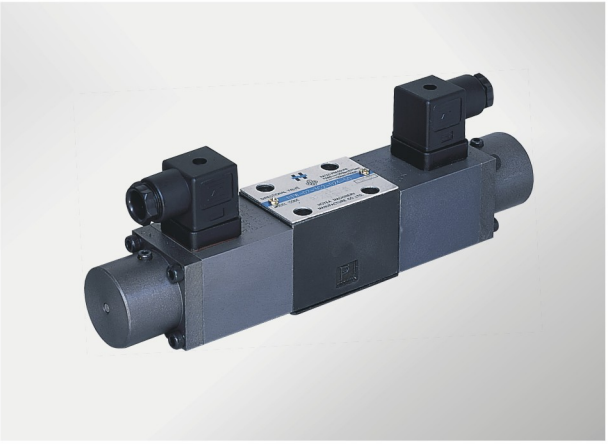
Proportional directional valve

Technical specification



This product is a direct-action valve with one or two proportional solenoids to control the flow rate and directions in the hydraulic system.

Specification		02	03
Maximum pressure (MPa)		31.5	
Return pressure (MPa)		＜16	
Maximum flow (l/min)		17	50
Hysteresis (%)		6	
Repeatability (%)		＜3	
-3dB Frequency response(Hz)		5	3
Rated current (mA)		800、1500	
Filtration accuracy (um)		≤20	
Hydraulic fluid		Mineral oil, phosphate-ester	
Viscosity (mm^2/s)		2.8~100	
Fluid temp. (^0C)		-20~70	
Coil resistance (Ω)		19.5	
Weight (Kg)	2-Position	1.9	2.6
	3-Position	3.8	4.5
Cleanliness		Filter is recommended for the highest fluid pollution degree;the lowest specific filtration resistance according to ISO 4406 (C) 20/18/15.	

Model instruction

BFW— ＊ — ＊ — ＊ —**50** ＊

Proportional directional valve

Specification
02 DN 6
03 DN 10

Symbol

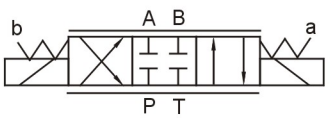
Remarks

Design serial number

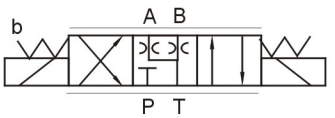
Nominal flow
(based on 1MPa pressure drop)
02 Specification 8 8 l/min
13 13 l/min
17 17 l/min
03 Specification 18 18 l/min
27 27 l/min
50 50 l/min

Code symbol

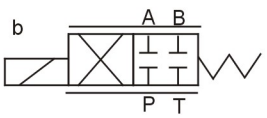
3C2
3C2 (1)



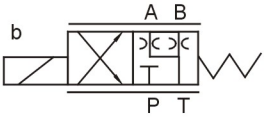
3C40
3C40 (1)



2B2B



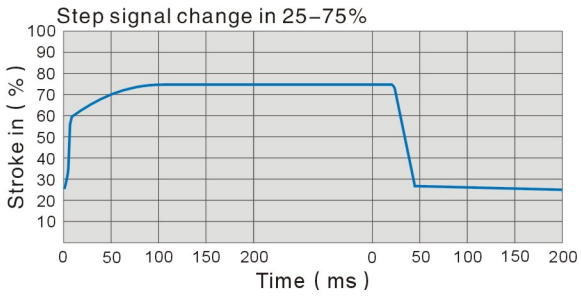
2B40B

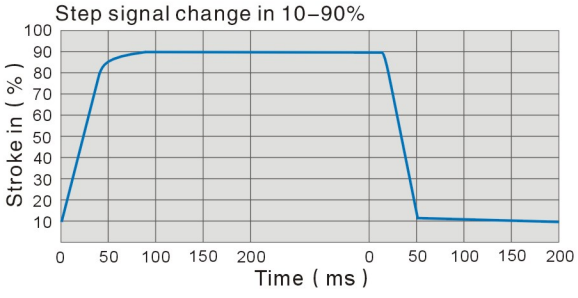


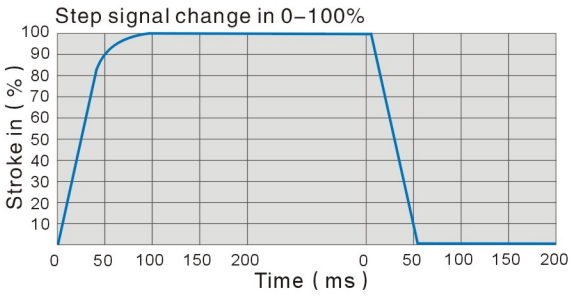
For functional symbol 3C2(1) and 3C40(1)
P → A: Qvmax B → T: Qvmax/2 P → B: Qvmax/2 A → T: Qvmax

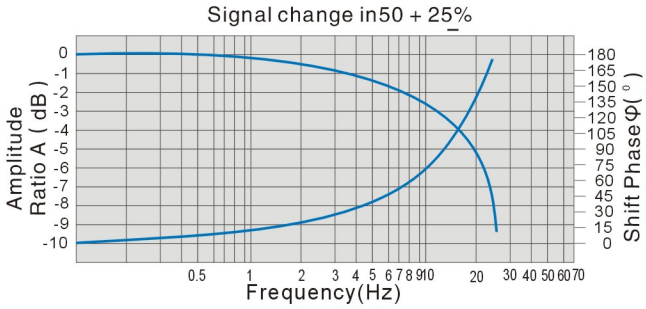
Proportional directional valve

02 Model characteristic curves (Measured at ν =36X10^{-6}m^2/S t=50°C)

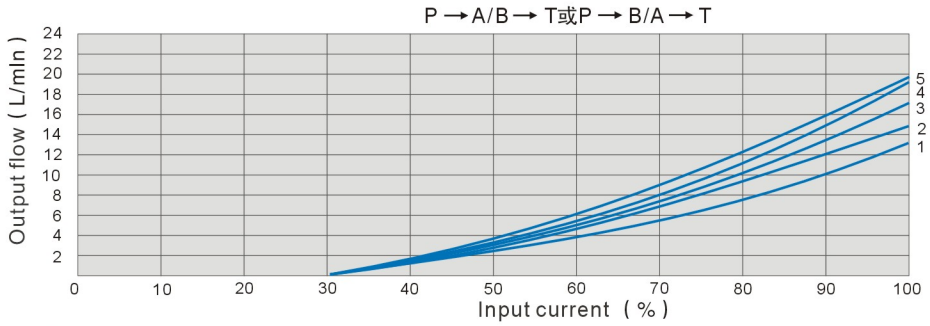




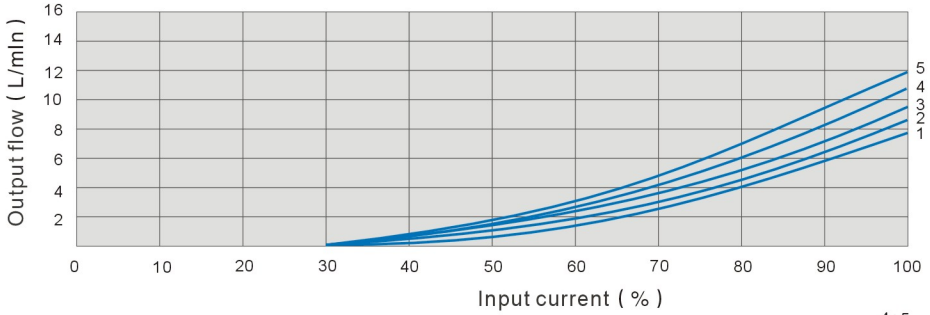




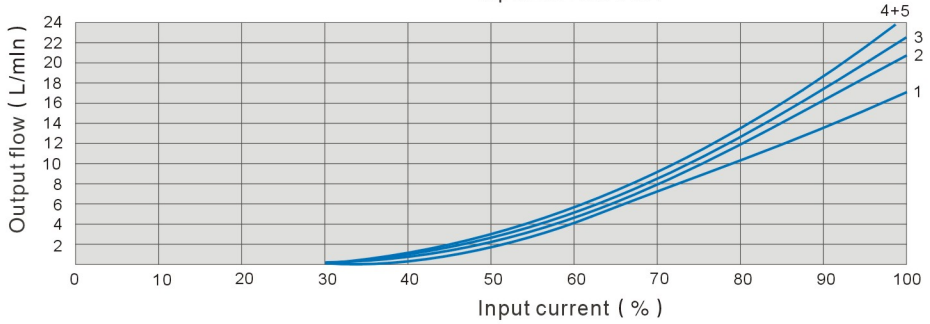
02 Model characteristic curves (Testing Condition ν =36X10^{-6}m^2/S t=50°C)



8L/min nominal flow at differential pressure .
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant



13L/min nominal flow at differential pressure.
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant

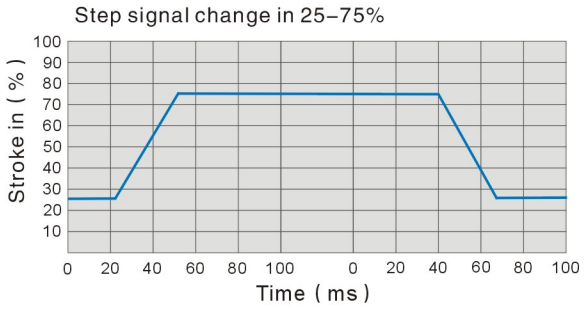


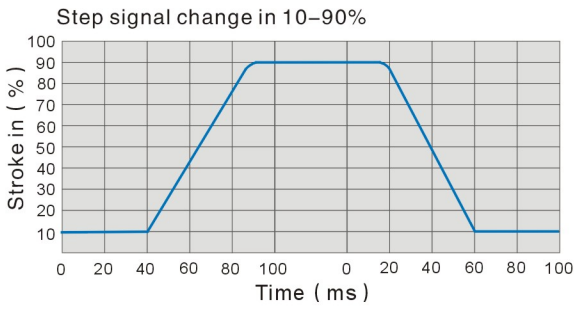
17L/min nominal flow at differential pressure.
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant

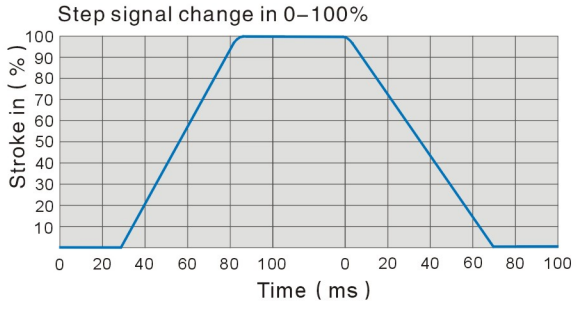
Pv=Valve differential pressure (input pressure minus load pressure and feedback pressure)

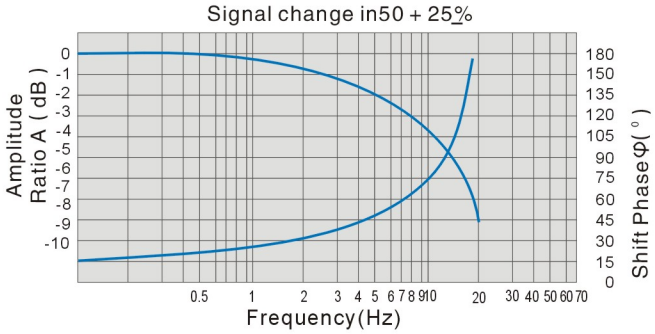
Proportional directional valve

03 Model characteristic curves (Measured at ν =36X10^{-6}m^2/S t=50°C)



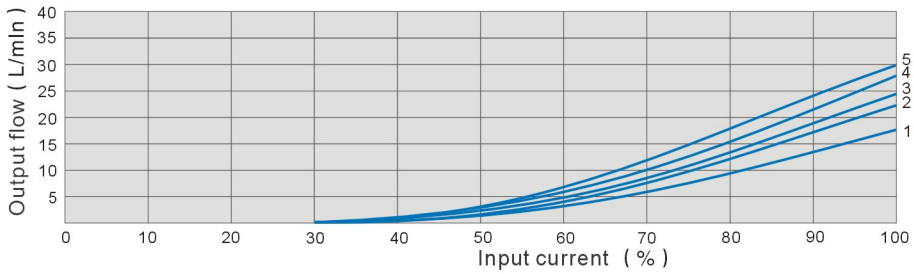




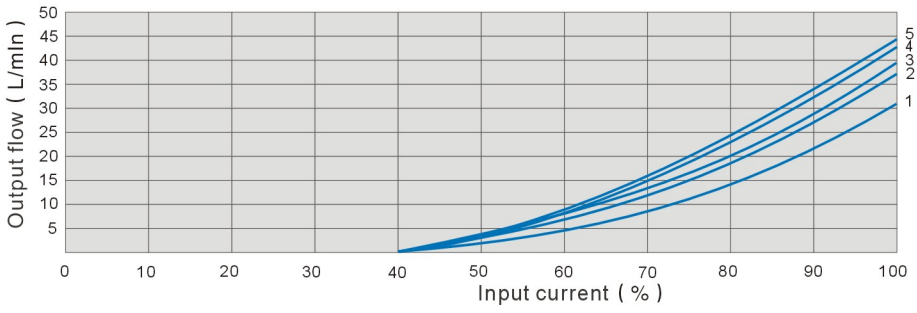


03 Model characteristic curves (Measured at ν =36X10^{-6}m^2/S t=50°C)

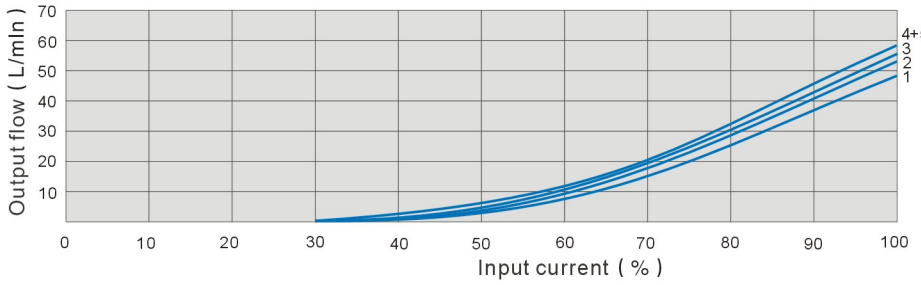
P → A/B → T或P → B/A → T



18L/min nominal flow at differential pressure .
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant



27L/min nominal flow at differential pressure.
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant

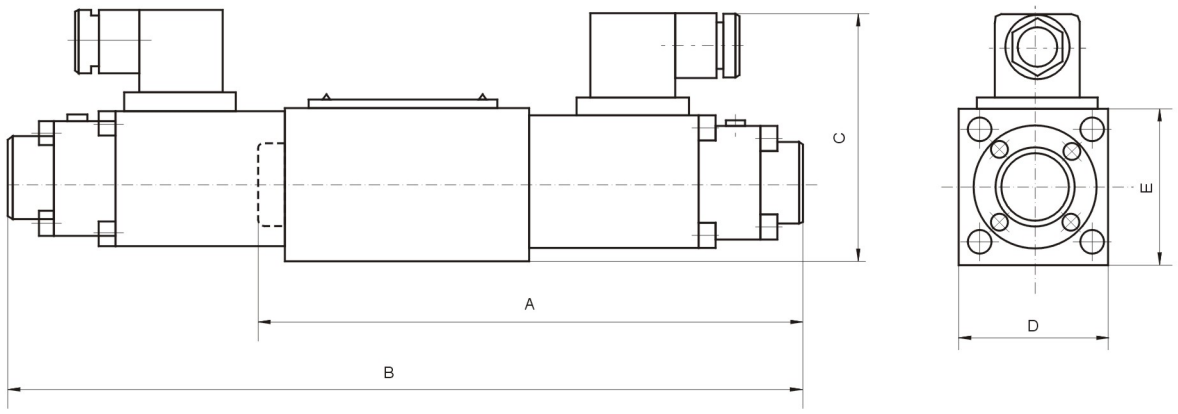


50L/min nominal flow at differential pressure.
1 Pv=1MPa Constant
2 Pv=2MPa Constant
3 Pv=3MPa Constant
4 Pv=5MPa Constant
5 Pv=10MPa Constant

Pv=Valve differential pressure (input pressure minus load pressure and feedback pressure)

Proportional directional valve

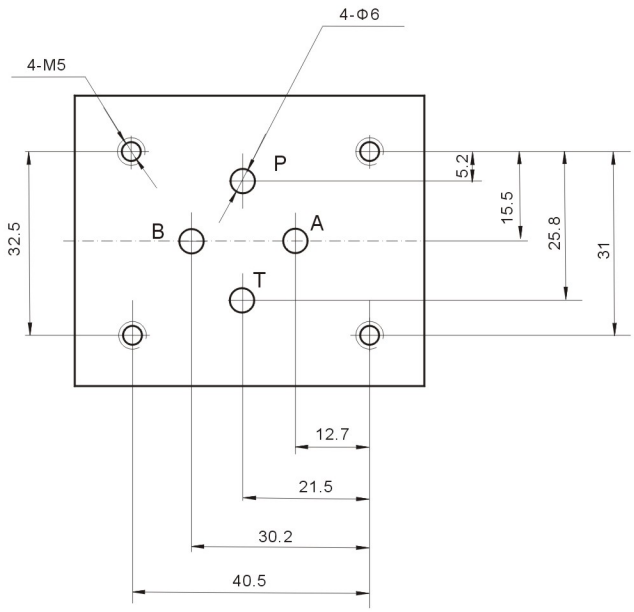
External dimensions



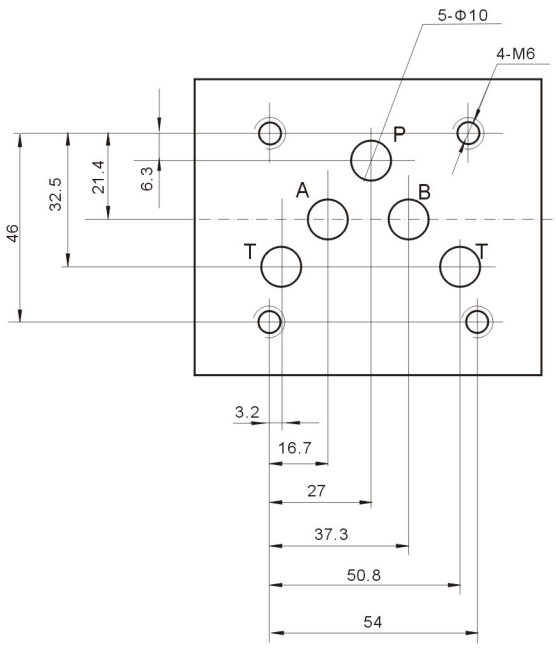
Specification	A	B	C	D	E
BFW-02	171	250	78	47	47
BFW-03	205	285	100	70	68

Plate size

BFW-02



BFW-03



The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.