

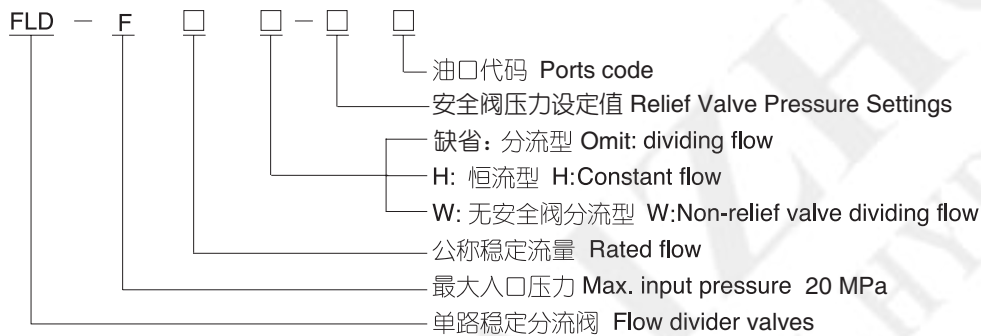
FLD 型单路稳定分流阀

FLD Type Flow Divider Valves

FLD型单路稳定分流阀主要用于BZZ1型液压转向系统在油泵供油量及系统负荷变化的情况下，通过分流阀来保证转向器所需的稳定流量，以满足主机转向性能的要求。它既可用于独立系统，也可用于共泵分流系统，从而简化系统，降低成本。

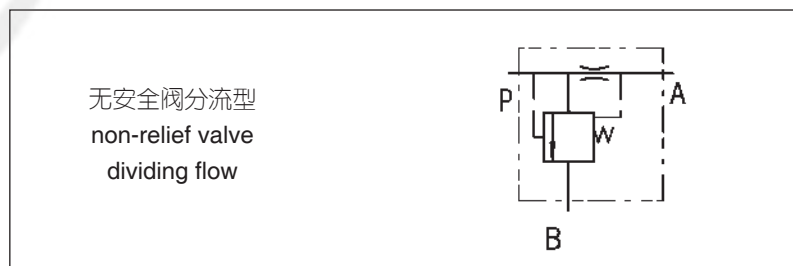
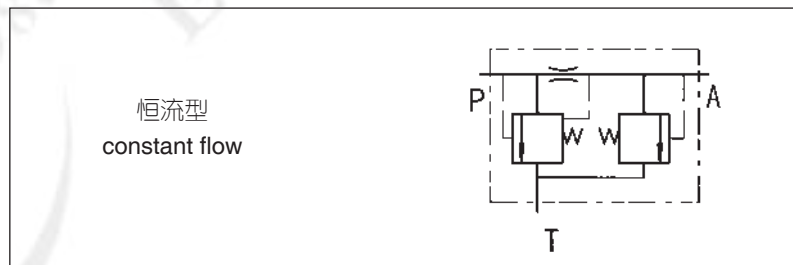
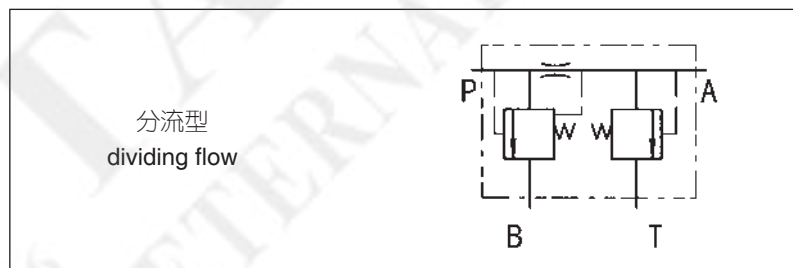
The FLD type flow divider valve is used to form a complete set of BZZ type steering control units. Under such conditions of variety oil volume or/and different pressure in steering system, FLD type can provide constant flow for the steering unit so as to meet the requirement of hydraulic steering performance of vehicle. FLD type not only can control steering system, but also it helps pump to divide flow so that to reduce cost and simplify system design.

型号说明 Order Code



功能符号 Function Code

FLD



FLD 型单路稳定分流阀

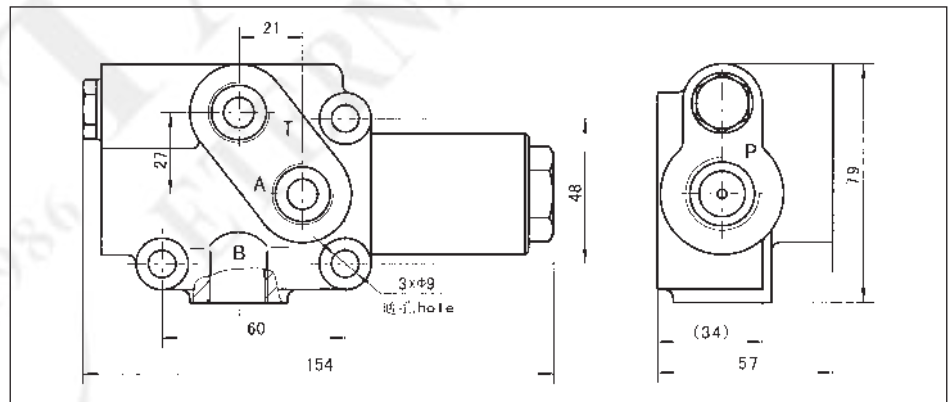
FLD Type Flow Divider Valves

主要技术参数 Main Specification

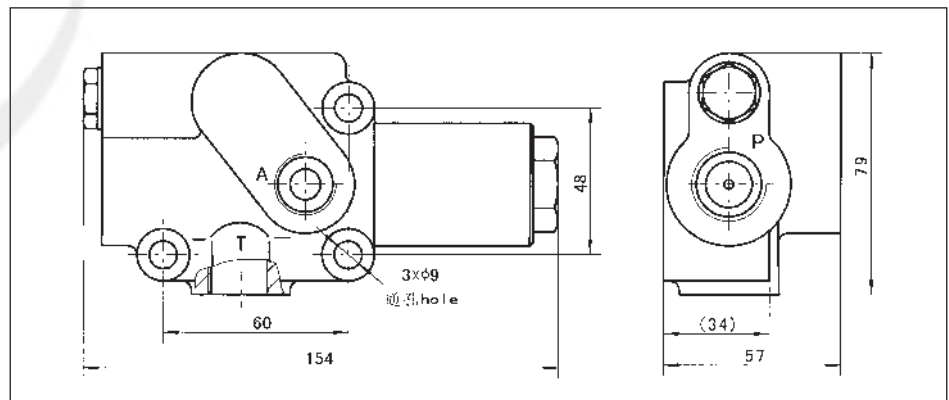
型号 Type	公称流量 Rated Flow (L/min)	最大入口流量 Max. input flow (L/min)	最大入口压力 Max. input pressure (MPa)	稳定油路安全 阀调压范围 Adjusting pressure range (MPa)	流量变化率 Variation of flow (%)	推荐配套转向器 Fit with steering unit	
FLD-F4 *	4	45	20	6.3~16	15	BZZ1-E50	
FLD-F5 *	5					BZZ1-E63	
FLD-F6 *	6					BZZ1-E80	
FLD-F7.5 *	7.5					BZZ1-E100	
FLD-F9.5 *	9.5					BZZ1-E125	
FLD-F12 *	12					BZZ1-E160	
FLD-F15 *	15					BZZ1-E200	
FLD-F19 *	19	60			20	20	BZZ1-E250
FLD-F21 *	21	75					BZZ1-E280
FLD-F24 *	24	75					BZZ1-E315
FLD-F30 *	30	90					BZZ1-E400
FLD-F38 *	38	120					BZZ1-E500
FLD-F48 *	48						BZZ1-E630
FLD-F60 *	60						BZZ1-E800
FLD-F75 *	75	200	BZZ1-E1000				

连接尺寸 Mounting Data

FLD-F4~15



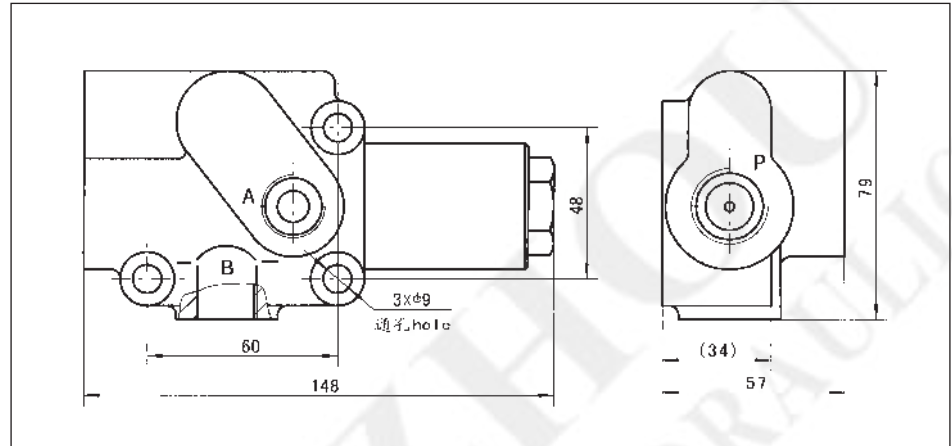
FLD-F4~15H



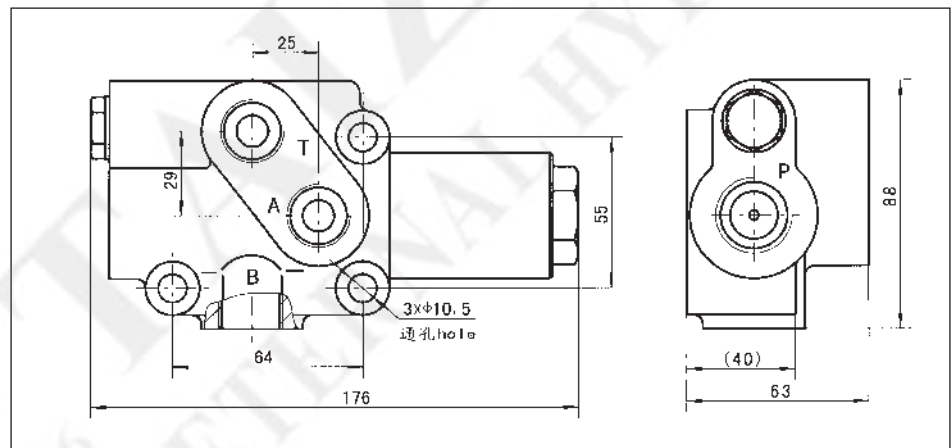
FLD 型单路稳定分流阀
FLD Type Flow Divider Valves

连接尺寸 Mounting Data

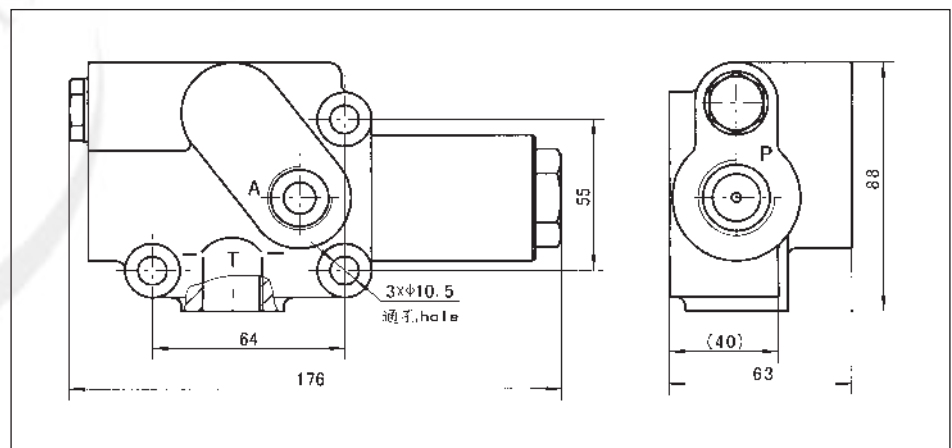
FLD-F4~15W



FLD-F19~30



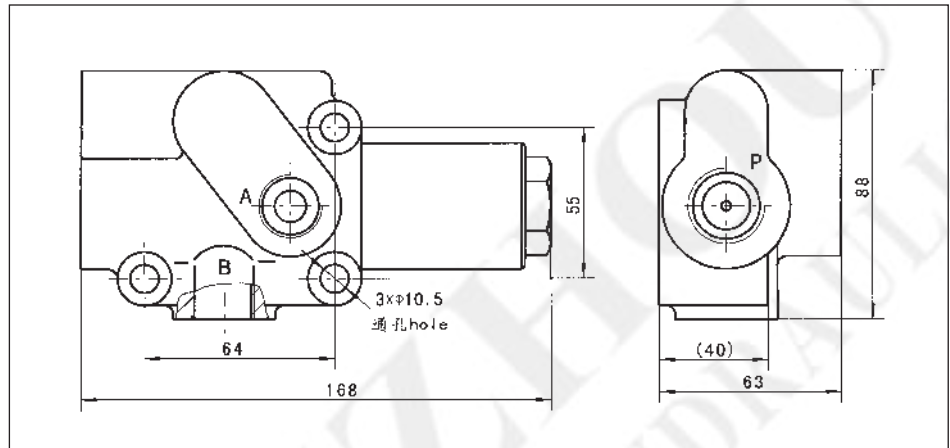
FLD-F19~30H



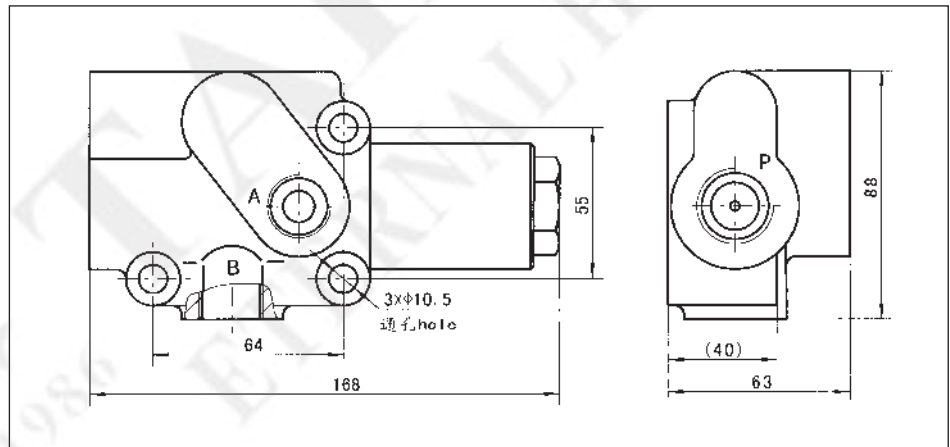
FLD 型单路稳定分流阀
FLD Type Flow Divider Valves

连接尺寸 Mounting Data

FLD-F19~30W



FLD-F38~75W



FLD 型单路稳定分流阀
FLD Type Flow Divider Valves

油口螺纹 Ports Threads

FLD4~15
FLD4~15H
FLD4~15W

代码 code	P油口 port P	A、(B)、(T) 油口 ports A, (B), (T)
缺省 omit	M24×1.5 Depth16	M20×1.5 Depth16
D	M24×1.5 O-ring Depth16	M20×1.5 O-ring Depth16
C	7/8-14UNF O-ring Depth16	3/4-16UNF O-ring Depth16

FLD19~30
FLD19~30H
FLD19~30W

代码 code	P油口 port P	A、(B)、(T) 油口 ports A, (B), (T)
缺省 omit	M27×1.5 Depth16	M24×1.5 Depth16
D	M27×1.5 O-ring Depth16	M24×1.5 O-ring Depth16
C	1 1/16-16UN O-ring Depth16	7/8-14UNF O-ring Depth16

FLD38~75W

代码 code	P油口 port P	A、(B) 油口 ports A, (B)
缺省 omit	M27×1.5 Depth16	M27×1.5 Depth16
D	M27×1.5 O-ring Depth16	M27×1.5 O-ring Depth16
C	1 1/16-16UN O-ring Depth16	1 1/16-16UN O-ring Depth16

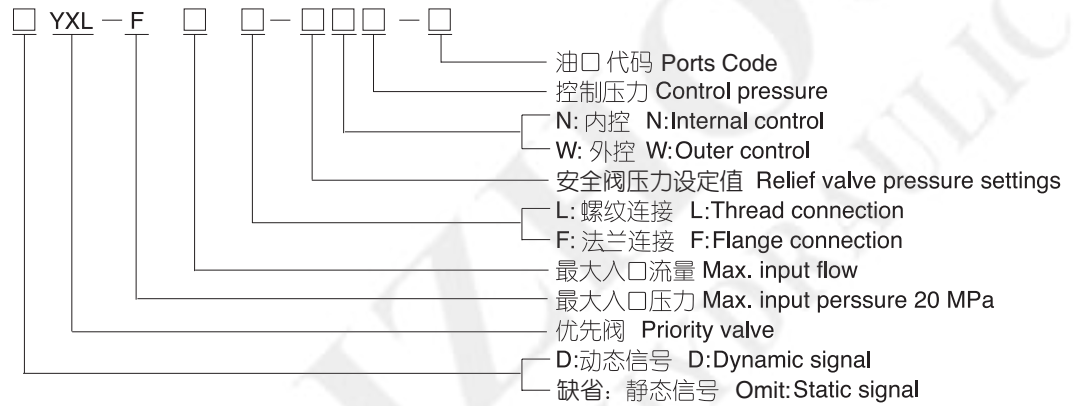
DYXL、YXL 型优先阀

DYXL,YXL Type Priority Valves

DYXL、YXL型优先阀与BZZ5型转向器或TLF1型同轴流量放大转向器配套，组成负荷传感液压转向系统。在系统负载变化或（和）方向盘转速变化的情况下，能优先保证转向器所需流量。

The DYXL,YXL type priority valve is used with BZZ5 type load sensing steering control unit or with TLF1 type coaxial flow amplifying steering unit, to form a load sensing power steering system, providing metered priority flow to the SCU.

型号说明 Order Code

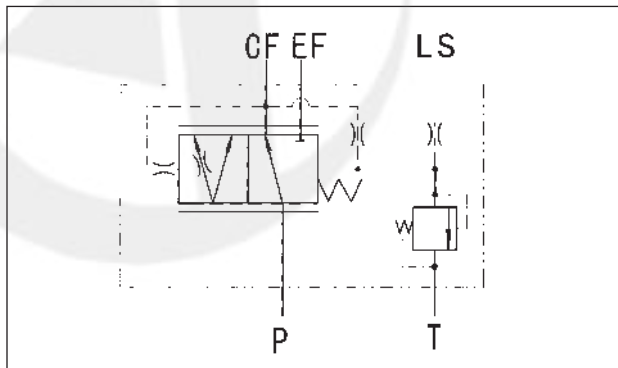


(D)YXL-F40、(D)YXL-F80、(D)YXL-F160

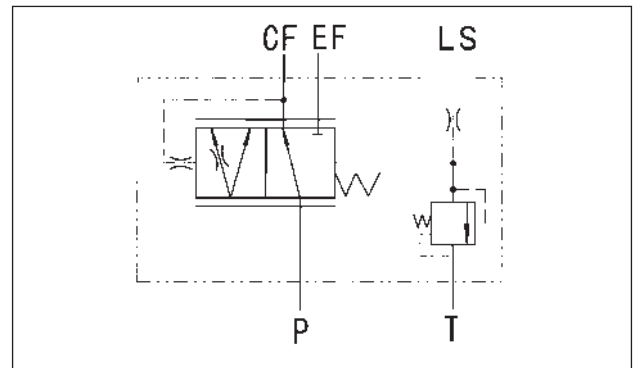


(D)YXL-F250

功能符号 Function Code



动态信号 Dynamic Signal



静态信号 Static Signal

DYXL、YXL 型优先阀

DYXL,YXL Type Priority Valves

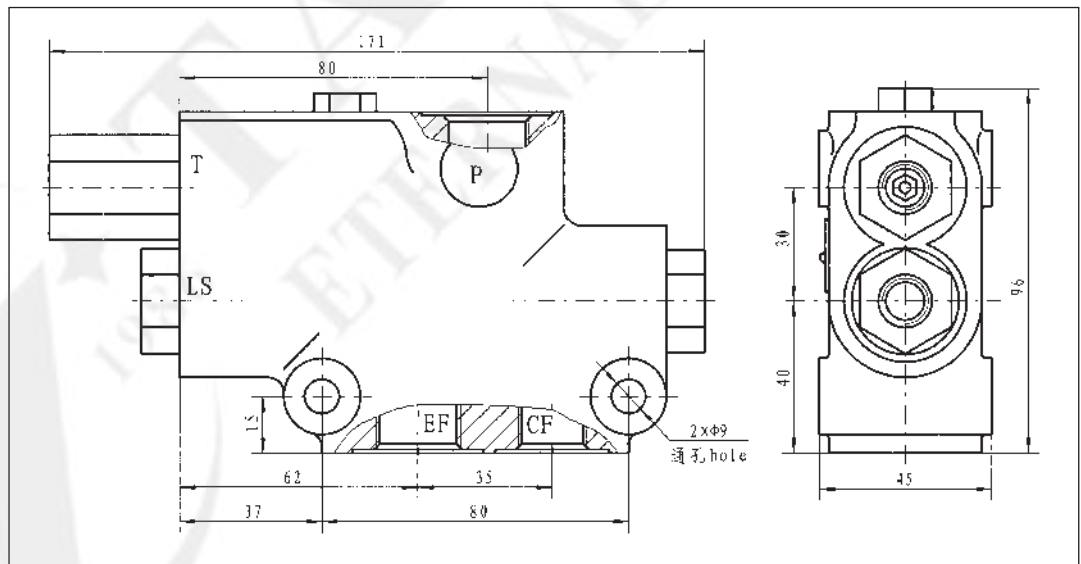
主要技术参数 Main Specification

型号 Type	控制压力 Control pressure (bar)	最大入口流量 Max. input flow (L/min)	最大入口压力 Max. input pressure (MPa)	转向安全阀 调压范围 Relief valve pressure range (MPa)
□YXL-F40L-□□4.5-□	4.5	40	20	6.3~17.5 出厂时根据用户要求调定 adjusted by customer's requirement
□YXL-F40L-□□7-□	7			
□YXL-F40L-□□10.5-□	10.5			
□YXL-F80L-□□4.5-□	4.5	80		
□YXL-F80L-□□7-□	7			
□YXL-F80L-□□10.5-□	10.5			
□YXL-F160L-□□4.5-□	4.5	160		
□YXL-F160L-□□7-□	7			
□YXL-F160L-□□10.5-□	10.5			
□YXL-F250□-□□7-□	7	250		
□YXL-F250□-□□10.5-□	10.5			

注：□内为单选值，其含义见P67型号说明。Note: □ Please see page 67 for reference

连接尺寸 Mounting Data

YXL-F40L
DYXL-F40L
YXL-F80L
DYXL-F80L



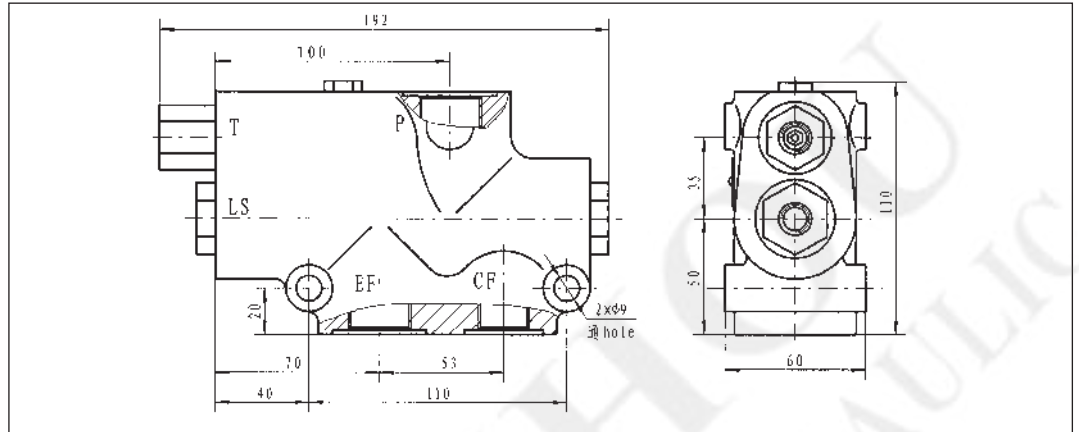
Code	Ports P, EF		Port CF		Ports Ls, T	
	Thread	Depth(mm)	Thread	Depth(mm)	Thread	Depth(mm)
A	M22x1.5	16	M18x1.5	16	M12x1.5	14
B	G1/2		G3/8			
C	7/8-14UNF O-ring		3/4-16UNF O-ring			
D	M22x1.5 O-ring		M18x1.5 O-ring			
E	G1/2 O-ring		G3/8 O-ring			

DYXL、YXL 型优先阀

DYXL,YXL Type Priority Valves

连接尺寸 Mounting Data

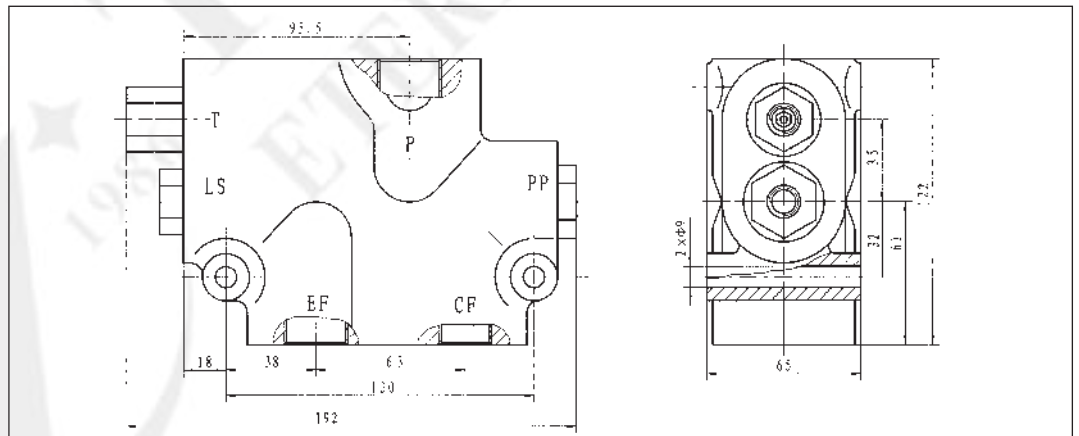
YXL-F160L



Code	Ports P, EF		Port CF		Ports LS, T	
	Thread	Depth(mm)	Thread	Depth(mm)	Thread	Depth(mm)
A	M27x2	22	M22x1.5	18	M12x1.5	14
B	G3/4		G1/2		G1/4	
C	1 1/16-12UN O-ring		3/4-16UNF O-ring		7/16-20UNF O-ring	
D	M27x2 O-ring		M22x1.5 O-ring		M12x1.5 O-ring	
E	G3/4 O-ring		G1/2 O-ring		G1/4 O-ring	

连接尺寸 Mounting Data

DYXL-F160L



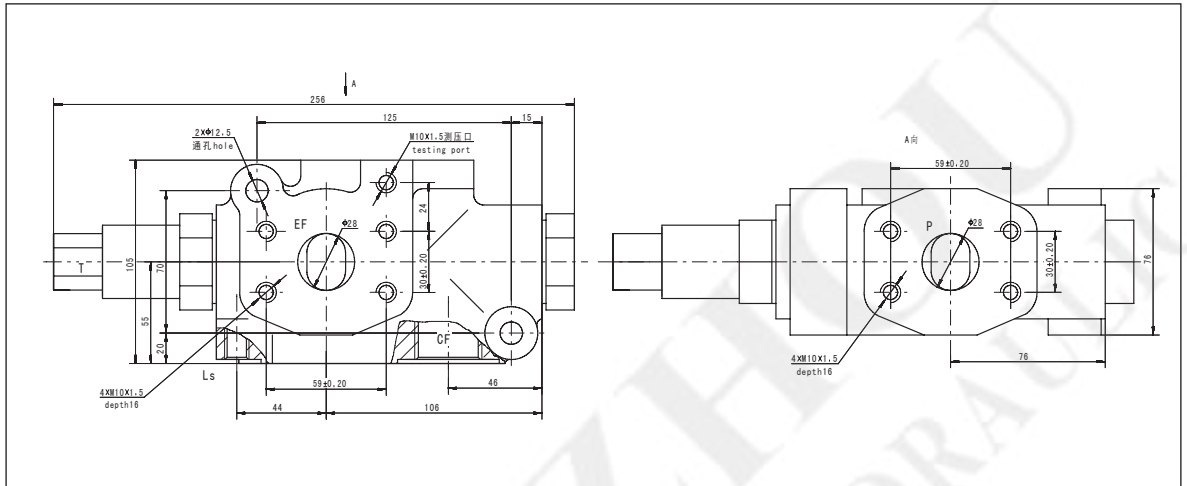
Code	Ports P, EF		Port CF		Ports LS, T	
	Thread	Depth(mm)	Thread	Depth(mm)	Thread	Depth(mm)
A	M27x2	22	M22x1.5	18	M12x1.5	14
B	G3/4		G1/2		G1/4	
C	1 1/16-12UN O-ring		3/4-16UNF O-ring		7/16-20UNF O-ring	
D	M27x2 O-ring		M22x1.5 O-ring		M12x1.5 O-ring	
E	G3/4 O-ring		G1/2 O-ring		G1/4 O-ring	

DYXL、YXL 型优先阀

DYXL,YXL Type Priority Valves

连接尺寸 Mounting Data

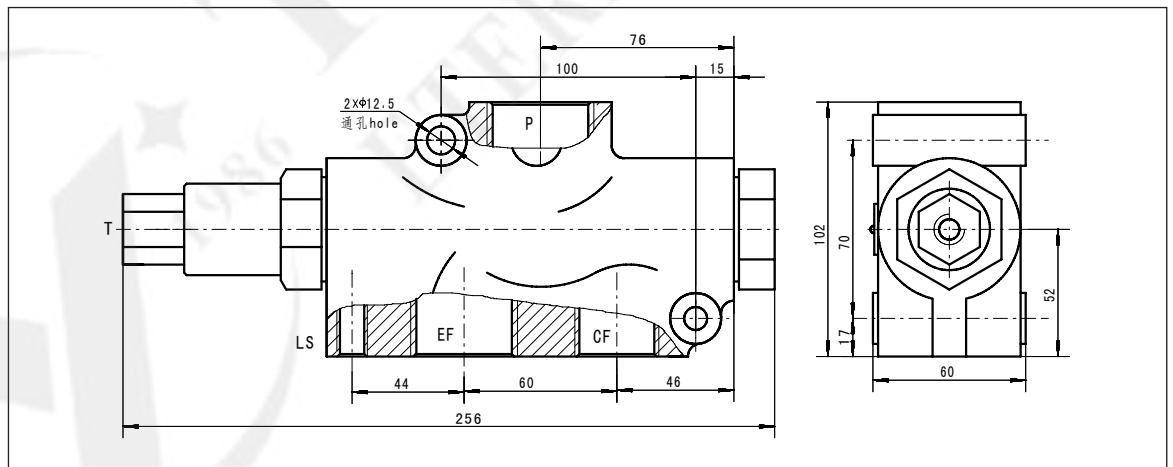
YXL-F250F
DYXL-F250F



Code	Ports P,EF		Port CF		Ports LS,T	
	Aperture Size	Thread	Depth(mm)	Thread	Depth(mm)	
A	$\phi 28$	M33x2	22	M12x1.5	14	
D	$\phi 28$	M33x2 O-ring	22	M12x1.5 O-ring	14	

连接尺寸 Mounting Data

YXL-F250L
DYXL-F250L



Code	Ports P,EF		Port CF		Ports LS,T	
	Thread	Depth(mm)	Thread	Depth(mm)	Thread	Depth(mm)
A	M42x2	22	M33x2	22	M12x1.5	14
D	M42x2 O-ring	22	M33x2 O-ring	22	M12x1.5 O-ring	14

DYXL、YXL 型优先阀

DYXL,YXL Type Priority Valves

产品订货代号 Order Code

Pos.1	Pos.2	Pos.3	Pos.4	Pos.5	Pos.6	Pos.7					
*	YXL	-	F	***	*	-	**	*	**	-	*

Pos.1 - 信号型式 Signal Model

缺省: 静态信号 Omit: Static Signal

D: 动态信号 D: Dynamic Signal

Pos.2 - 最大入口流量 Max.input flow (L/min)

40、80、160、250

Pos.3 - 连接型式 Mounting type

L: 螺纹连接 L: Thread connection

F: 法兰连接 F: Flange connection

Pos.4 - 安全阀压力设定值 Relief valve pressure settings (MPa)

08、10、12、14、15、16、17.5

Pos.5 - 控制方式 Control type

N: 内控 N: Internal control

W: 外控 W: Outer control

Pos.6 - 控制压力 Control pressure (bar)

4.5、7、10.5

Pos.7 - 油口代码 Ports Code

A、B、C、D、E

应用举例:

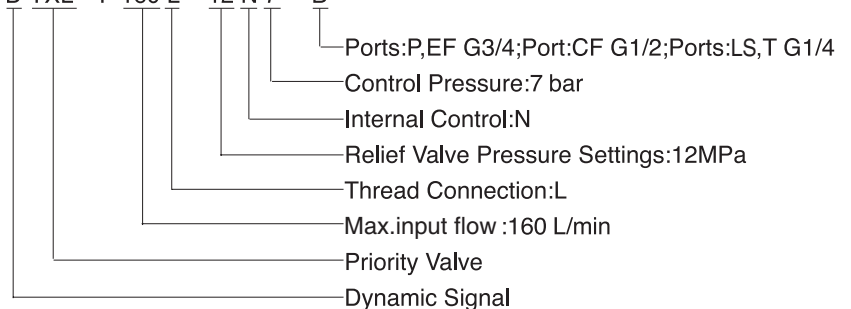
DYXL 系列优先阀, 动态信号, 最大入口流量 160L/min, 安全阀压力12MPa, 控制压力 7 Bar(0.7MPa),内控, 油口连接尺寸: P、EF油口为G3/4,CF 油口为G1/2, LS、T油口为G1/4。

优先阀订货编号: DYXL-F160L-12N7-B

For example:

Order code

D YXL - F 160 L - 12 N 7 - B



PV型优先阀

PV Type Priority Valves

PV**-40、60、80型 优先阀和负荷传感型转向器配套使用，当系统主油路的油泵供来的液压油通过优先阀时，在系统负载变化或方向盘转速变化的情况下，优先保证转向油路所需流量。

PVF*-40、60、80 型优先阀为板式连接方式，与101S-5(L)(E)或102S-5(L)(E) 转向器组合成一体使用；PVF*-40、60、80优先阀分为静态信号PVFS-40、60、80和动态信号PVFD-40、60、80；

PVL*-40、60、80型 优先阀为管式连接方式，与101(S)-5T(TE) 或102(S)-5T(TE)转向器连接使用；PVL*-40、60、80分为静态信号PVLS-40、60、80和动态信号PVLD-40、60、80。

PV**-40、60、80 型 优先阀中不含LS口油路安全阀。

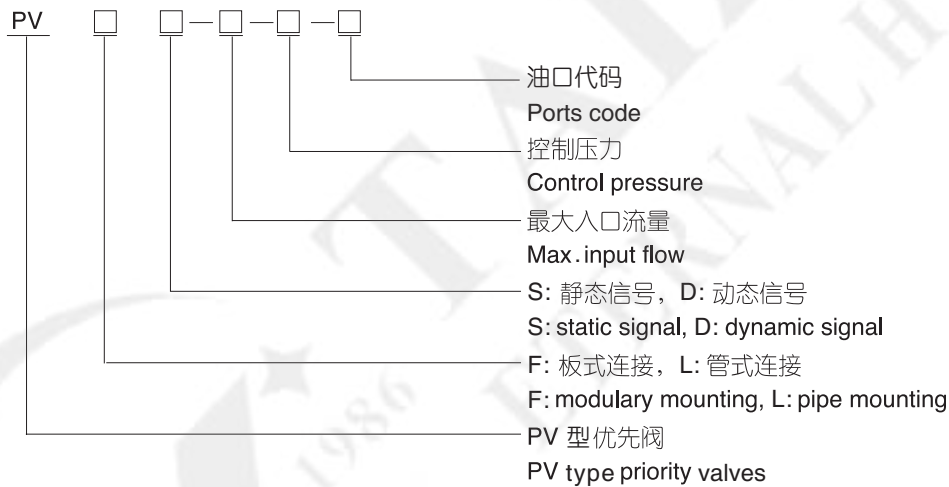
PV**-40,60,80 type priority valve is matched with the load sensing steering unit. When the hydraulic oil flow to the priority valve , and the load or revolution changed ,

PVF*-40,60,80 type priority valves is modularly design. matched with the 101S-5(L)(E) or 102(S)-5(L)(E)SCU; PVF*-40,60,80 priority valve has 2 kind signals: PVFS-40,60,80 static signal,PVFD-40,60,80 dynamic signals.

PVL*-40,60,80 type priority valve is pipe design , matched with the 101(S)-5T(TE) or 102(S)-5T(TE) SCU, PVL*-40,60,80 type priority valve has 2 kind signals: PVLS-40,60,80 static signal,PVLD-40,60,80 dynamic signals.

PV**-40,60,80 type priority valve is not interchanged with the LS inlet pressure control relief valve, the relief valve integrated in the SCU.

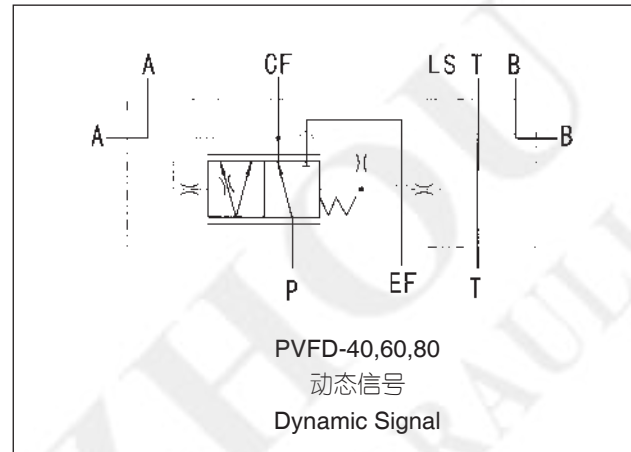
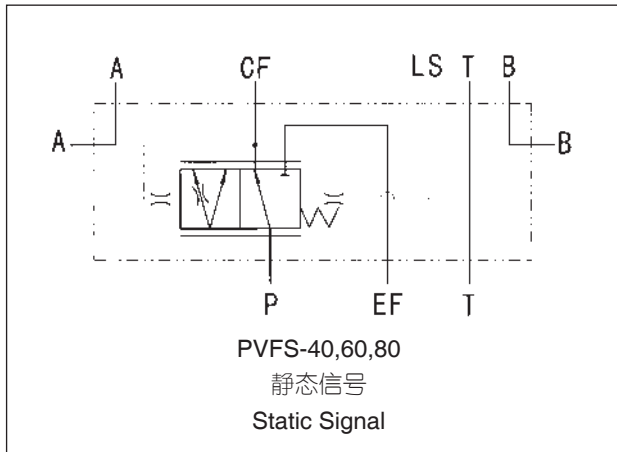
型号说明 Order Code



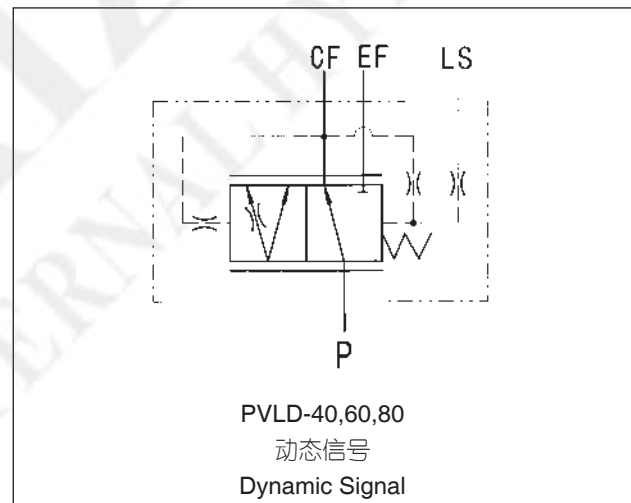
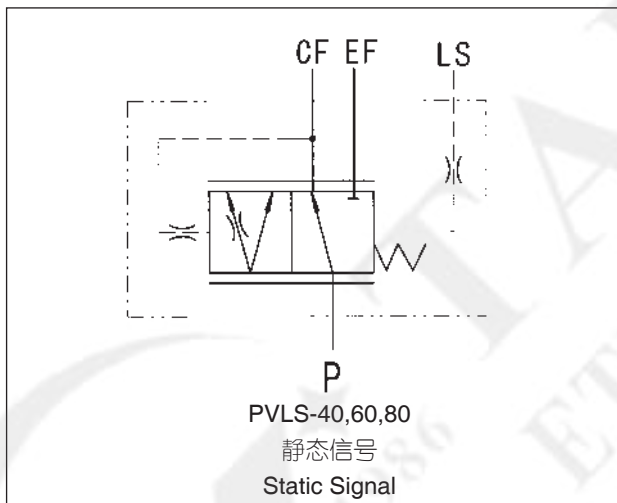
PV型优先阀

PV Type Priority Valves

功能符号 Function Code



板式连接 Modularity Mounting



管式连接 Pipe Mounting

主要技术参数 Main Specification

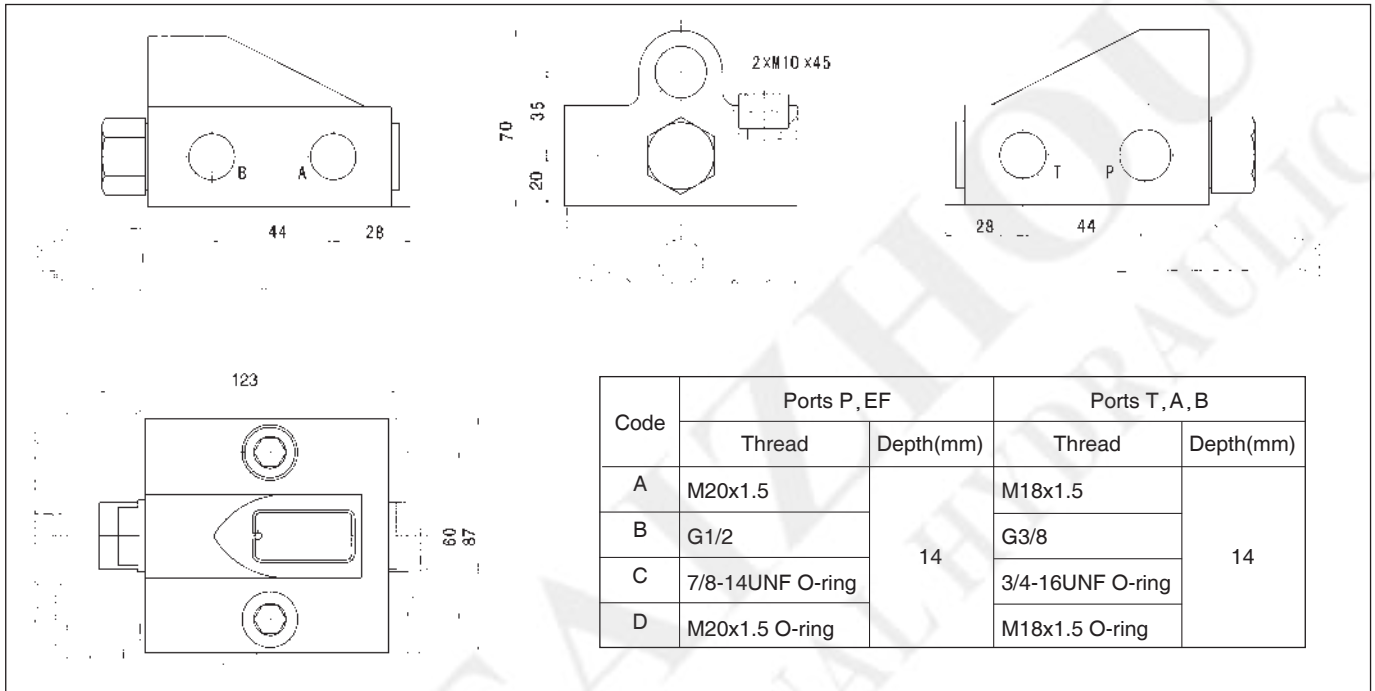
Parameters	Type PVFS(D) , PVLS(D)
Max. Input Flow (L/min)	40,60,80
Control Pressure (MPa)	0.45, 0.7, 1.05
Max. Pressure in Oil: P, EF (MPa)	20
Max. Pressure in Oil: LS, CF (MPa)	16

PV型优先阀

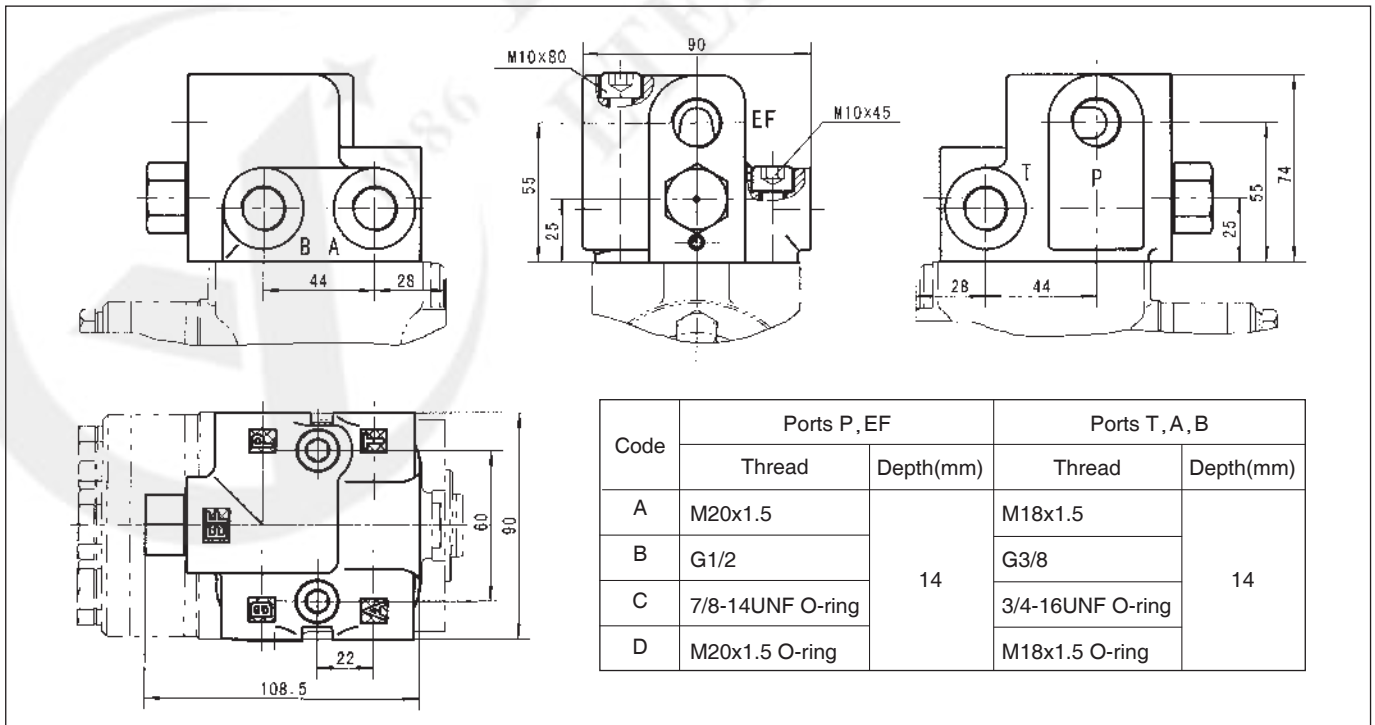
PV Type Priority Valves

连接尺寸 Mounting Data

PVFS(D)-40、60



PVFaS(D)-60

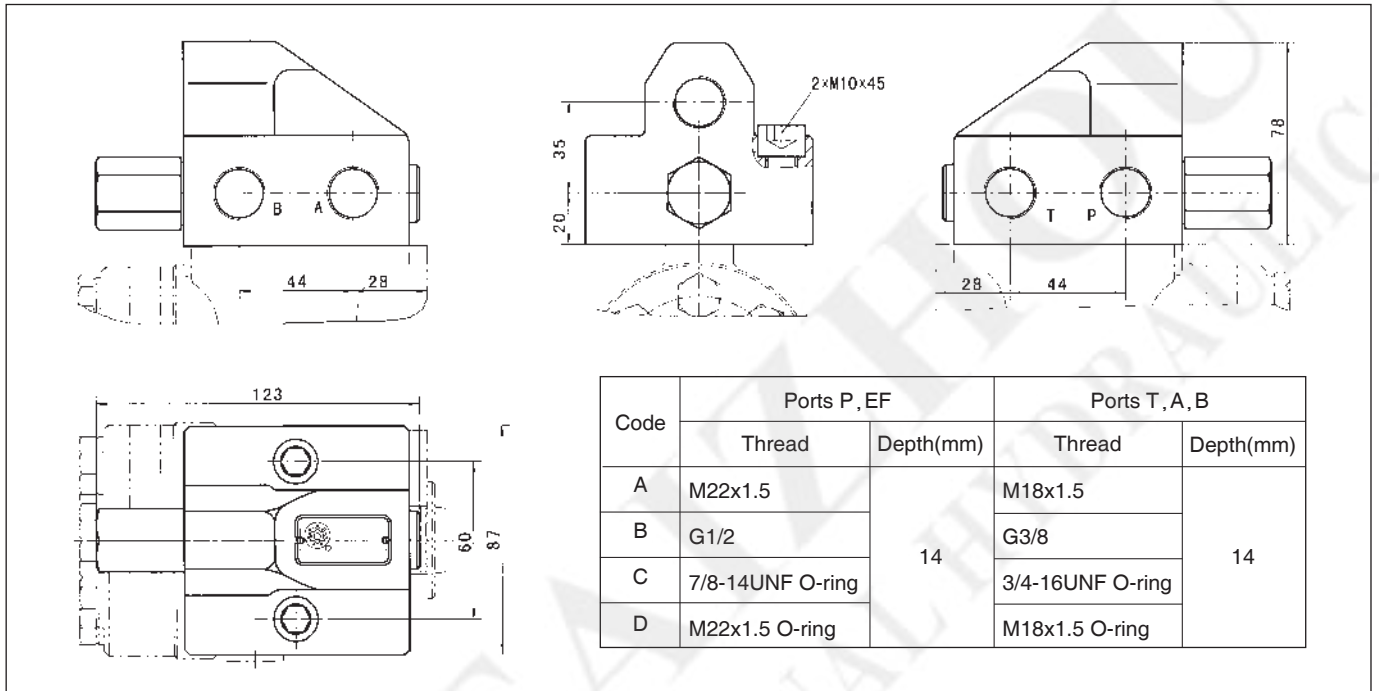


PV型优先阀

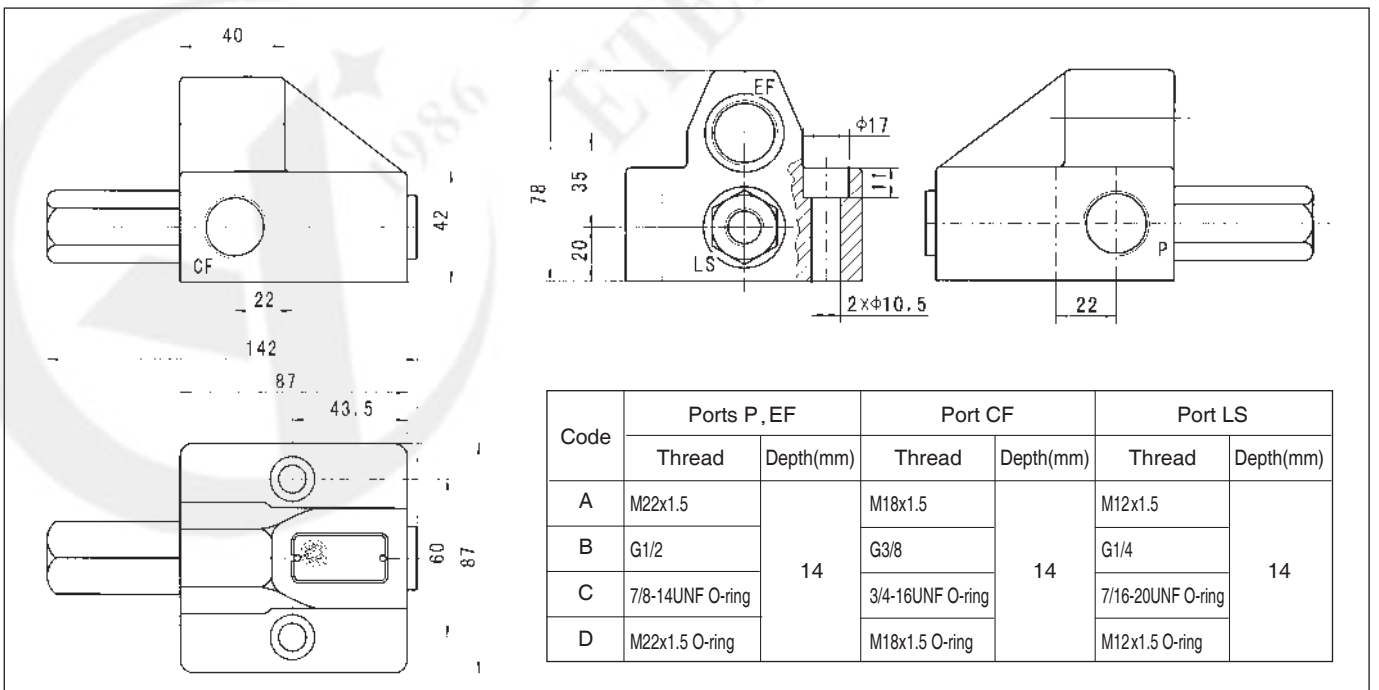
PV Type Priority Valves

连接尺寸 Mounting Data

PVFS(D)-80



PVLS(D)-80



PV型优先阀

PV Type Priority Valves

产品订货编号 Order Code

	Pos.1	Pos.2		Pos.3		Pos.4		Pos.5
PV	*	*	-	**	-	***	-	*

Pos.1 - 连接方式 Mounting

其中: F:板式连接 F:Modulary Mounting
L:管式连接 L:Pipe Mounting

Pos.2 - 信号型式 Signal Model

其中: S:静态信号 S:Static Signal
D:动态信号 D:Dynamic Signal

Pos.3 - 最大入口流量 Max.Input Flow (L/min)

40、60、80

Pos.4 - 控制压力 Control Pressure (MPa)

0.45、0.7、1.05

Pos.5 - 油口代码 Ports Code

A、B、C、D

应用举例:

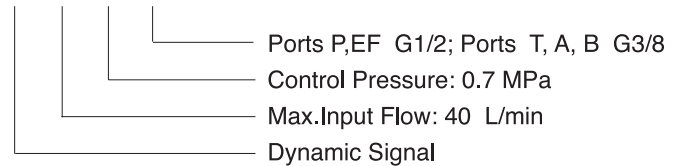
PV 型优先阀, 板式连接, 动态信号, 最大入口流量40 L/min, 控制压力 0.7 MPa, 油口连接尺寸: P、EF油口为G1/2, T、A、B油口为G3/8。

优先阀订货编号为: PVFD-40-0.7-B

For example:

Order code

PVFD - 40 - 0.7 - B



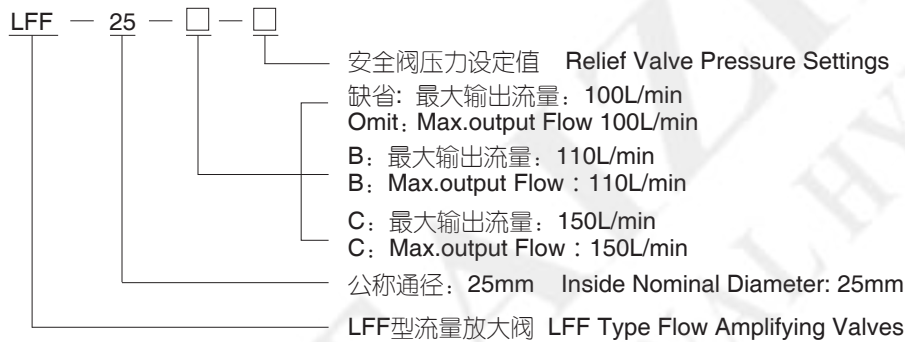
LFF型流量放大阀

LFF Type Flow Amplifying Valves

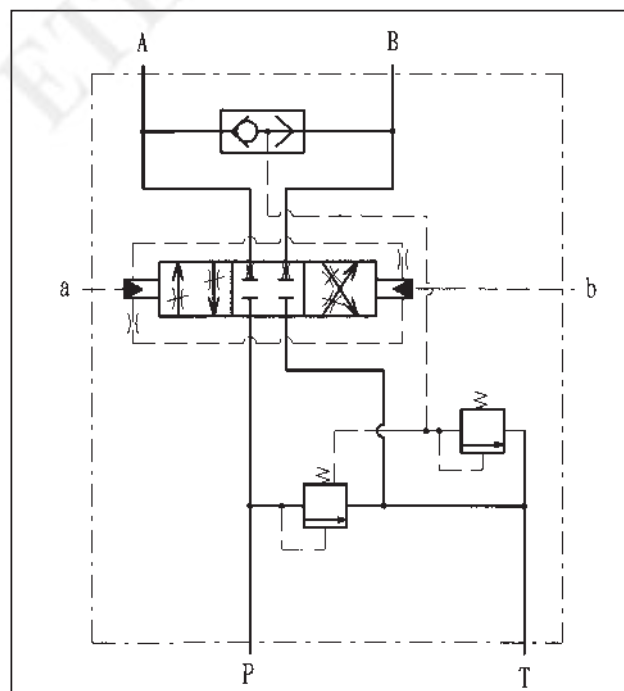
LFF-25型流量放大阀是一种利用低压小流量来控制高压大流量的液动换向阀，和BZZ3型转向器配套组成全液压转向系统。该阀采用了压力补偿装置，向转向油缸供给的流量基本不随负载而改变，保证了转向的平稳，节能效果明显。并具有转向功率大，轻便可靠等优点。适用于大中型轮式车辆和船舶舵机等液压转向系统。

The LFF-25 Flow amplifying valve is a kind of hydraulic directional valve which can use low pressure and small flow to control high pressure and big flow. It can be used with BZZ3 type steering unit as hydraulic steering system. Through adopting pressure compensation device, the flow amplifier supplies oil flow for steering cylinder. The oil flow won't vary with the loading as to ensure steering reliability and energy saving. With the features of high steering power and flexible steering, this type Flow amplifying valve is applicable to steering system in large wheeled vehicles and marine rudder.

型号说明 Order Code



功能符号 Function Code



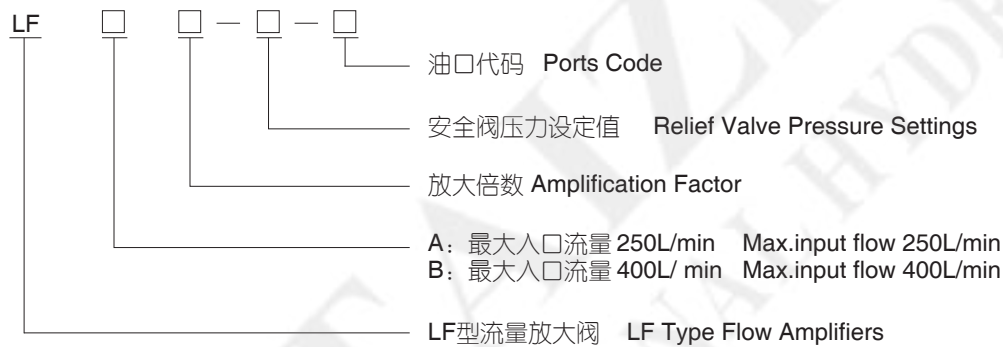
LFA、LFB 型流量放大阀

LFA, LFB Type Flow Amplifiers

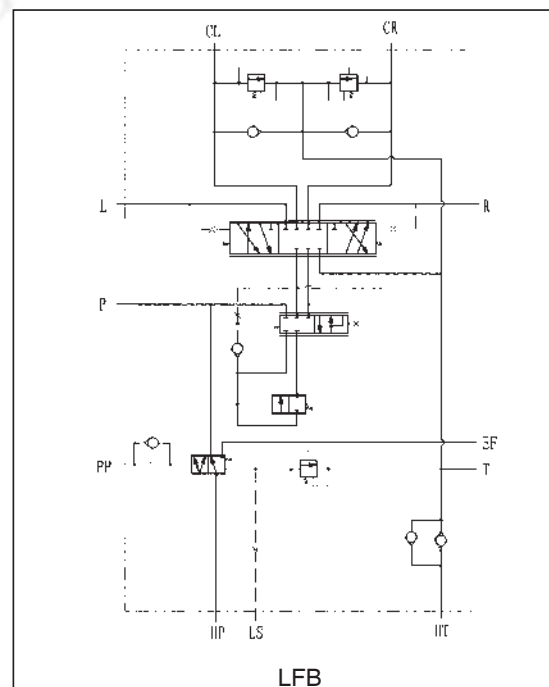
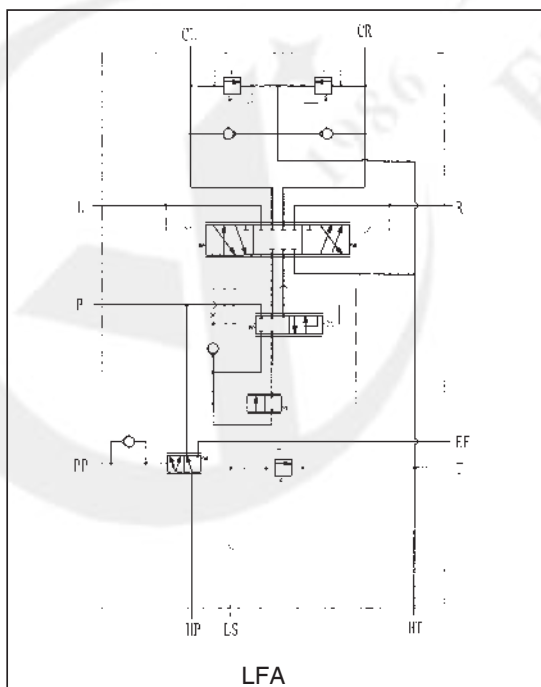
LFA、LFB型流量放大阀主要由优先阀、方向阀、放大阀、缓冲阀、补油阀等组成，和101-5TX型转向器组成负荷传感转向系统。该阀采用了按比例流量放大的特殊结构，以固定的放大倍数对转向器的输出流量进行放大，并由流量放大阀进入转向油缸，放大的流量和方向盘的转速成正比。该转向系统具有转向功率大，操作灵活省力，以及发动机熄火时能实现人力转向等优点。适用于大中型轮式车辆和船舶舵机等液压转向系统。

The LFA and LFB flow amplifiers mainly contain a priority valve, a directional valve, an amplification valve, shock valves, suction valves and etc, and they can be used with 101-5TX type steering unit as a loading sensing steering system. Through adopting proportional flow amplification special structure, the flow amplifier amplifies the oil flow from steering unit by a fixed amplification factor to steering cylinder. The amplified flow is proportional to the revolution speed of steering wheel. With the features of high steering power, flexible steering and manual steering in case of engine failure stops, this type steering system are applicable to large wheeled vehicles and marine rudder.

型号说明 Order Code



功能符号 Function Code



LFA、LFB 型流量放大阀

LFA, LFB Type Flow Amplifiers

主要技术参数 Main Specification

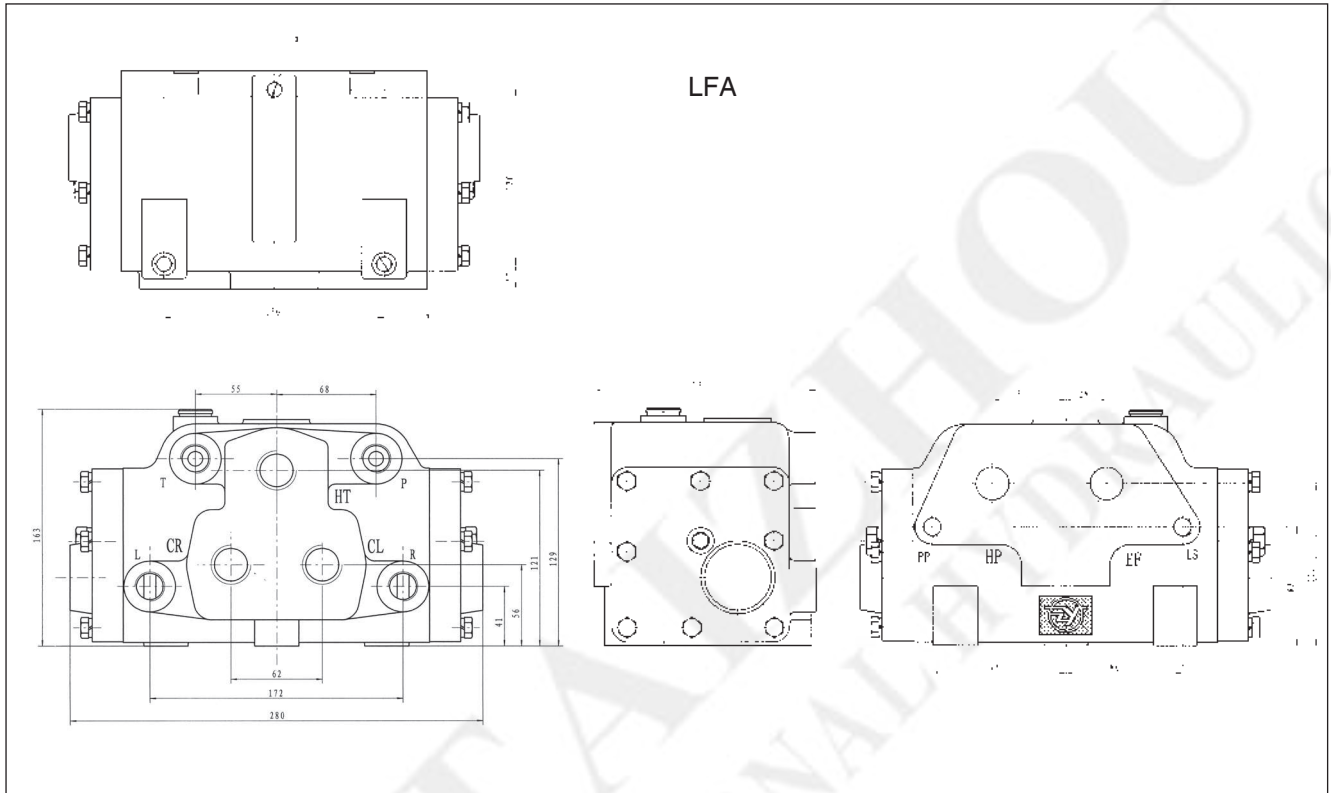
流量放大阀 Flow Amplifiers	放大倍数 Amplification Factor	101-5TX型转向器排量 Displacement of 101-5TX Type				
		160 mL/r	200 mL/r	250 mL/r	315 mL/r	400 mL/r
LFA	5	800	1000	1250	1575	2000
LFA	8	1280	1600	2000	—	—
LFB	5	800	1000	1250	1575	2000
LFB	8	1280	1600	2000	2520	3200

型号 Type	放大倍数 Amplification Factor	最大入口流量 Max. input Flow (L/min)	最大入口压力 Max. input Pressure (MPa)	转向安全阀 调压范围 Relief Valve Pressure Range (MPa)	缓冲阀 调压范围 Shock Valves Pressure Range (MPa)	弹簧控制压力 Control Spring Pressure (MPa)	背压阀开启 压力 Back Valve Opening Pressure (MPa)			
LFA5	5	250	25	10~17.5	16~25	0.7	—			
LFA8	8									
LFB5	5	400	25				10~17.5	16~25	0.7	0.5
LFB8	8									

LFA型流量放大阀

LFA Type Flow Amplifiers

连接尺寸 Mounting Data



螺纹连接 Thread Connection

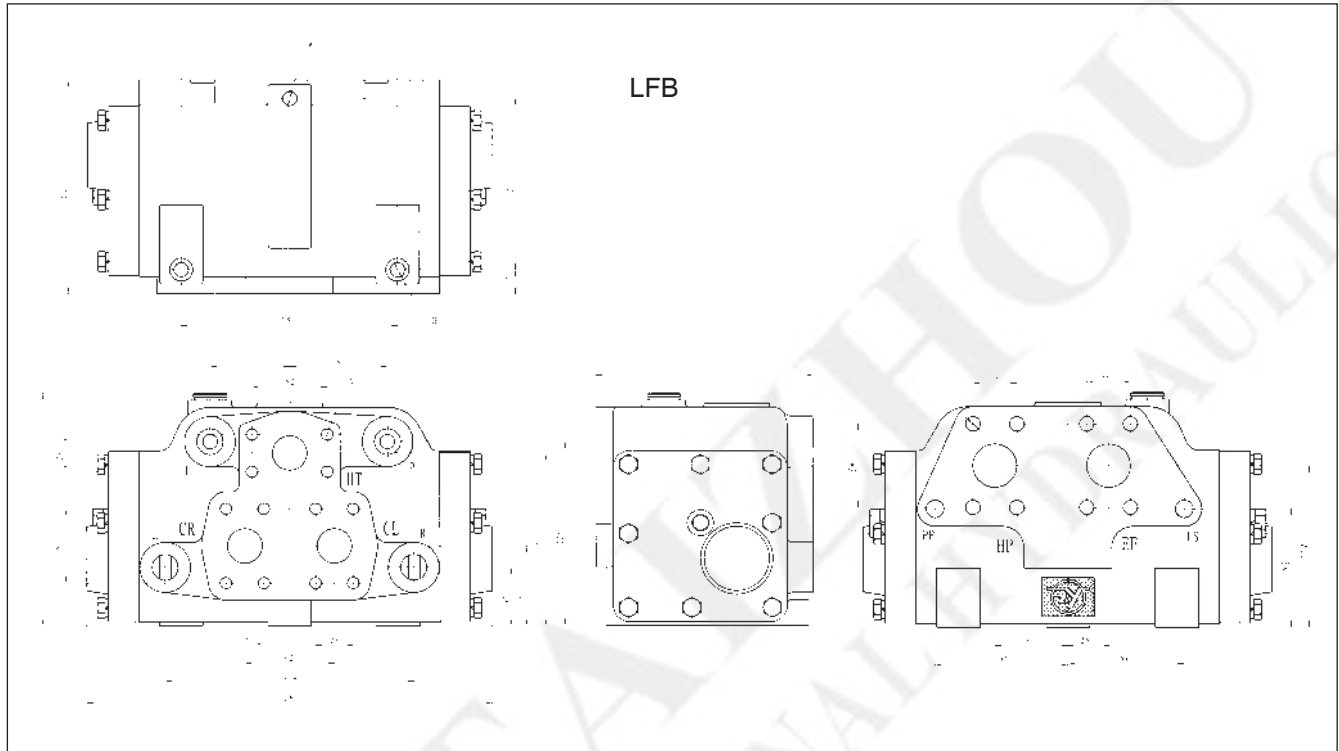
油口螺纹 Ports Threads

代码 Code	HP、EF油口 Ports HP, EF	HT、CL、CR油口 Ports HT, CL, CR	P、T、L、R、油口 Ports P, T, L, R	PP、LS油口 Ports PP, LS	连接螺纹W Mounting W	连接螺纹H Mounting H
A	M27×2 Depth 20	M27×2 Depth 20	M20×1.5 Depth 20	M12×1.5 Depth 14	M10×1.5 Depth 16	M10×1.5 Depth 20
B	G3/4 Depth 20	G3/4 Depth 20	G1/2 Depth 20	G1/4 Depth 14	M10×1.5 Depth 16	M10×1.5 Depth 20
C	1 1/16-12UN Depth 20	1 1/16-12UN Depth 20	3/4-16UNF Depth 20	7/16-20UNF Depth 14	7/16-14UNC Depth 16	7/16-14UNC Depth 20

LFB型流量放大阀

Model LFB Flow Amplifiers

连接尺寸 Mounting Data



法兰连接 Flange Connection

油口螺纹 Ports Threads

代码 Code	HP、EF油口 Ports HP, EF	HT、CL、CR油口 Ports HT, CL, CR	P、T、L、R、油口 Ports P, T, L, R	PP、LS油口 Ports PP, LS	连接螺纹C Mounting C	连接螺纹V Mounting V	连接螺纹W Mounting W	连接螺纹H Mounting H
A	Φ30	Φ24	M20×1.5 Depth 20	M12×1.5 Depth 14	M12 Depth 14	M10 Depth 14	M10×1.5 Depth 16	M10×1.5 Depth 20
B	Φ30	Φ24	G1/2 Depth 20	G1/4 Depth 14	7/16-14UNC Depth 14	3/8-16UNC Depth 14	M10×1.5 Depth 16	M10×1.5 Depth 20
C	Φ30	Φ24	3/4-16UNF Depth 20	7/16-20UNF Depth 14	7/16-14UNC Depth 14	3/8-16UNC Depth 14	7/16-14UNC Depth 16	7/16-14UNC Depth 20

FZ 型转向柱

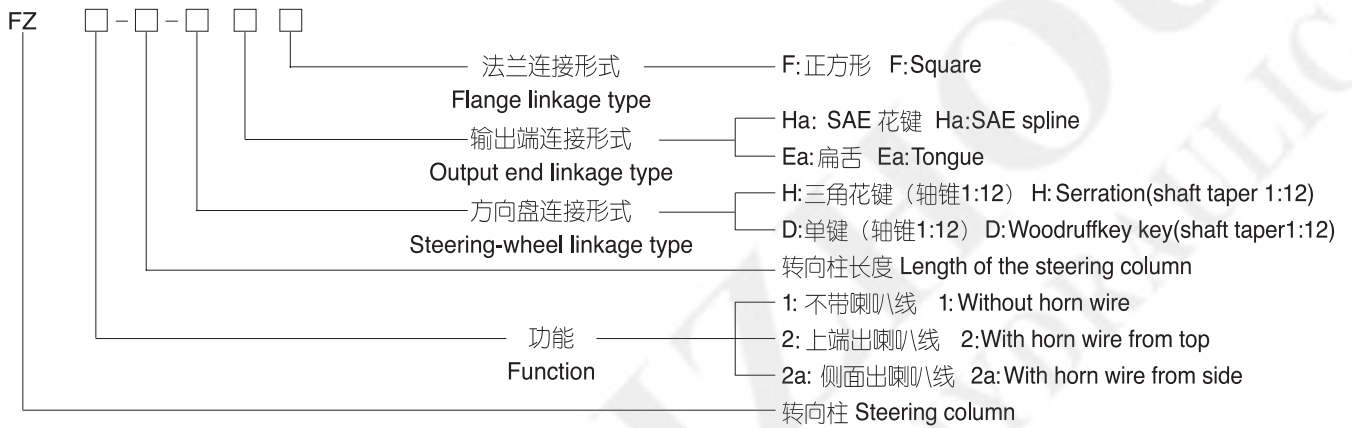
FZ Type Steering Columns

FZ型转向柱与我厂转向器配套使用，现有多种规格供用户选用。

FZ Type steering column suits all type of steering units.

We offer a wide range of specifications which are available to customers.

型号说明 Order Code



主要技术参数 Main Specification

型号 Type	长度系列 Length series (mm)	允许最大载荷 Max.permissible load (N·m)	
		动载荷 dynamic	静载荷 static
FZ1, FZ2, FZ2a	140 200 225 250 275 300 325 350 375 400 425 450 475 500 550 600 650 700 750 800 850 900 950 1000 1100 1200	80	300

推荐连接示意图 Recommendable Mounting Example

转向柱与转向器之间最好不夹装其它零件。
No other parts be mounted between steering unit and steering column.

