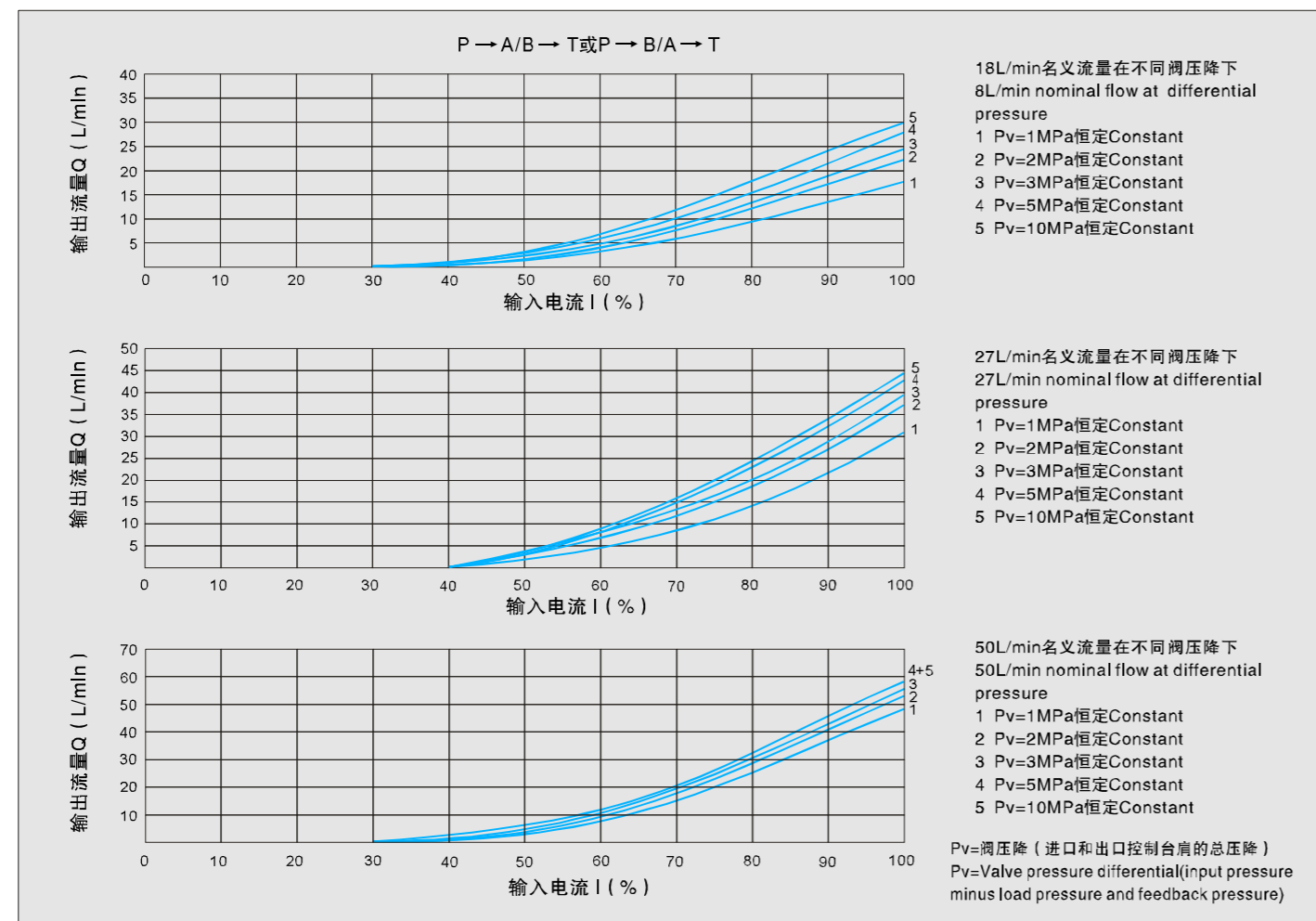
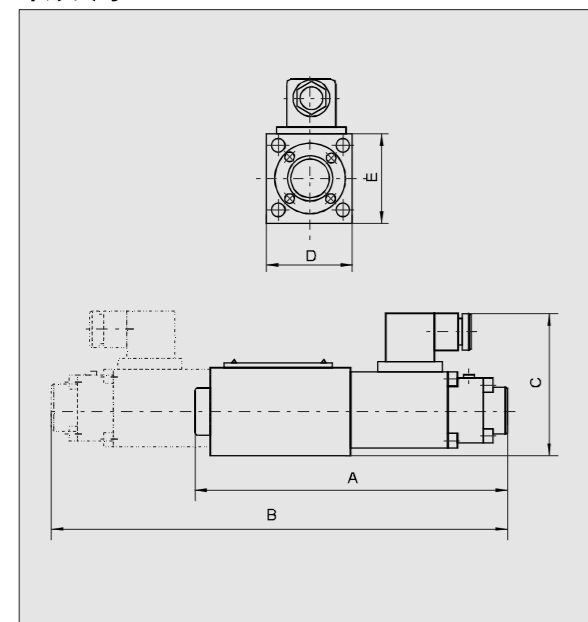


Proportional directional valve

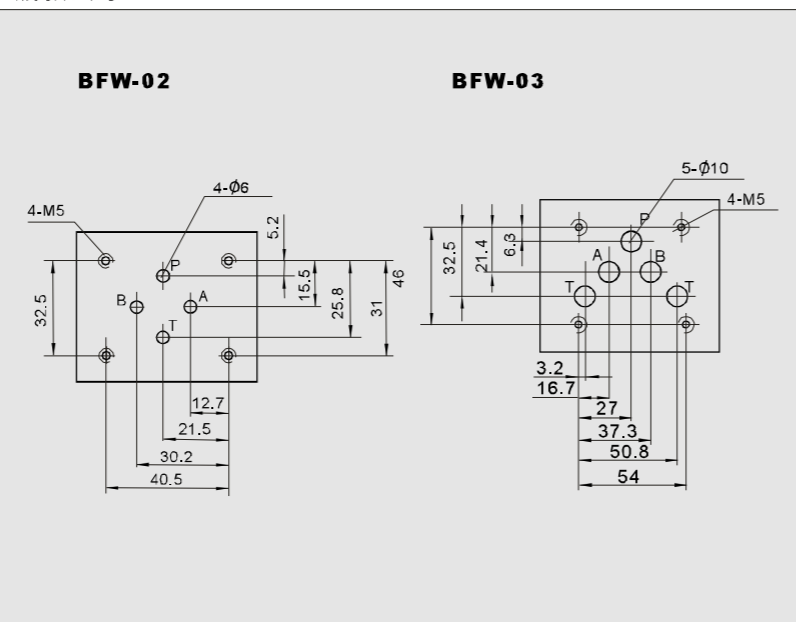
03型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) 03 Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )



外形尺寸 Outside size

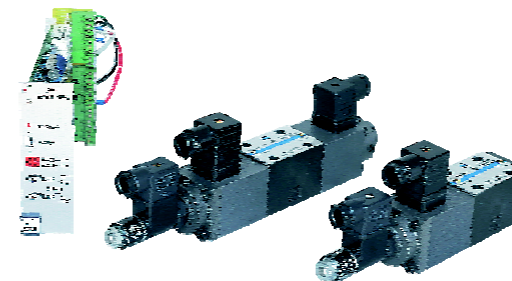


底板尺寸 Plate size



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

Proportional directional valve with feedback



BFFW型阀是由比例电磁铁控制带电反馈的直动型比例换向阀，用来控制液流的流量和流动方向。该阀通油能力强，滞环小，重复精度高，适用于闭环控制回路，广泛应用于机床、轻工、冶金、矿山、航天等各领域自动化控制中。

This BFFW model is a direct-action proportional directional control valve, which is controlled by a proportional solenoid with electrical feedback. It is used to control the flow rate and direction. The high flow capacity, low hysteresis and good repeatability, all making it ideal for closed control loops, helps itself to find wide applications in the automation devices such as machine tools, light industry, metal, mining and aerospace.

技术参数 Technical specification

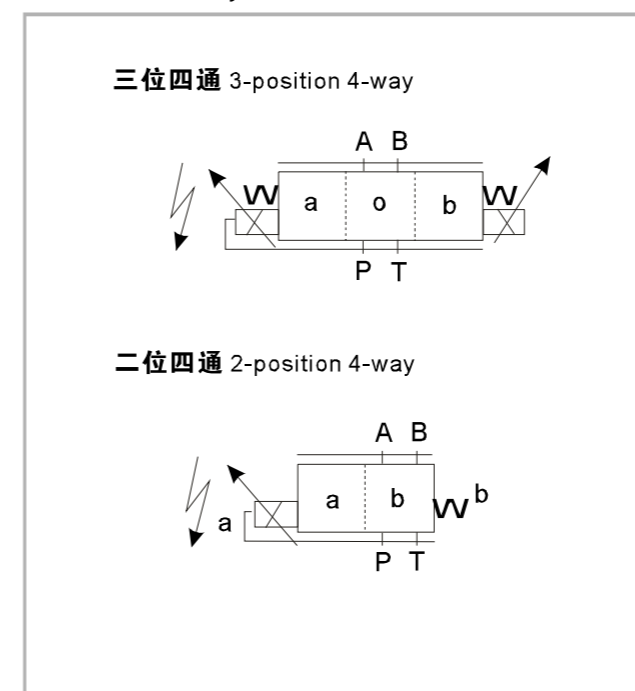
液压部分 Hydraulic section

规格 Model	02	03
最高工作压力 Maximum pressure (MPa)	P、A、B 31.5 T 16	31.5 16
最大流量 Flow (l/min)	65	130
滞环 Hysteresis (%)	<1	
重复精度 Repeatability (%)	<1	
过滤精度 Filtration accuracy (um)	≤20	
响应灵敏度 Responding sensitive (%)	≤0.5 名义信号 Nominal signal	
频率响应 -3dB Frequency response (Hz)	6	4
液压介质 Hydraulic fluid	矿物质液压油、磷酸酯液压油 Mineral Oil, Phosphate-ester	
介质粘度范围 Viscosity (mm <sup>2</sup> /s)	2.8~100	
介质温度范围 Fluid temp. (°C)	-20~70	
安装位置 Mounting position	任选 Standard	
重量 Weight (Kg)	二位阀 2-Position	1.9 5.6
	三位阀 3-Position	2.6 7.6

电气部分 Electric section

电源型式及电压 Electrical source model and pressure	直流DC24V (或者or12V)	
额定电流 Rated current (mA)	1500	
线圈电阻 Coil Resistance (Ω)	20°C下冷态值 cold state value	5.4 10
	最大热态值 Maximum hot state value	8.1 15
工作状态 Working state	连续 Continual	
线圈温度 Coil temp.(°C)	+150	
环境温度 Environmental temp.(°C)	+50	
绝缘要求 Insulation requirement	IP65	
配套放大器 Amplifier	有2个斜坡时间 2 slope time	VT-5001S20 (二位四通) (2-position 4-way)
	有1个斜坡时间 1 slope time	VT-5006S20 (三位四通) (3-position 4-way)
电气测量系统 Electrical measuring system	差动变压器 Variable differential transformer	
工作行程 Working stroke (mm)	±4.5	
线性度 Linearity (%)	1	
线圈电阻 Coil resistance (Ω)	IR20	56
	IIR20	56
	IIIR20	112
电感 Inductor (mH)	6~8	
频率 Frequency (KHz)	2.5	
绝缘要求 Insulation requirement	IP65	

机能符号 Code symbol

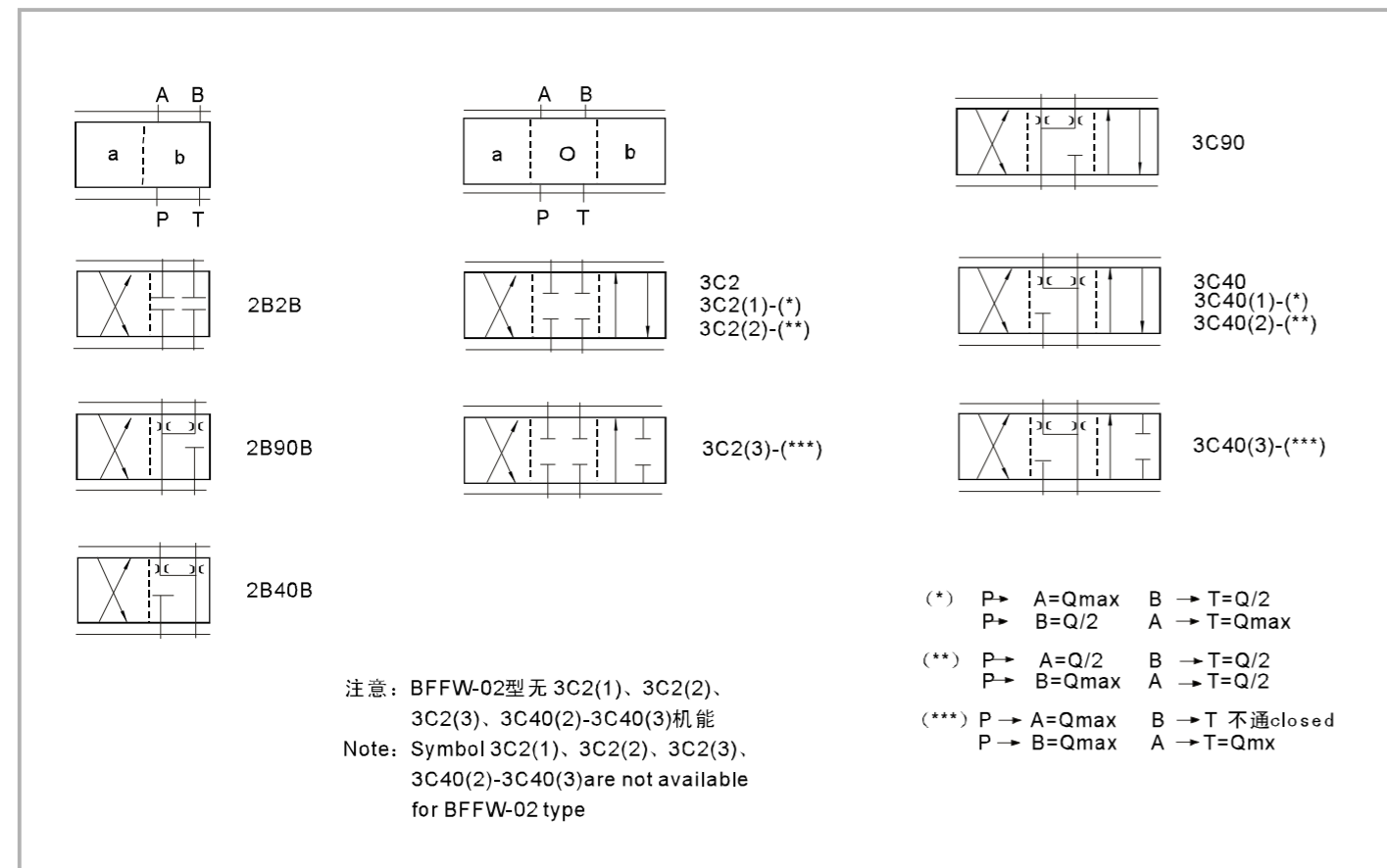


型号说明 Model instruction

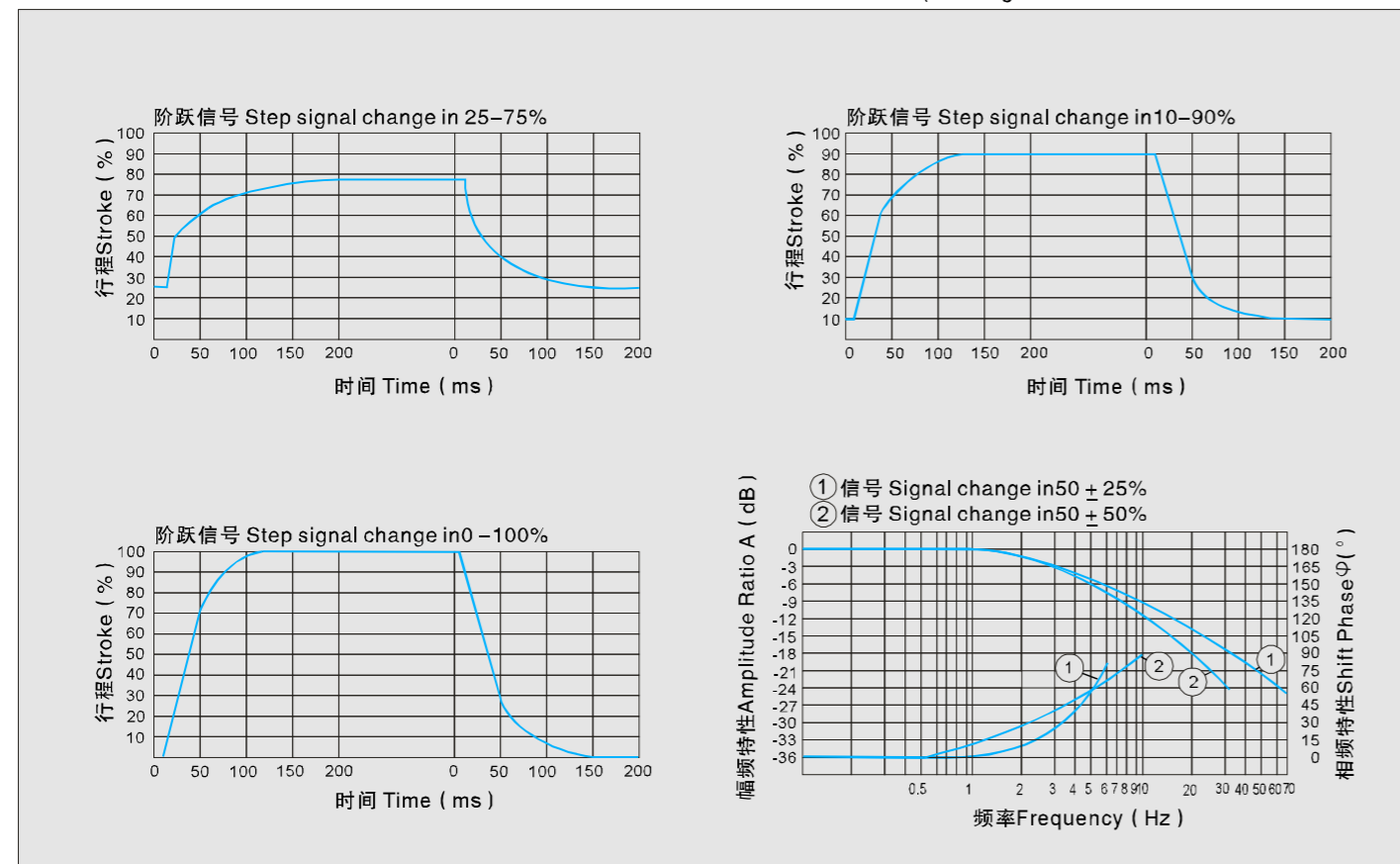


Feedback proportional directional valve

机能符号 Code symbol

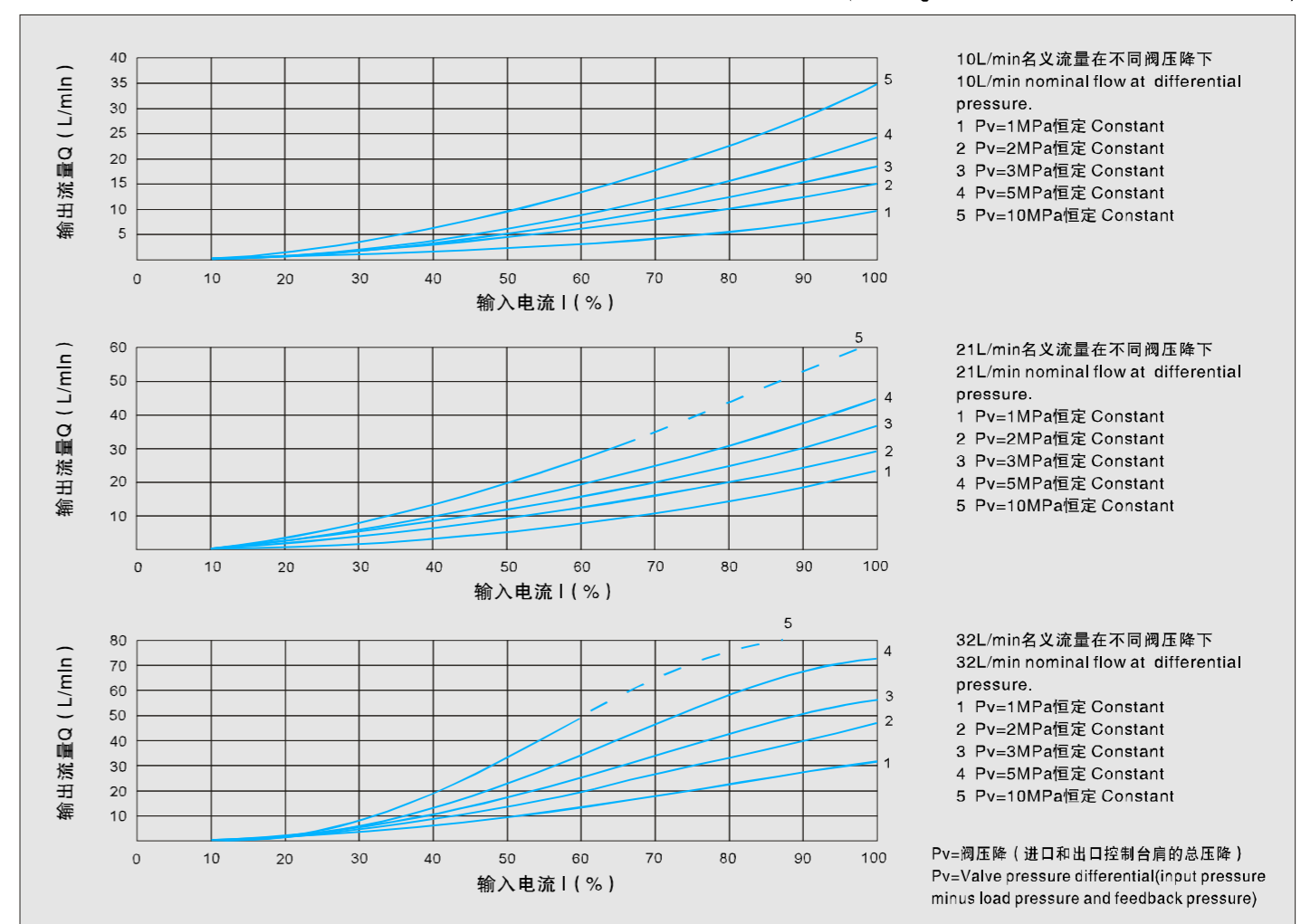


02型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )

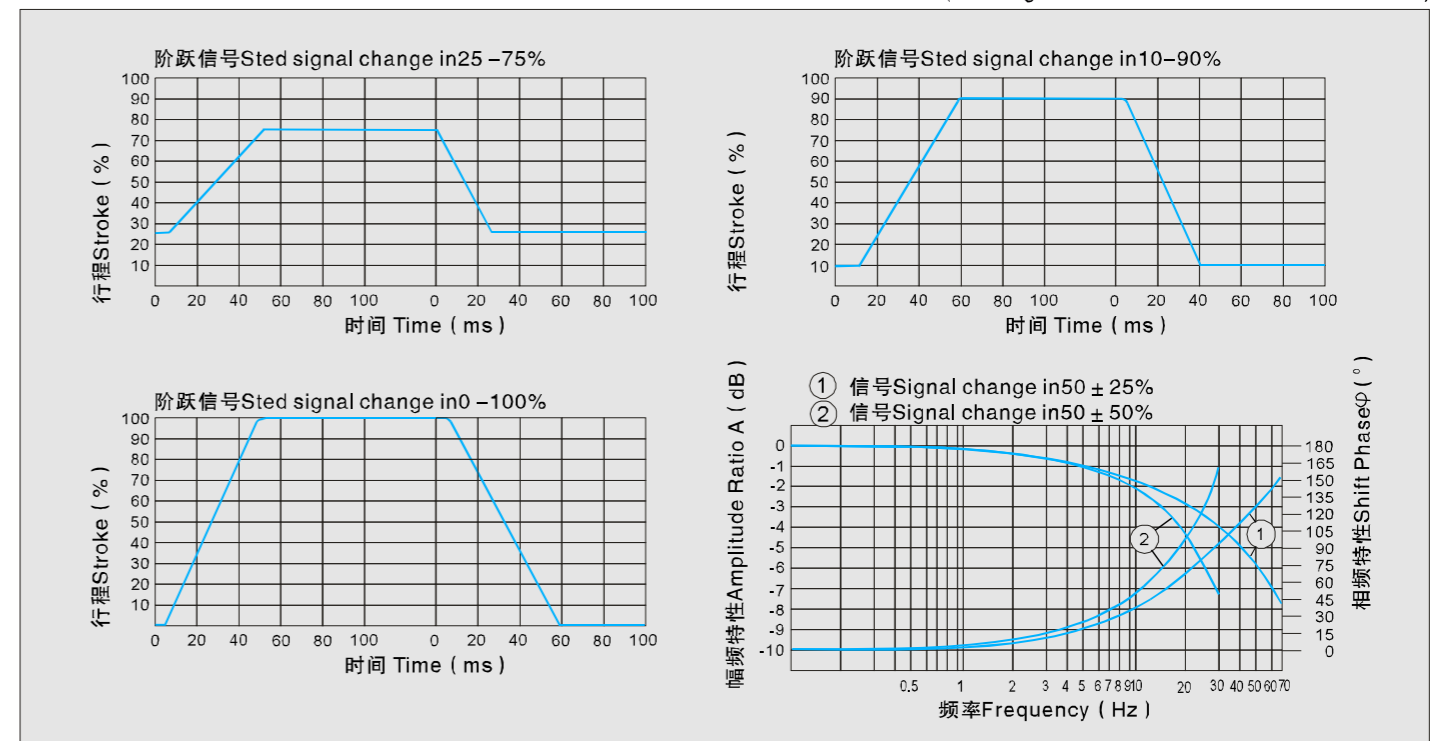


Feedback proportional directional valve

02型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )



03型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) 03Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )

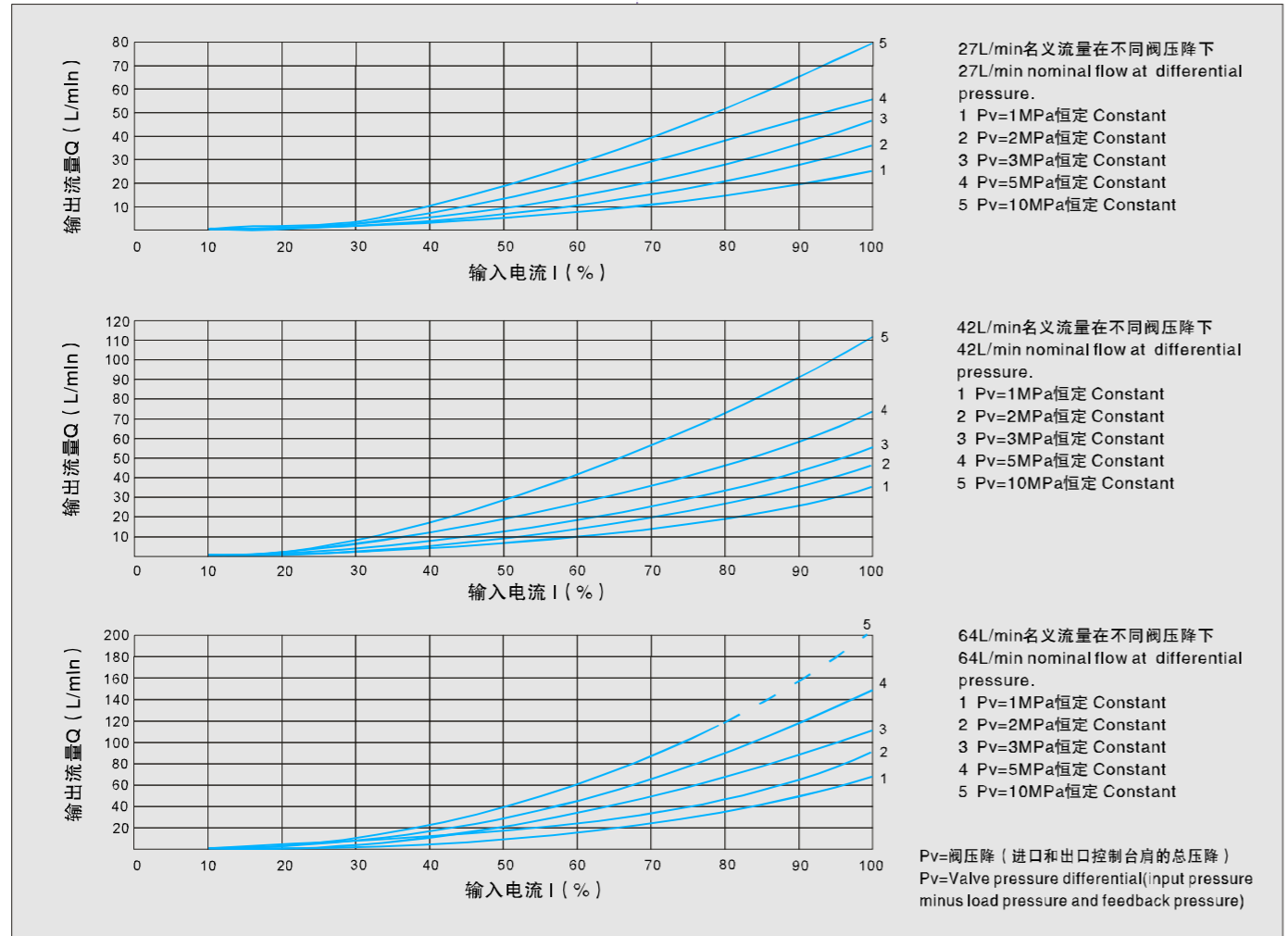


# BFFW 型比例换向阀 (带电反馈)

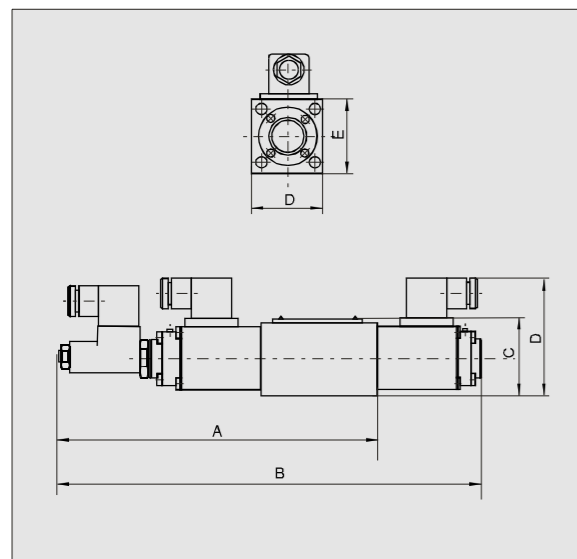


## Feedback proportional directional valve

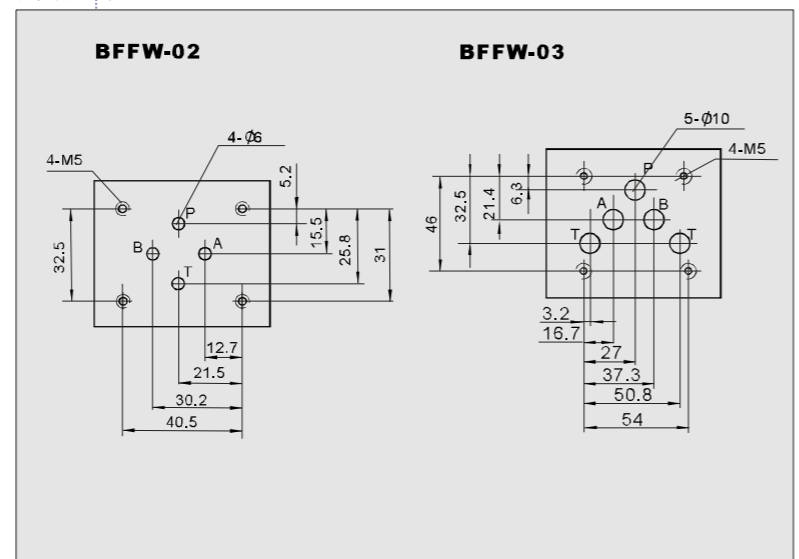
03型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )



### 外形尺寸 Outside size



### 底板尺寸 Plate size

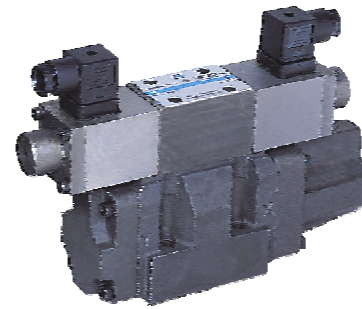


型号 Model	A	B	C	D	E
BFFW-02	220	290	58	78	47
BFFW-03	280	357	82	114	70

# BFWH 型比例电液换向阀



## Proportional electro-hydraulic directional valve



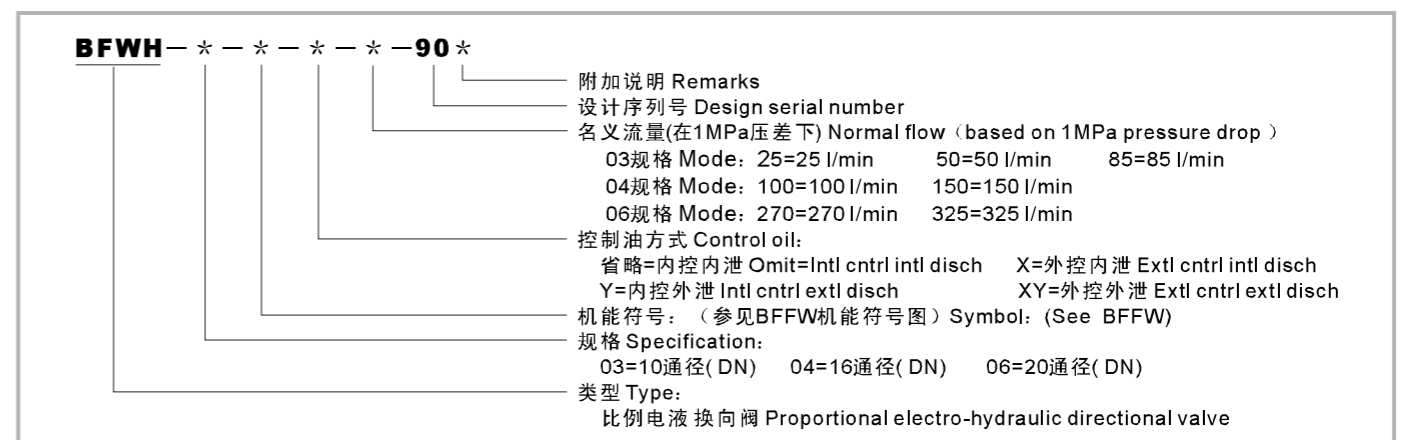
BFWH型比例电液换向阀是先导式两级阀, 通过比例电磁铁控制, 将电气信号转化为液体压力信号, 用来控制液压系统的流量和流动方向。

BFWH electro-hydraulic proportional directional valve is a 2-stage valve with a pilot. It is controlled by a proportional solenoid and converts the electrical signal into a fluid pressure signal to control the flow rate and directions in the hydraulic system.

### 技术参数 Technical specification

规格 Model	03	04	06	
最高工作压力 Maximum pressure (MPa)	31.5			
回油压力 Maximum pressure (MPa)	T油口(控制油外排) T(For extl disch)	< 25		
	T油口(控制油内排) T(For intl disch)	< 3		
	Y油口 Port Y	< 3		
最大流量 Maximum flow (l/min)	85	150	325	
滞环 Hysteresis (%)	< 6			
重复精度 Repeatability (%)	< 3			
额定电流 Rated current (mA)	800			
过滤精度 Filtration accuracy (um)	≤ 20			
液压介质 Hydraulic fluid	矿物质液压油、磷酸脂液压油 Mineral oil, phosphate-ester			
介质粘度范围 Viscosity (mm <sup>2</sup> /s)	2.8~100			
介质温度范围 Fluid temp. (°C)	-20~70			
线圈电阻 Coil resistance (Ω)	19.5			
重量 Weight (Kg)	二位阀 2-Position	8.1	12.3	17.5
	三位阀 3-Position	8.8	13	18.2

### 型号说明 Model instruction



03型特性曲线 (试验条件  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ ) Model Characteristic Curves (Testing Condition  $v=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )

