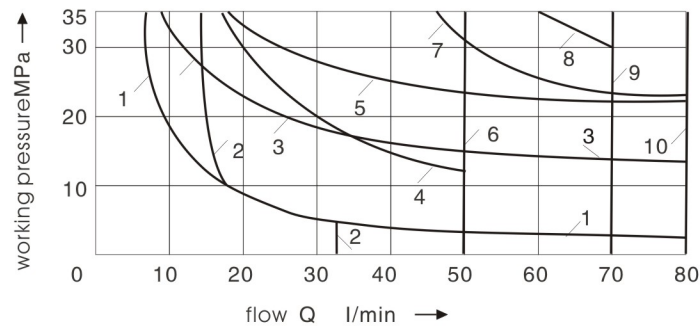
spool symbol	flow direction			
	P-A	P-B	A-T	B-T
A,B	3	3	-	-
C	1	1	3	1
D,Y	5	5	3	3
E	3	3	1	1
F	1	3	1	1
T	10	10	9	9
H	2	4	2	2
J,Q	1	1	2	1
L	3	3	4	9
M	2	4	3	3
P	3	1	1	1
R	5	5	4	-
V	1	2	1	1
W	1	1	2	2
U	3	3	9	4
G	6	6	9	9

【switching performance limit】

(testing result on basis of using HLP46, $t=50^\circ\text{C}$)

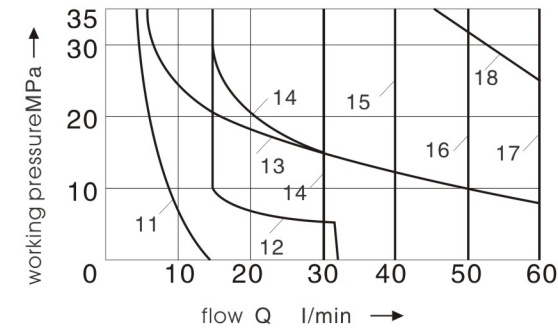
- 1.The working limit can be used for both the two flow direction (For example: Flow return from B to T, at the same time, flow from P to A)
- 2.Power limit tested when solenoid is at working temperature, under voltage 10%, and port T have no back pressure.
- 3.When unidirectional flow (if it was clogged from P to A, B port) , due to the fluid power in the valve, the allowed switching limit may drop.

DC solenoid		AC solenoid-50Hz		AC solenoid-60Hz	
curve	symbol	curve	symbol	curve	symbol
1	A,B	11	A,B	19	A,B
2	V	12	V	20	V
3	A,B	13	A,B	21	A,B
4	F,P	14	F,P	22	F,P
5	J	15	G,T	23	G,T
6	G,H,T	16	H	24	J,L,U
7	A/O,A/OF,L,U	17	A/O,A/OF,C/O	25	A/O,A/OF,Q,W
8	C,D,Y		C/OFD/O,/D/OF,	26	C,D,Y
9	M		E,J,LM	27	H
10	E,R,C/O,C/OF	18	Q,R2,U,W	28	C/O,C/OF,D/C,
	D/O,D/OF,Q,W		C,D,Y		D/OF,E,M,R2

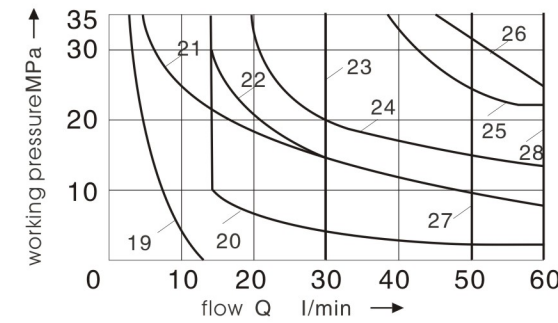


- Notice: 1) with emergency operation
2) flow from actuator components back to tank

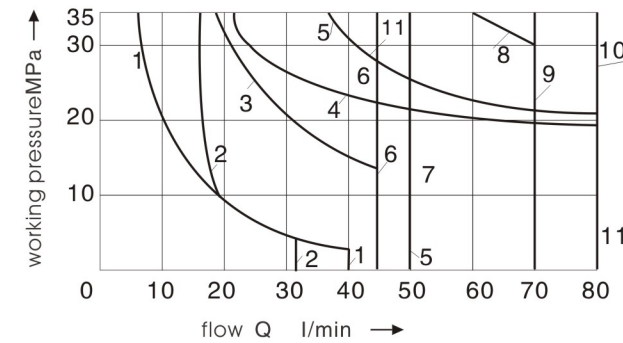
DC solenoid	
feature curve	solenoid voltage
1~10	12, 24, 48, 96, 110



AC solenoid		
feature curve	power source voltage	
11~18	AC110	110V,50Hz
	AC220	220V,50Hz



AC solenoid		
feature curve	power source voltage	
19~28	AC110	110V,50Hz
	AC220	220V,50Hz

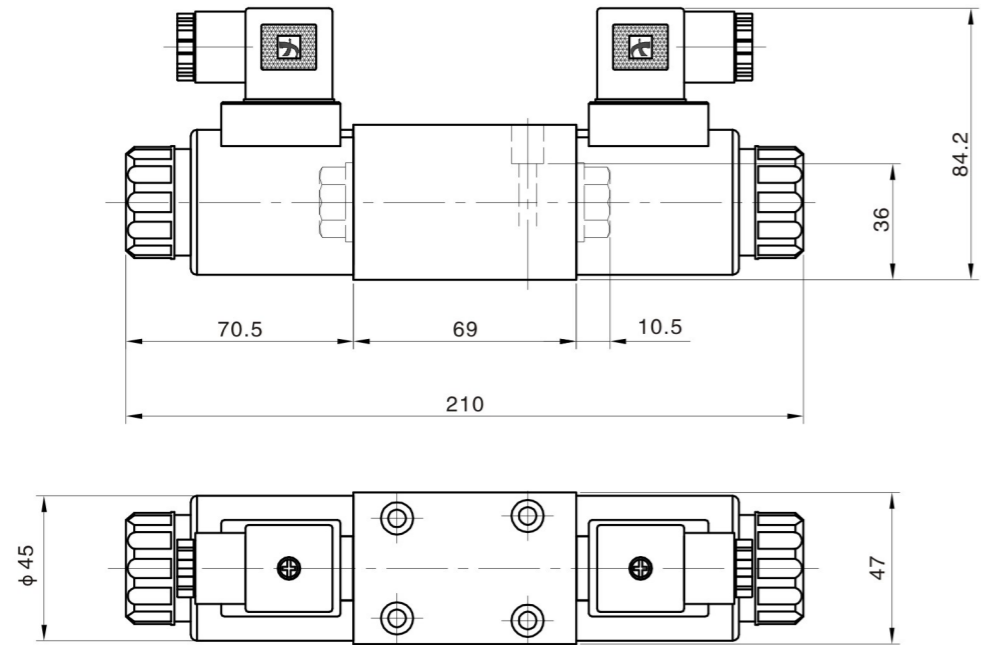


DC solenoid	
feature curve	power source voltage
1~10	DC110V

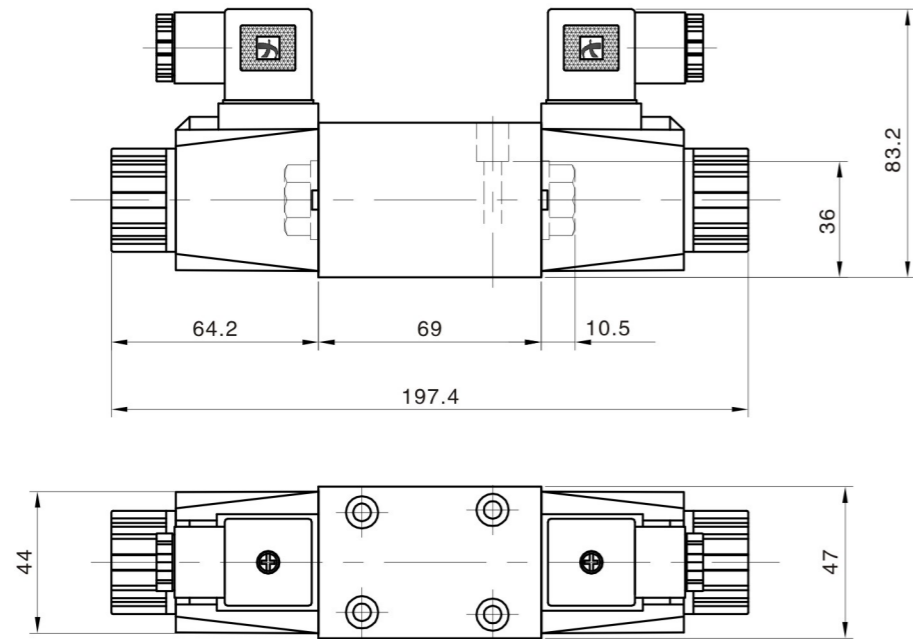
curve	symbol
1	A, B
2	V
3	F, P
4	J, L, U
5	G
6	T
7	H
8	C, D
9	M
10	E, R, C/O, C/OF, D/O, D/OF, Q, W, E1
11	A/O, A/OF
12	E

【 drawing of installation dimension 】

4WE6-DC-H

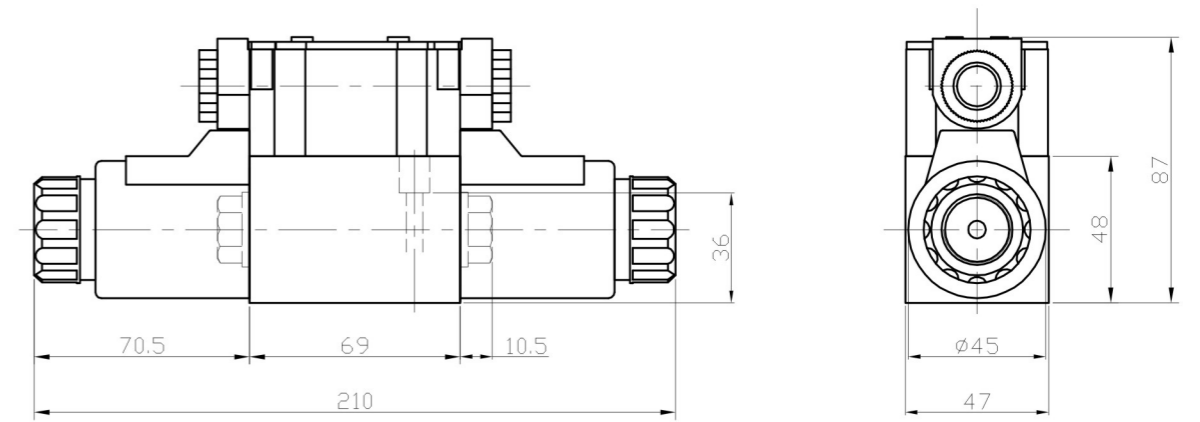


4WE6-AC-H

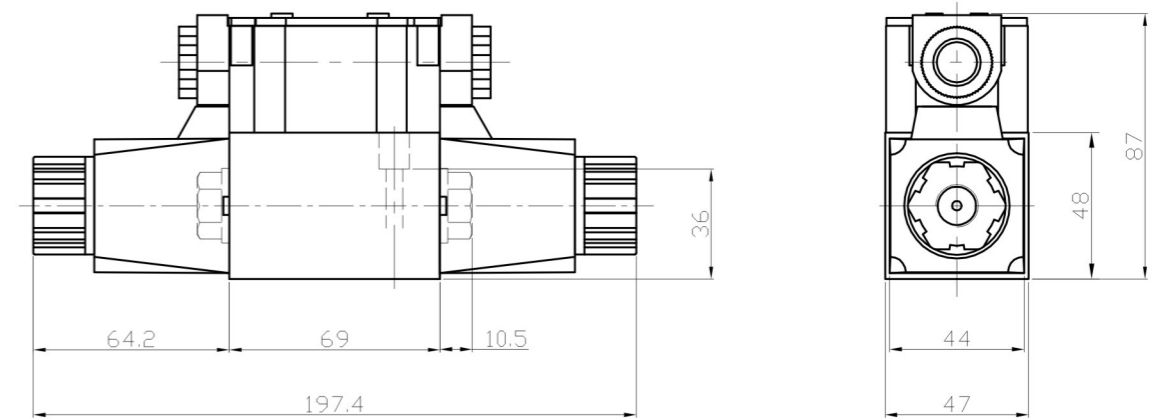


【 drawing of installation dimension 】

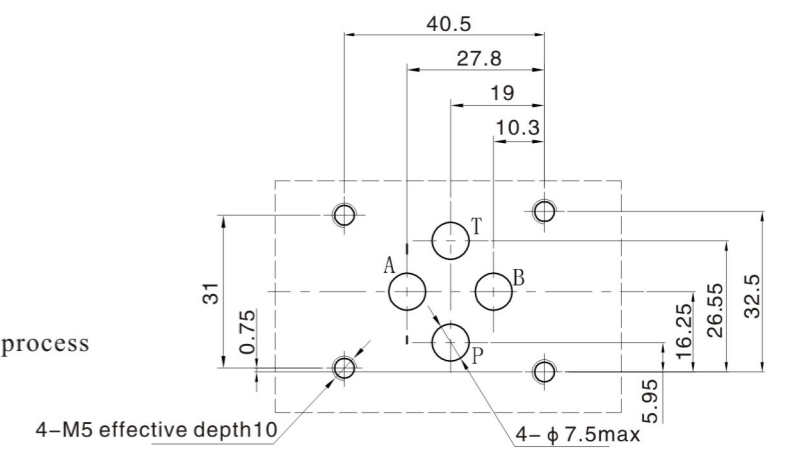
4WE6 E-D24-B



4WE6 E-A220-B

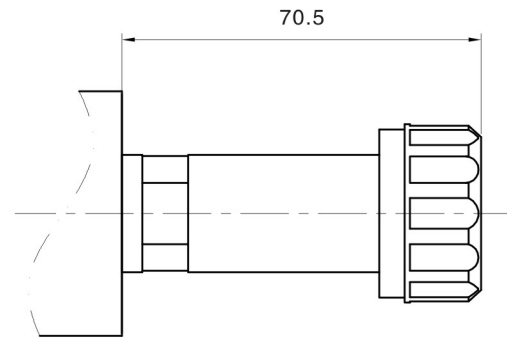


0.01/100mm
0.8
the surface of mating parts request precision process



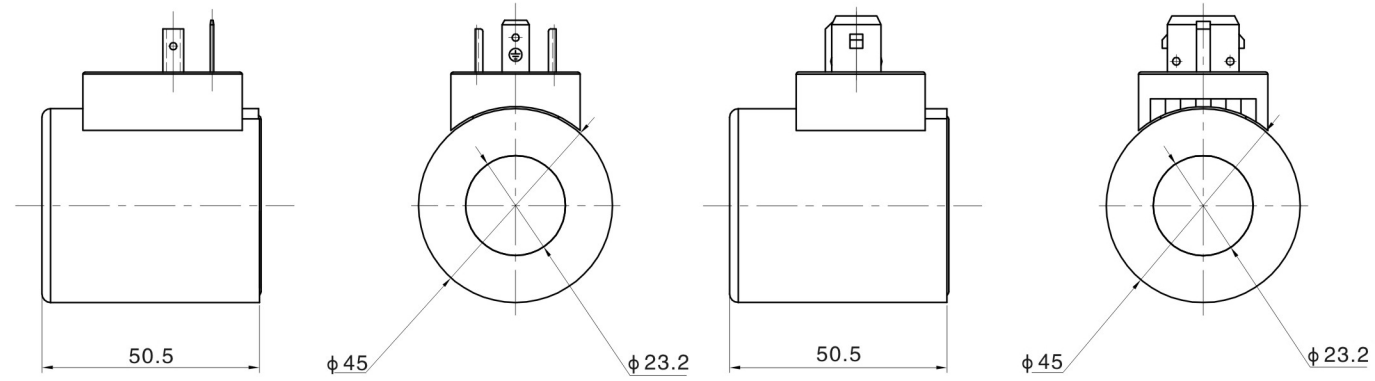
【 option of electronic connector 】

Without coil, fastening the tube and locknut on the homologous valve body, according to the different IP grade, then choose the coil with homologous structure.



Coil with connector meets
DIN43650EN175301-803 ISO4400

Coil with connector AMP, the IP grade of coil house is IP67



coil with connector
DEUTSCH DT04-2P, the IP grade of coil house is IP-69K

apply to pin type coil with connection type B

