

10系列 10 Series

10系列全液压转向器的阀体为集成式结构，产品可以集成插装阀，例如：集成系统压力控制阀。

10系列产品广泛应用于多种工农业自行走机械的主机和船舶操舵的转向系统，实现输入较小的力，控制较大阻力的转向油缸的动作；操纵轻便、灵活，安全可靠；集成的单向阀可以防止系统压力油的反向流动，并防止出现操作“打手”现象；集成的压力控制阀，可以实现转向系统的工作压力、缓冲压力的控制。

10系列产品的连接尺寸符合国际标准。10系列产品按照转定子啮合副的结构，可以分为6/7齿结构和4/5齿结构两大系列。

6/7齿结构系列：按照连接尺寸划分为101、102、103系列（其中：102系列的连接尺寸与BZZ系列的连接尺寸一致）；

4/5齿结构系列：定义为109系列，适应特殊用户的需求，派生出119、129系列。

10系列产品均集成入口单向阀；每个系列按照是否集成插装压力阀的情况又可以分为两个系列，即缺省和带S；缺省表示不带集成压力阀，带S表示带集成压力阀，对于开芯无反应型产品，集成安全阀和缓冲阀以代码1表示，仅集成安全阀以代码4表示。

Hydraulic Steering Unit 10 series is integral hydraulic steering unit, the valve body of rotary valve is integral structure, then the steering unit can integrate with cartridge valve, such as the pressure control valve of the integral system.

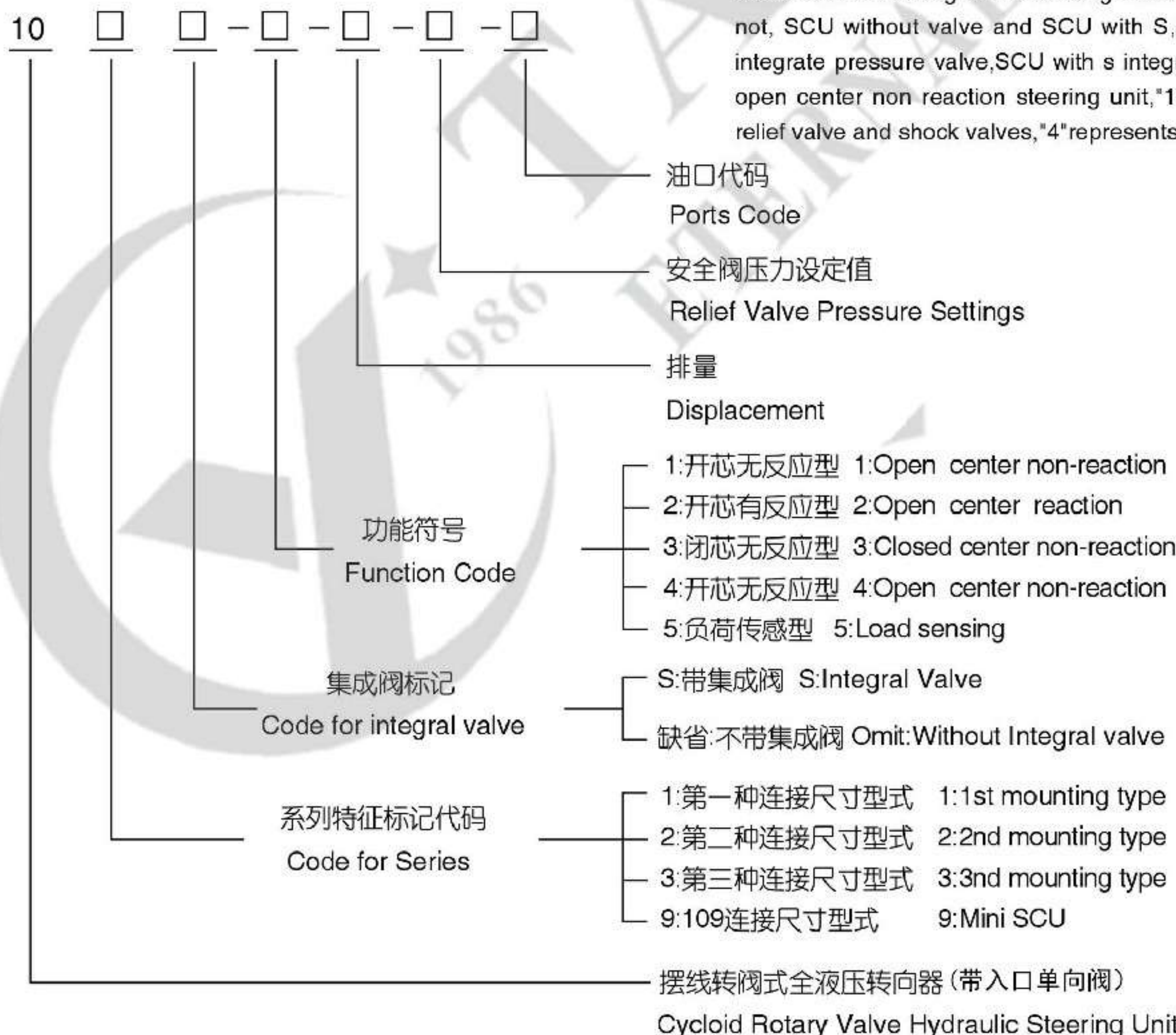
Hydraulic Steering Unit 10 series is widely used in the steering control system of different kinds of engineering vehicles, such as the steering system of many kinds of industrial and agricultural mobile machinery forklift, loader, road roller, tractor, combine harvester, and the ship helm etc. The steering unit can control the steering cylinder with bigger resistance force by inputting minor force; It's easier, flexible and reliable; The integral check valve can prevent the system pressure oil from anti-vibration, and prevent from "hit-hand" during the steering operation; Integral pressure control valve can control the operation pressure and the shock pressure of the steering system.

The mounting dimensions of Hydraulic Steering Unit 10 series are consistent with the international standard. According to the structure of gerotor set, Hydraulic Steering Unit 10 series can be divided into 2 series: 6/7 teeth structure steering unit and 4/5 teeth structure steering unit.

Hydraulic steering unit with 6/7 teeth structure: according to the size, this series may be divided into 101, 102, 103 series (among these series, the mounting dimension of 102 series is consistent with that of BZZ series;) Hydraulic steering unit with 4/5 teeth structure: it's defined as 109 series; according to special requirement of special customers, then we develop 119 and 129 series on the base of 109 series.

10 series SCU integrate inlet check Valve; Each series may be divided into 2 series according to the steering unit integrating cartridge valve or not, SCU without valve and SCU with S, SCU without valve doesn't integrate pressure valve, SCU with s integrates pressure valve As for open center non reaction steering unit, "1" represents the SCU with relief valve and shock valves, "4" represents the SCU with relief valve.

型号说明 Model Code

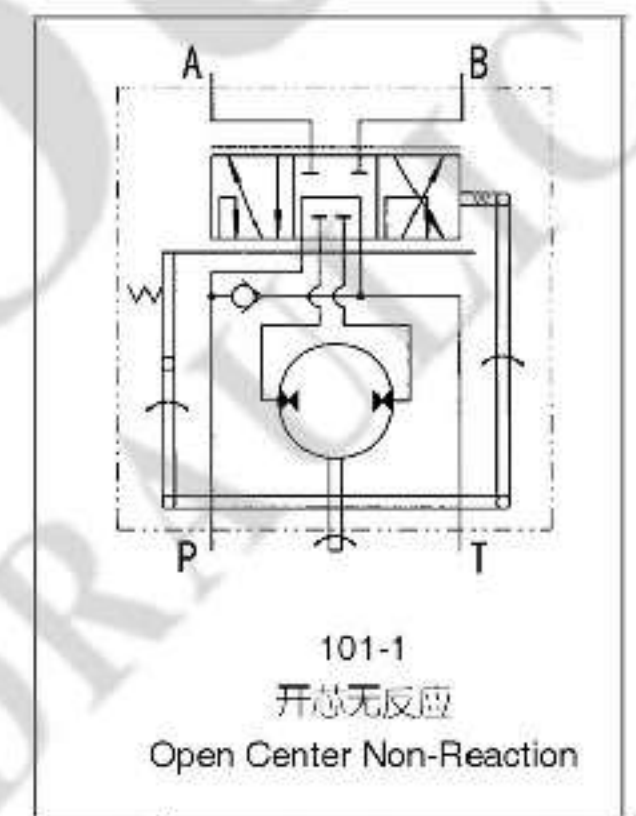
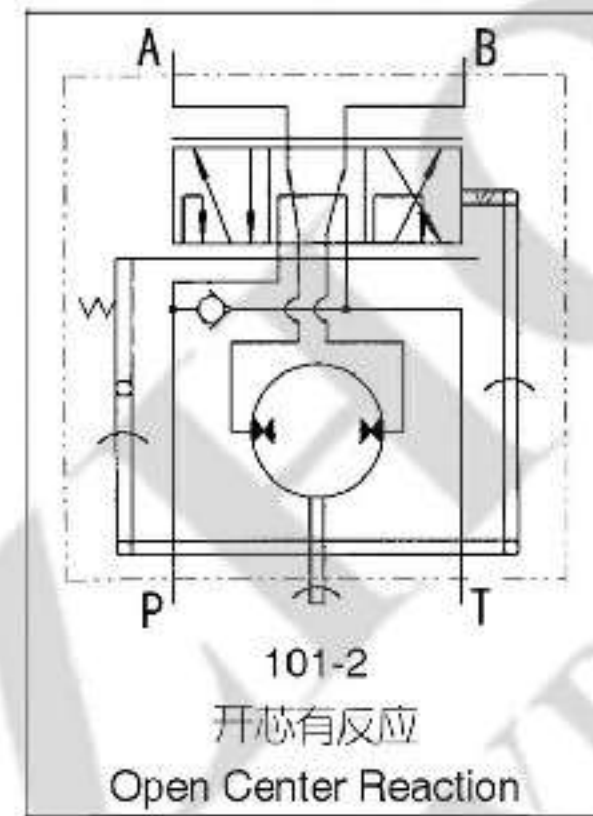
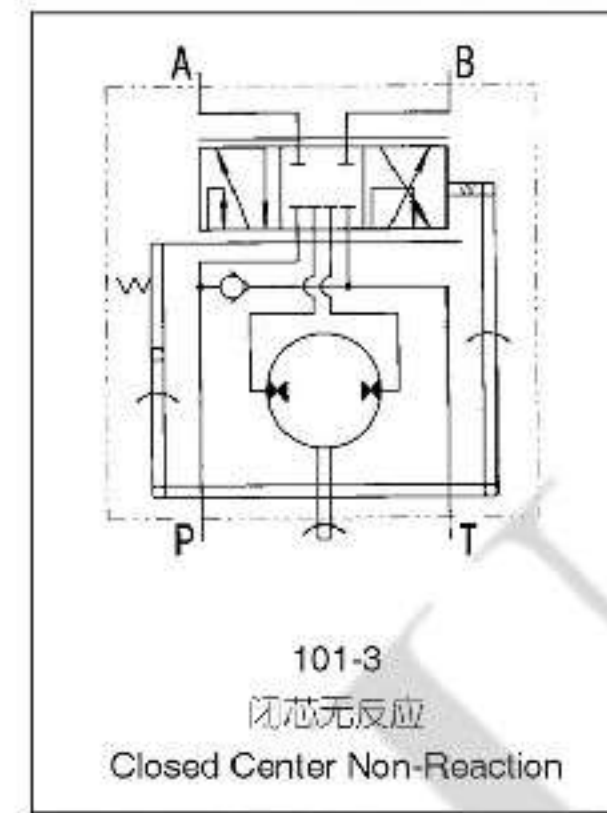
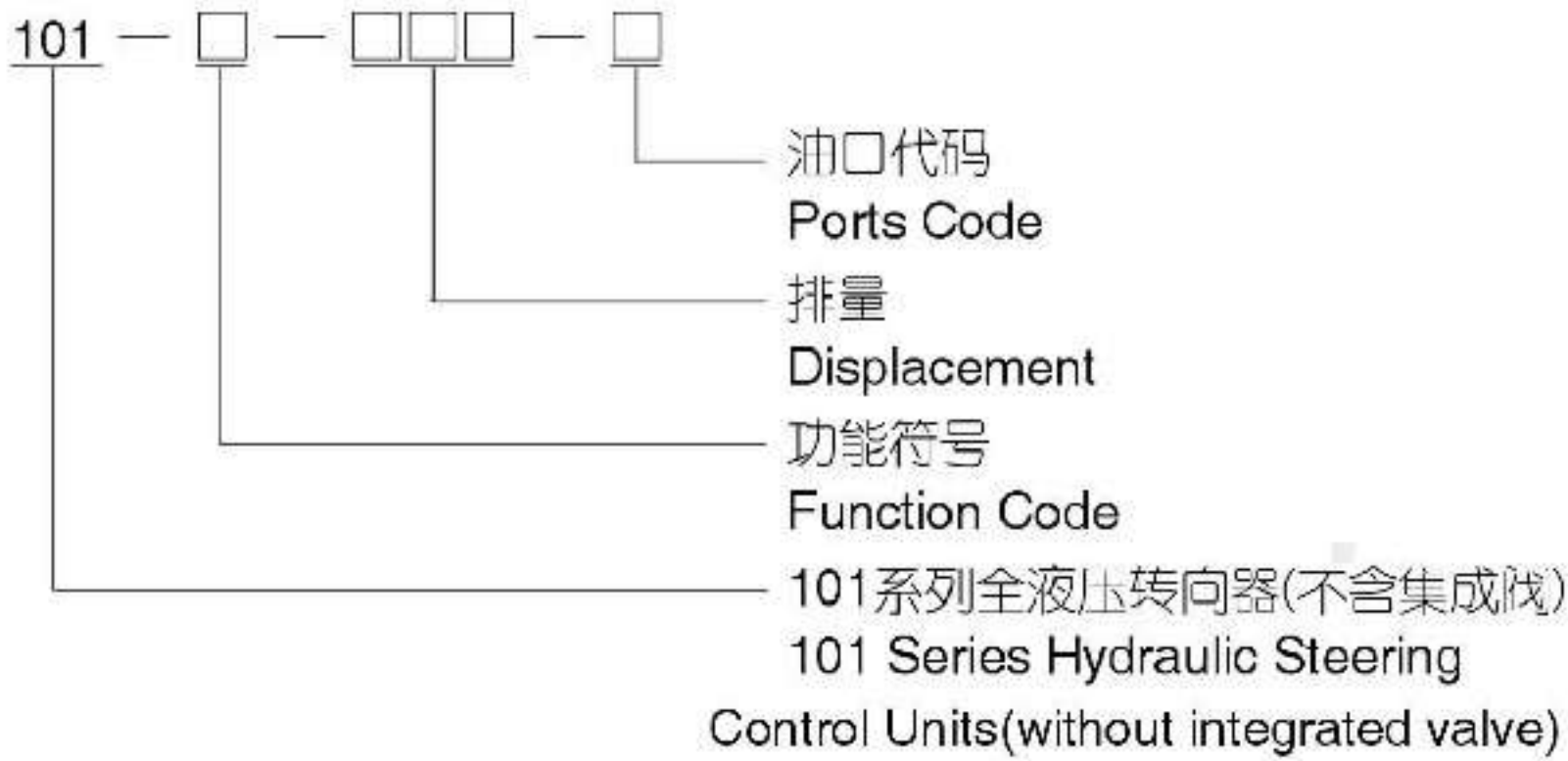


101-1,2,3系列全液压转向器

101-1,2,3 Series Hydraulic Steering Control Units (SCU)

功能符号 Function Code

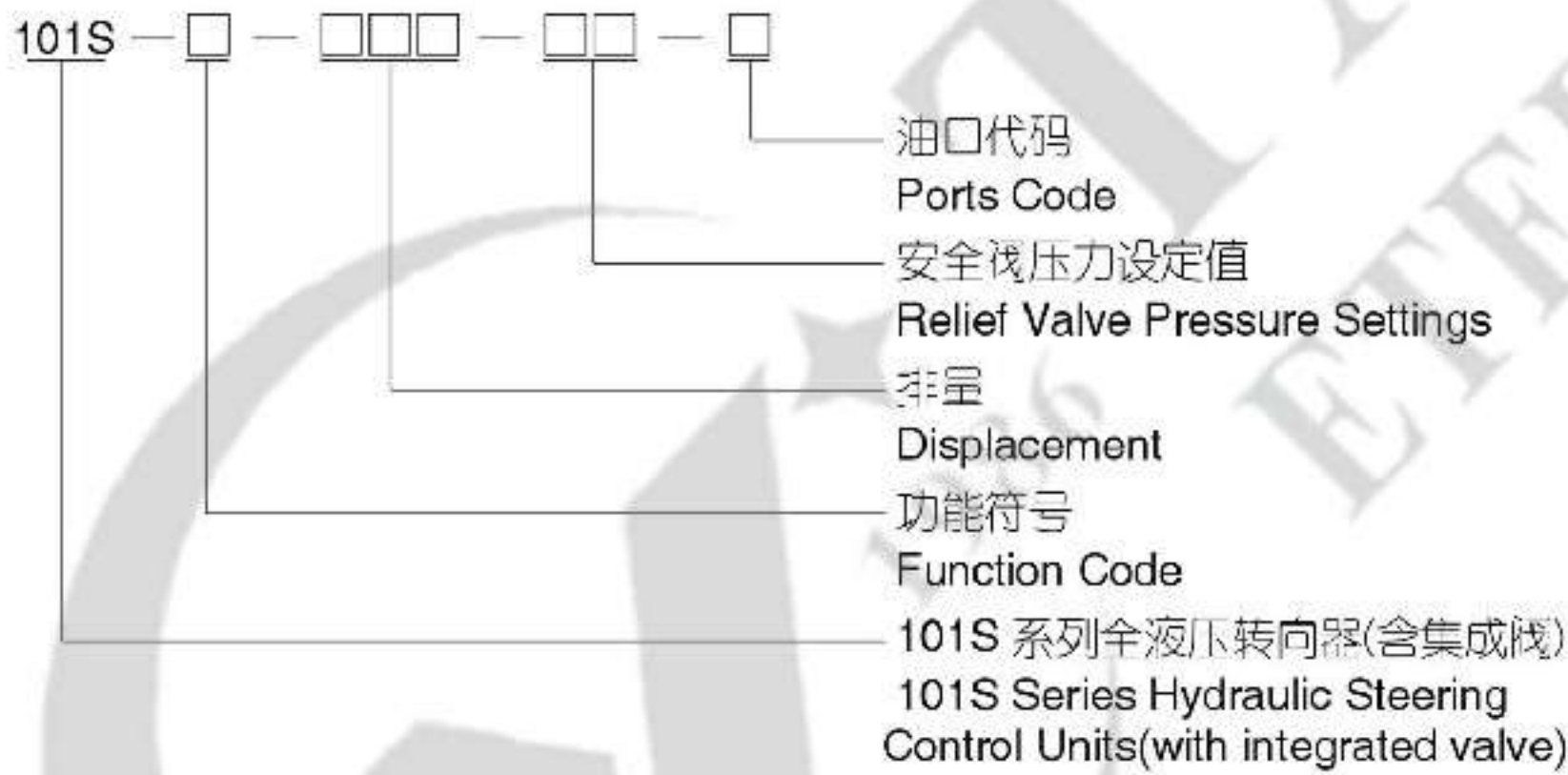
型号说明 Model Code



101S-1,2,4系列全液压转向器

101S-1,2,4 Series Hydraulic Steering Control Unit (SCU)

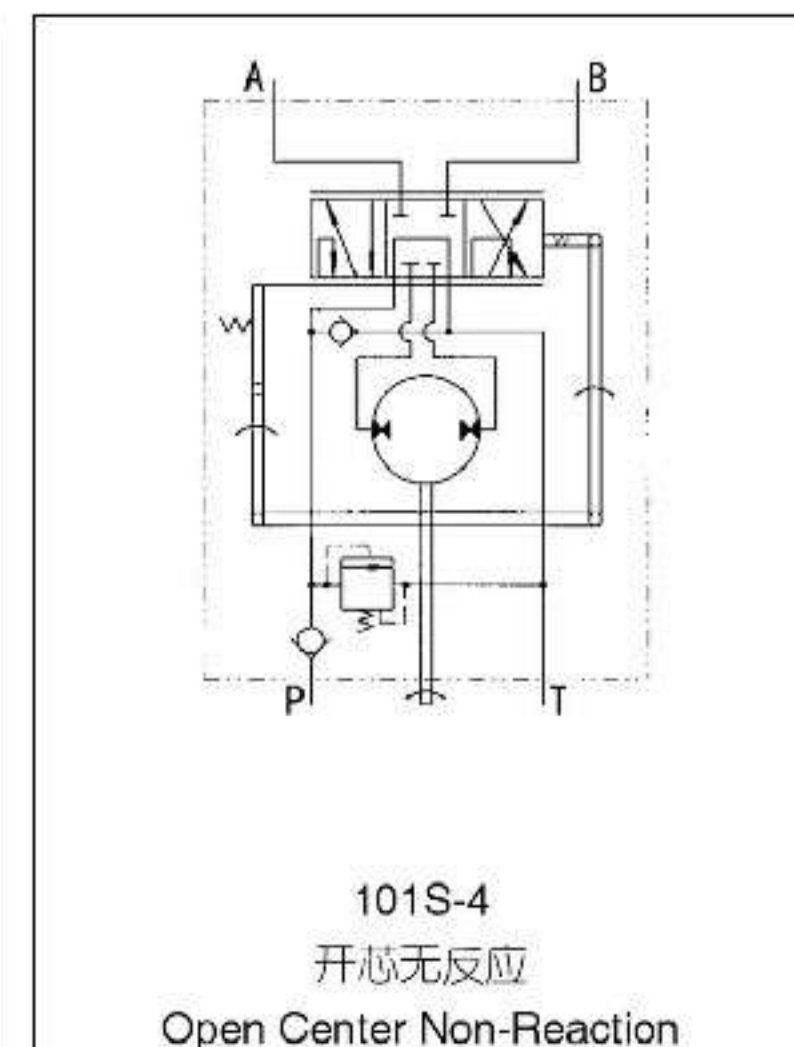
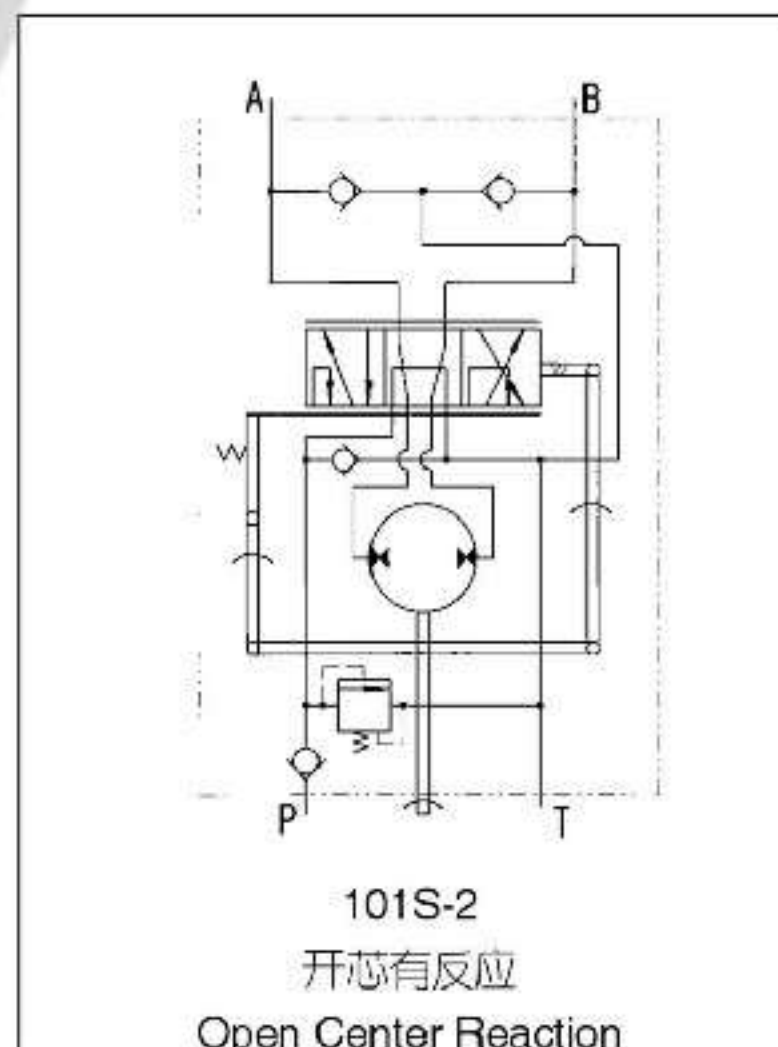
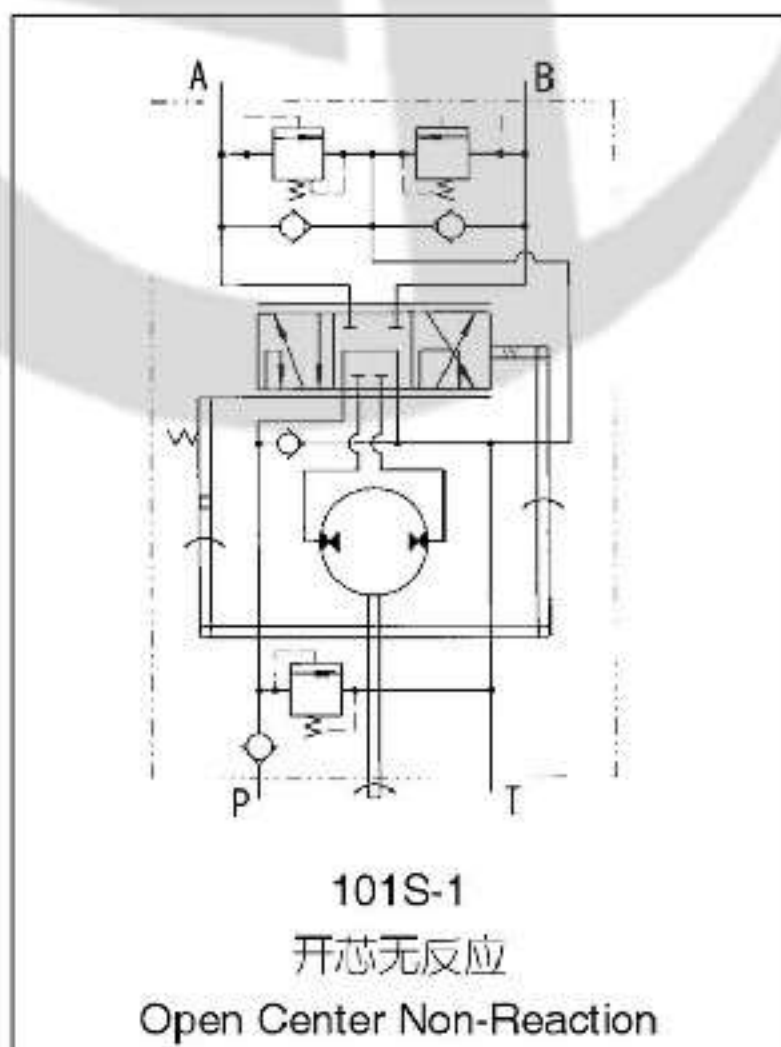
型号说明 Model Code



101S-1、2、4系列全液压转向器从结构到原理继承了101系列的全液压转向器的转向功能，101S系列转向器特点是在101系列的基础上将安全阀、缓冲阀、补油阀以及人口单向阀根据不同的要求设置在转向器壳体中，这种连接结构更加紧凑，使用更加方便。

SCU 101S-1,2,4 series inherits the steering function of 101 series both in the structure and in the principle. The feature of 101S series is to have the following valves functions incorporated inside one housing as follows: the relief valve, the shock valves, the suction valves and the check valve according to the different requirement upon the base of the 101 series. This kind of structure is more compact, and it's more convenient in operation.

功能符号 Function Code



101(S) 系列全液压转向器 101(S) Series Hydraulic Steering Control Unit

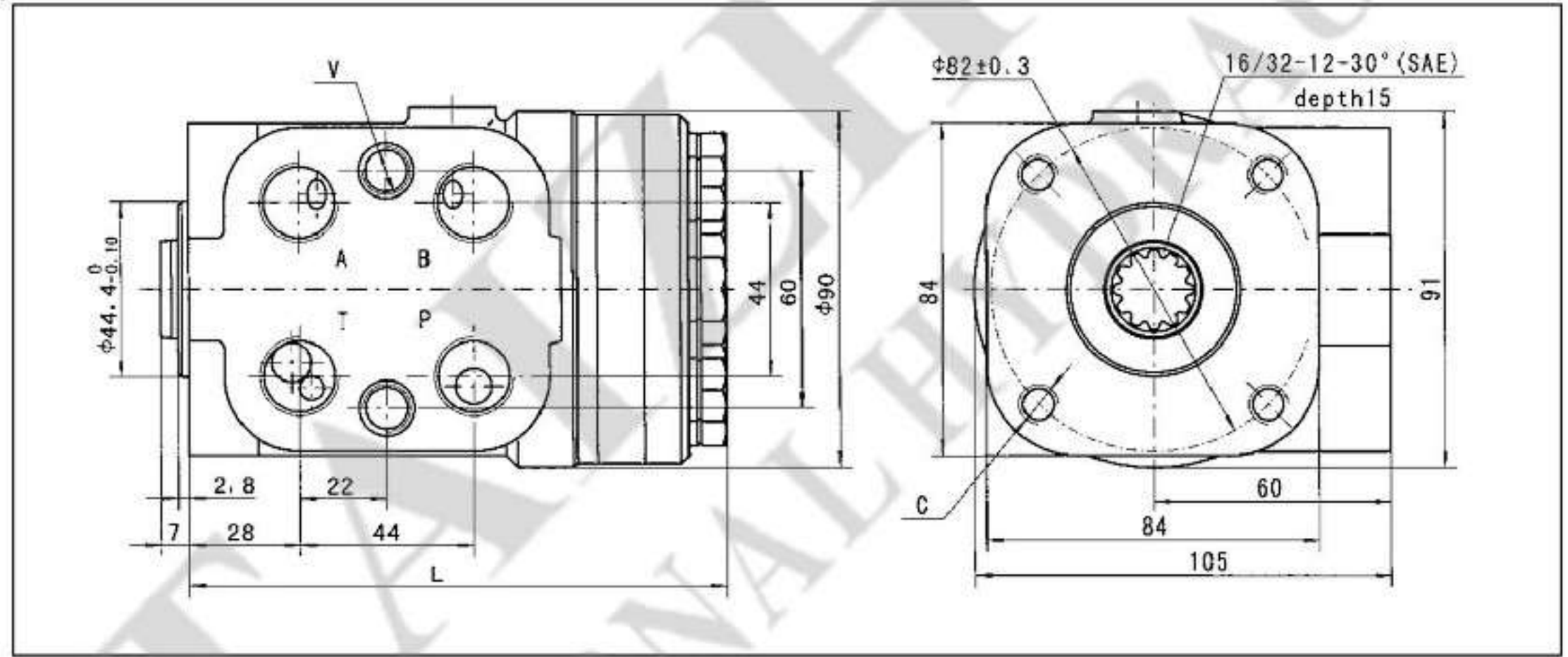


101-1,2,3系列全液压转向器 101-1,2,3 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 101-*****											
	1,2,3						1,3					
Function Code	1,2,3						1,3					
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Rated flow (L/min)	5	6	8	10	12.5	16	20	25	28	31.5	40	
Max. input pressure (MPa)	17.5											
Max. cont. back pressure (MPa)	2.5											
Weight (kg)	5.70	5.76	5.84	5.91	6.05	6.25	6.45	6.68	6.86	7.06	7.45	
Dimension L (mm)	130	132	134	137	140	145	150	156	161	166	176	

连接尺寸 Mounting Data



油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P, T, A, B	连接螺纹C Column Mounting C	连接螺纹V Valve Mounting V
A	M20×1.5	M10	M12
B	M20×1.5 O-ring		
C	M18×1.5		
D	M18×1.5 O-ring		M10×1
E	G1/2		
U	G1/2 O-ring		
G	M22×1.5		
Q	M22×1.5 O-ring		M12
M	3/4-16UNF O-ring		
F			3/8-16 UNC
I		M10	M10
N		M10×1.25	

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。

Note 1: Ports P, T, A, B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.

注2: 其他油口连接方式协议确定代号。

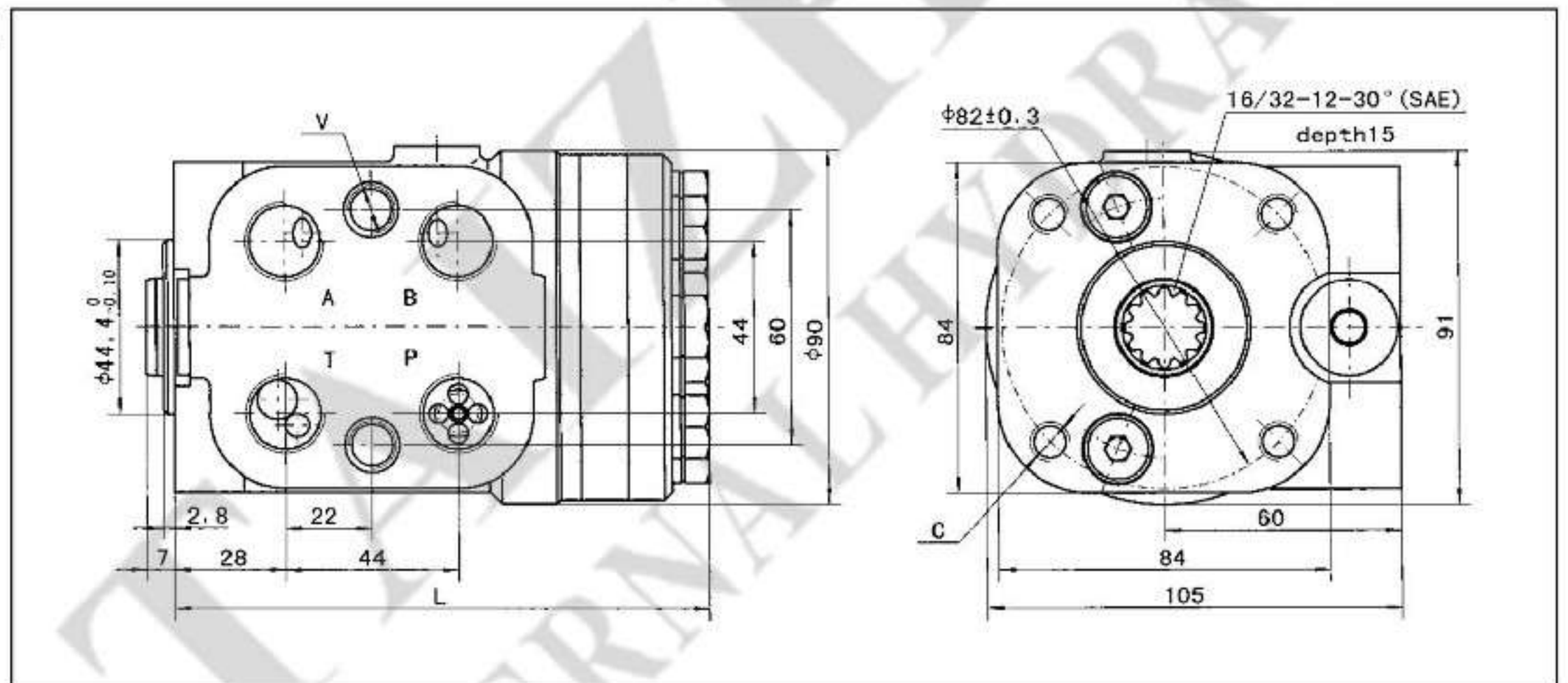
Note 2: The code of other ports dimensions will be listed in an agreement.

101S-1,2,4 系列全液压转向器
101S-1,2,4 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 101S-*****											
	1,2,4								1,4			
Function Code												
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Rated flow (L/min)	5	6	8	10	12.5	16	20	25	28	32	40	
Max. input pressure (MPa)	17.5											
Relief Valve Pressure Settings (MPa)	06, 07, 08, 10, 12, 14, 15, 16, 17.5											
Shock Valves Pressure Settings (MPa)	12, 13, 14, 16, 18, 20, 21, 22, 23.5											
Max. cont. back pressure (MPa)	2.5											
Weight (kg)	5.75	5.81	5.89	5.96	6.1	6.3	6.5	6.73	6.91	7.1	7.5	
Dimension L (mm)	130	132	134	137	140	145	150	156	161	166	176	

连接尺寸 Mounting Data



油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P,T,A,B	连接螺纹C Column Mounting C	连接螺纹V Valve Mounting V	
A	M20×1.5	M10	M12	
B	M20×1.5 O-ring			
C	M18×1.5			
D	M18×1.5 O-ring		3/8-16 UNC	M10×1
E	G1/2			
U	G1/2 O-ring			
M	3/4-16UNF O-ring			M12
F		3/8-24 UNF		
I		M10		
N		M10×1.25	M10	

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。
Note 1: Ports P,T,A,B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.
注2: 其他油口连接方式协议确定代号。
Note 2: The code of other ports dimensions will be listed in an agreement.

101(S)-5(T)(TE)(L)(E)(TX)系列全液压转向器 101(S)-5(T)(TE)(L)(E)(TX) Series Hydraulic Steering Control Unit (SCU)

101(S)-5(T)(TE)(L)(E)(TX)系列全液压转向器用于负荷传感型转向系统。

101S-5、101S-5L、101S-5E系列全液压转向器均为板式连接方式，与PVF*型优先阀采用板式连接后使用。

101S-5L系列全液压转向器在LL接口处引出了LS口的压力信号，将信号传送给电气控制系统；

101S-5E系列全液压转向器在EL接口处引出了A或B油口的压力信号，将信号传送给电气控制系统。

101S-5T、101S-5TE系列全液压转向器为管式连接方式，与PVL*或DYXL、YXL型优先阀采用管式连接后使用。

101S-5TE系列全液压转向器在EL接口处引出了A或B油口的压力信号，将信号传送给电气控制系统。

101-5T系列全液压转向器为管式连接方式，必须和DYXL、YXL型优先阀采用管式连接后使用，并且其系统安全阀设在优先阀上。

101-5TX系列全液压转向器处于中位时，其左右腔和回油是相连的，这种转向器和LFA、LFB型流量放大阀配套使用。

SCU 101(S)-5(T)(TE)(L)(E)(TX) series is used in the load sensing steering system .

SCU 101S-5,101S-5L, 101S-5E series adopt modulary mounting type and can only be used with PVF* type priority valve via modulary mounting .

SCU 101S-5L series guides the pressure signal of port LS out of prot LL, and transfers the pressure signal to the electrical control system .

SCU 101S-5E series guides the pressure signal of port A or B out of port EL. and then supplies the pressure signal to the electrical control system .

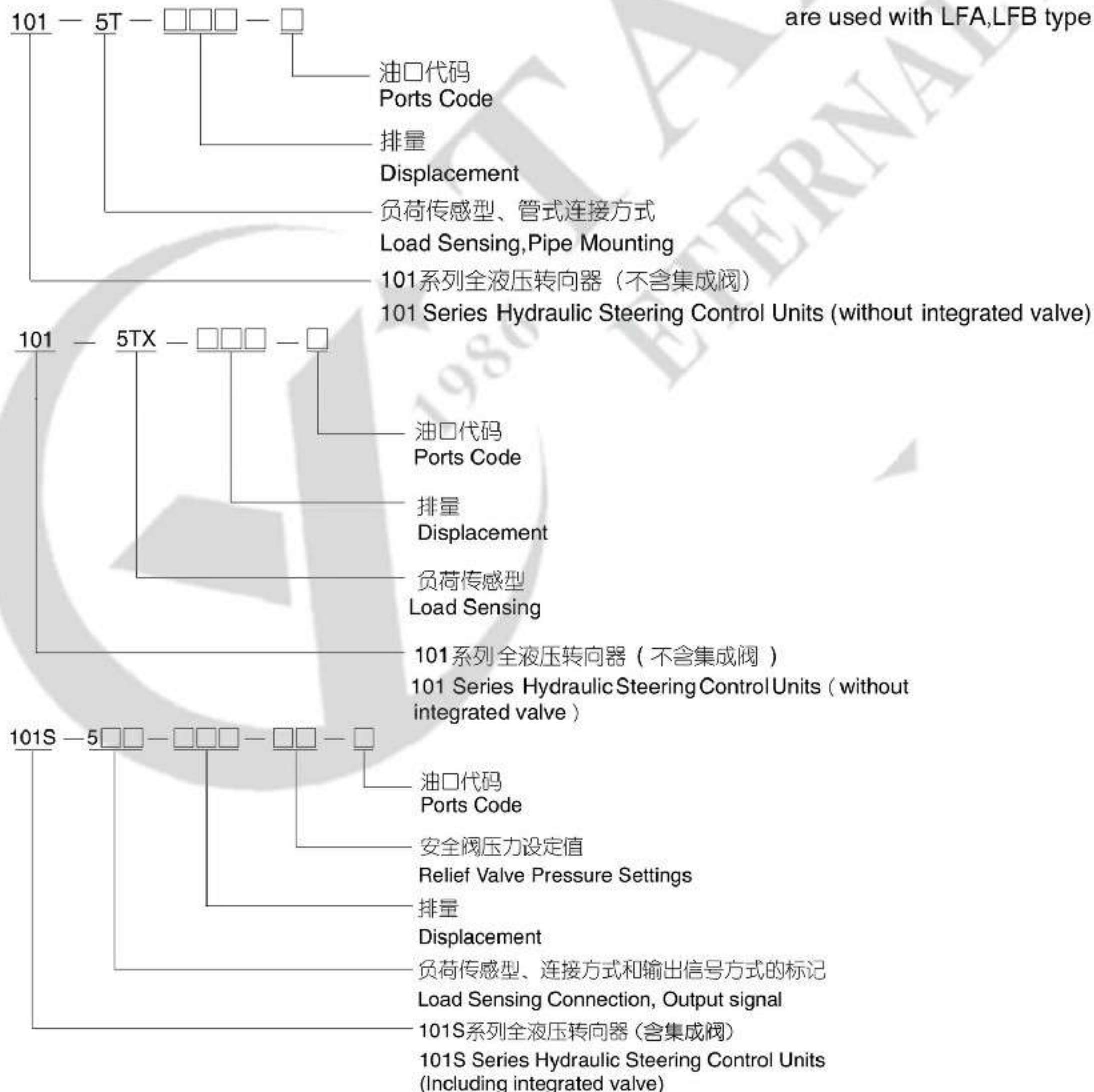
SCU 101S-5T,101S-5TE series adopts Pipe mounting and via pipe mounting can be used with PVL* or DYXL,YXL type priority valve .

SCU 101S-5TE series guides the pressure signal of the port A or B out of port EL.and then supplies the pressure signal to the electrical control system .

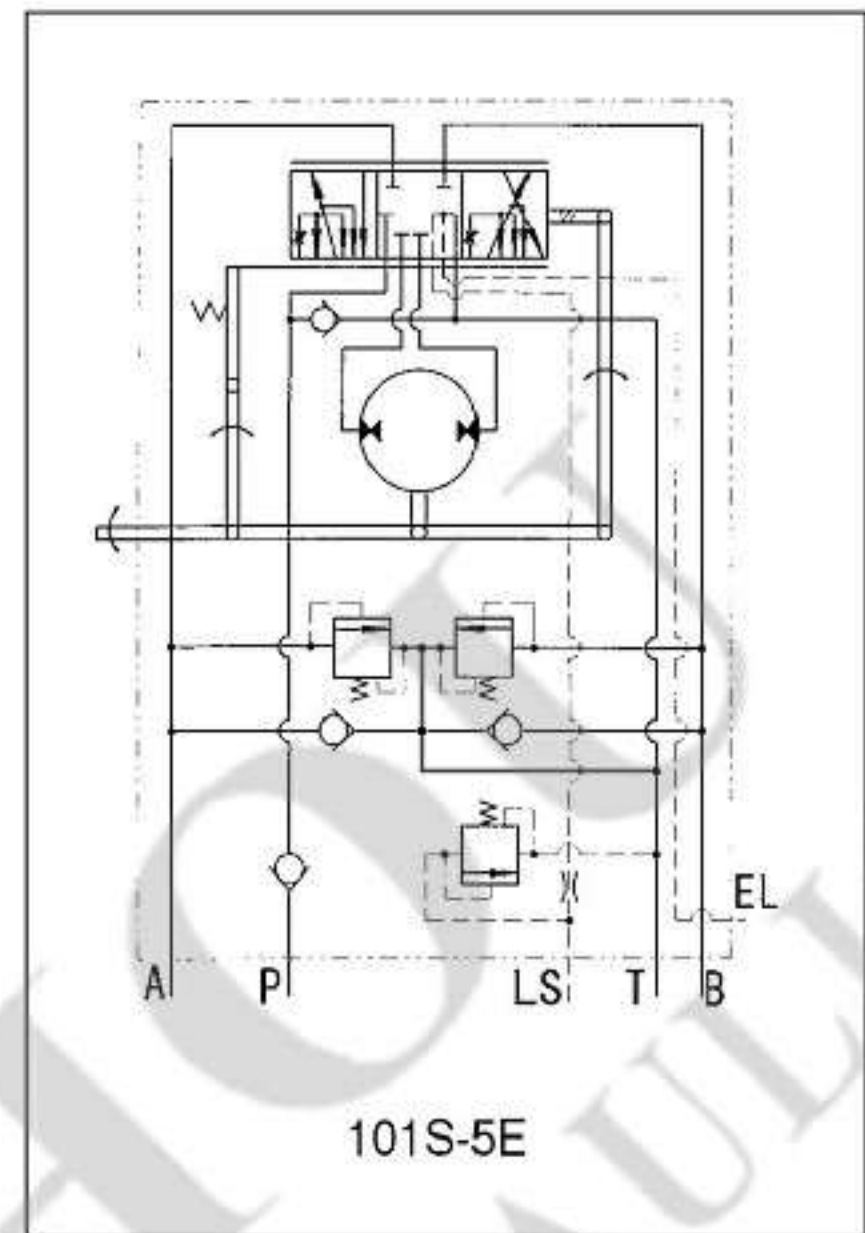
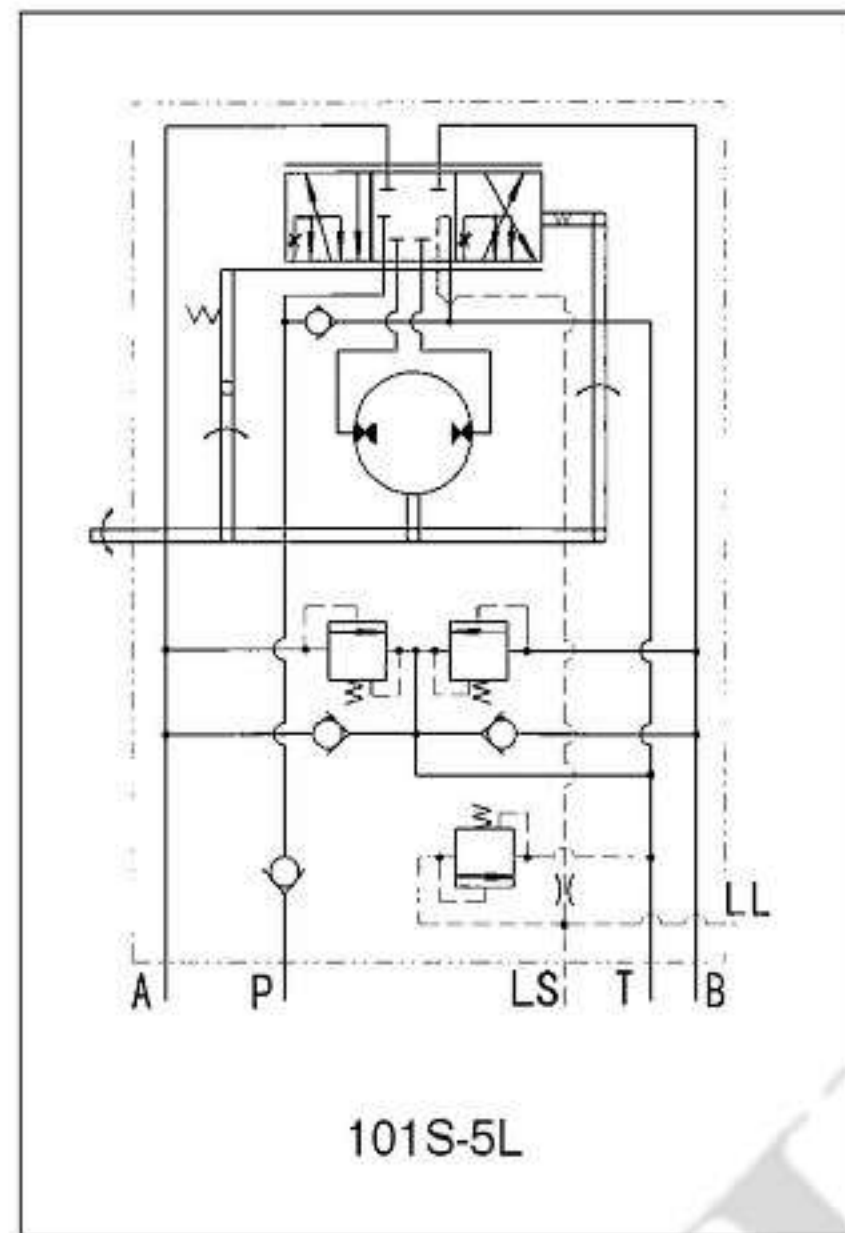
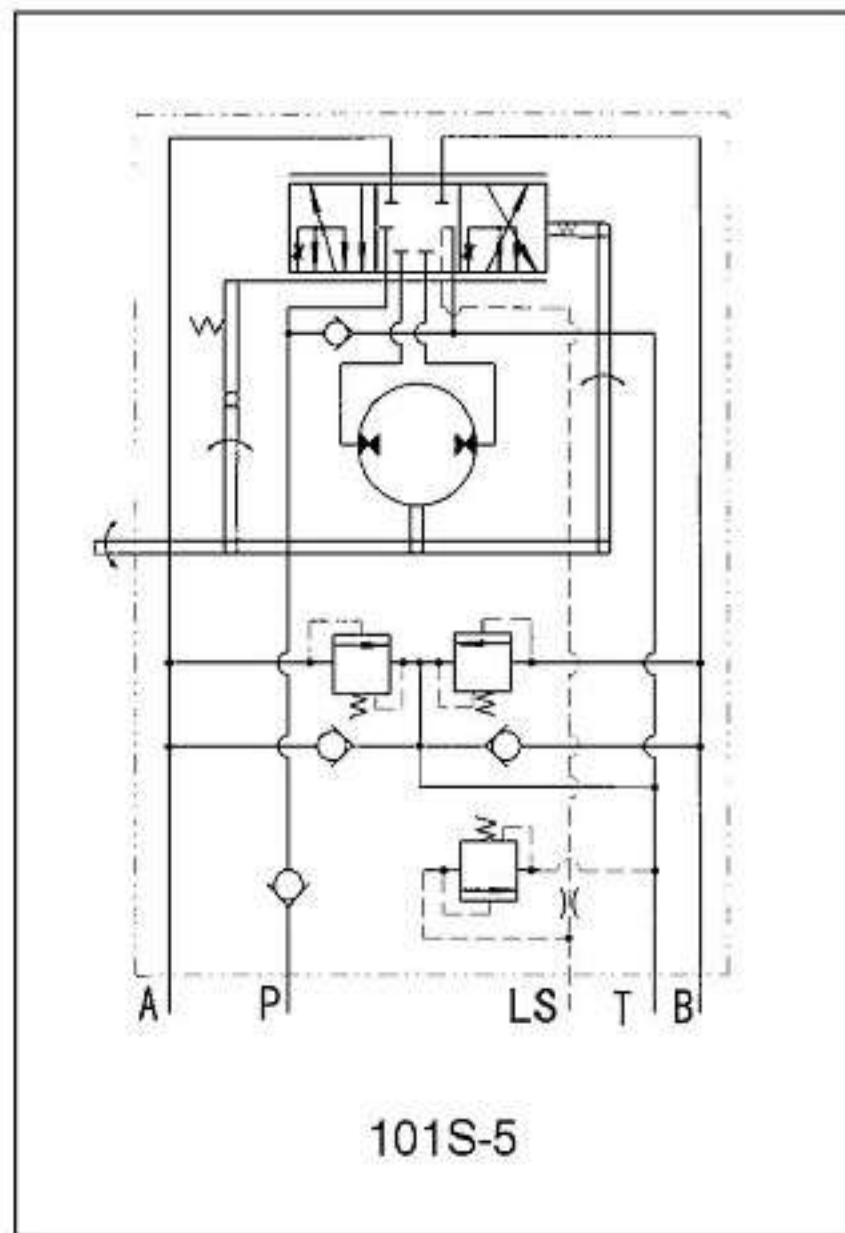
SCU 101-5T series adopts the pipe mounting, it can be used only after the pipe mounted with the DYXL,YXL type priority valve. and the relief valve is integrated in the priority valve .

When the 101-5TX series SCU is in neutral position, both of its left and right cavity are connected with T port. This kind of SCU are used with LFA,LFB type flow amplifiers.

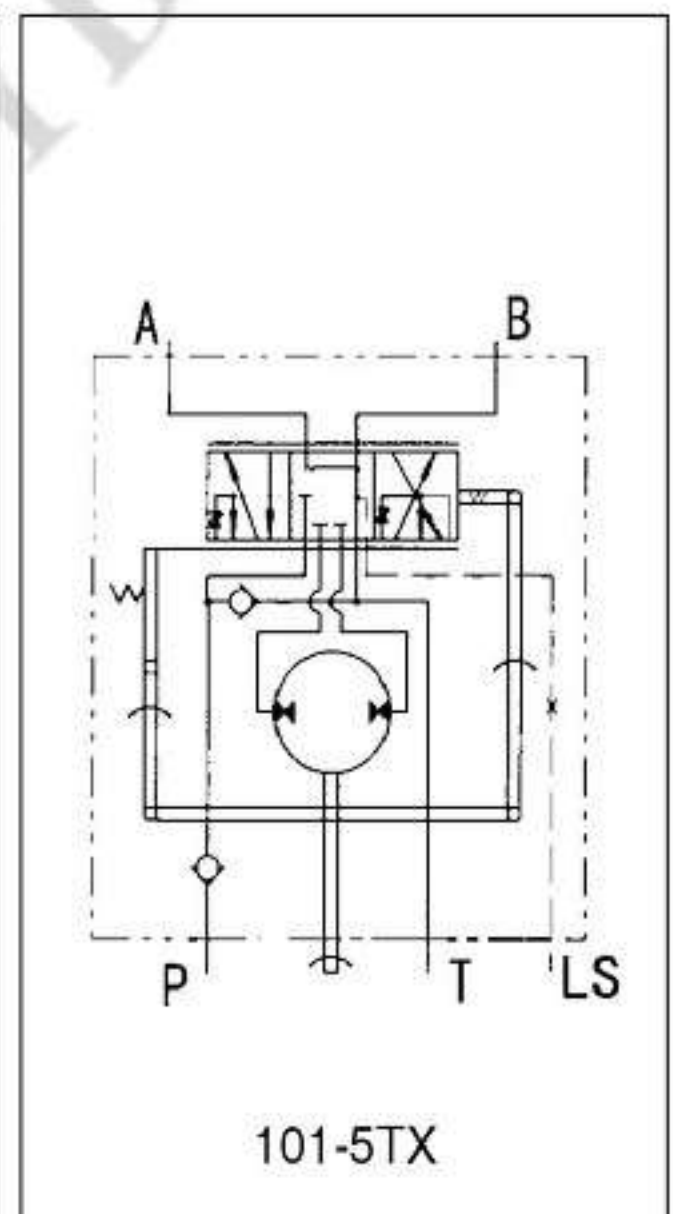
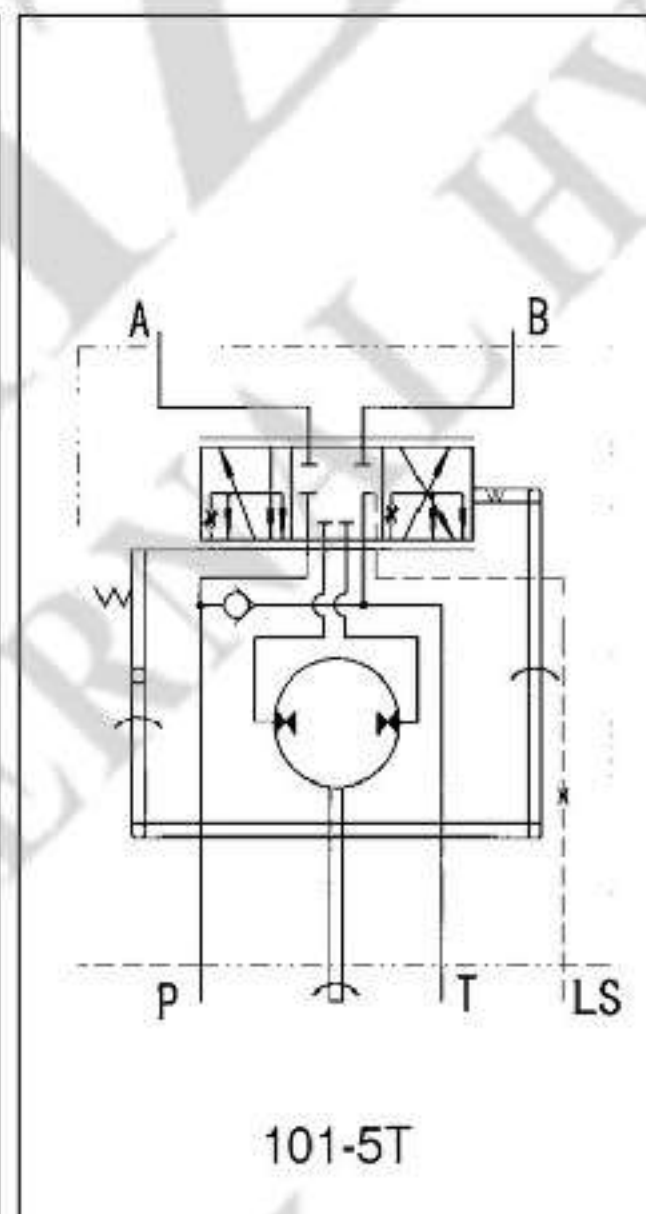
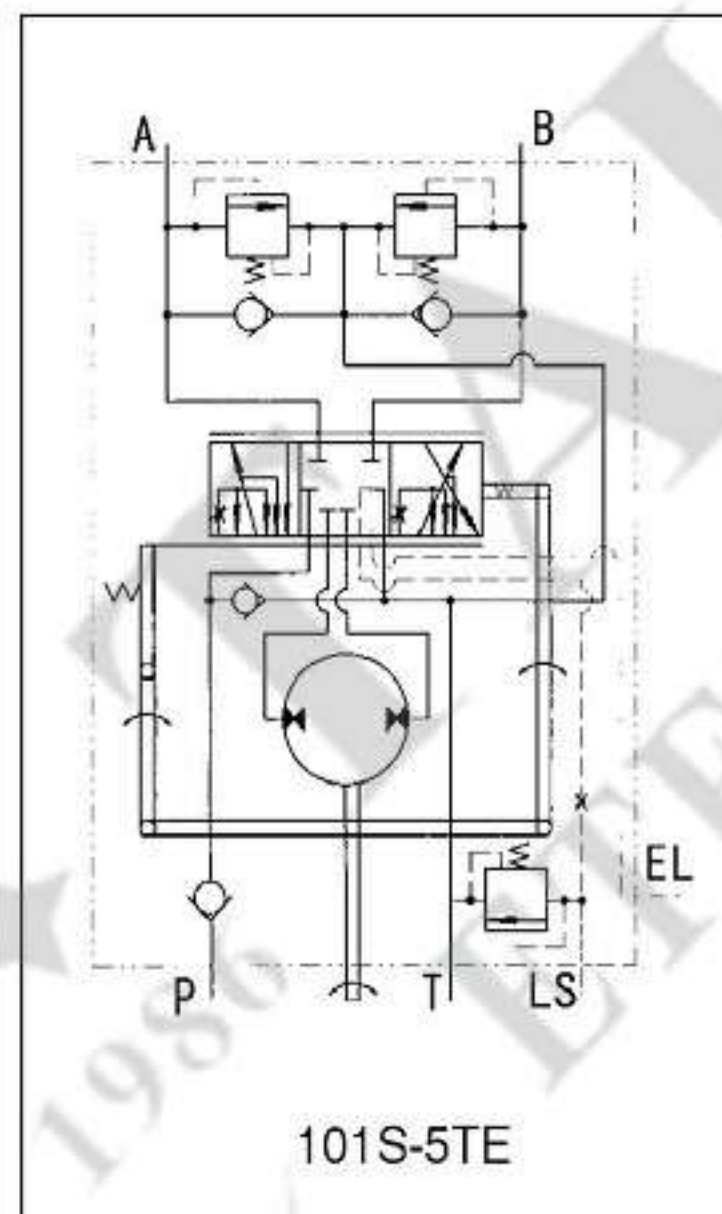
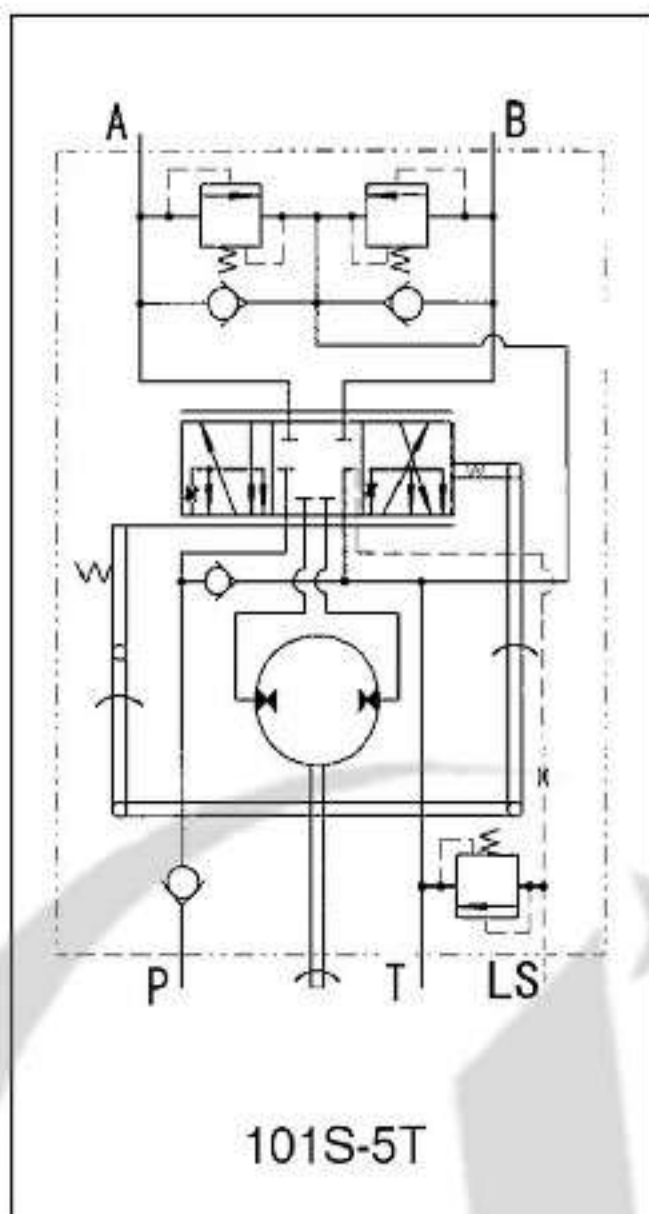
型号说明 Order Code



■ 功能符号 Function Code



板式连接
Modularity Mounting



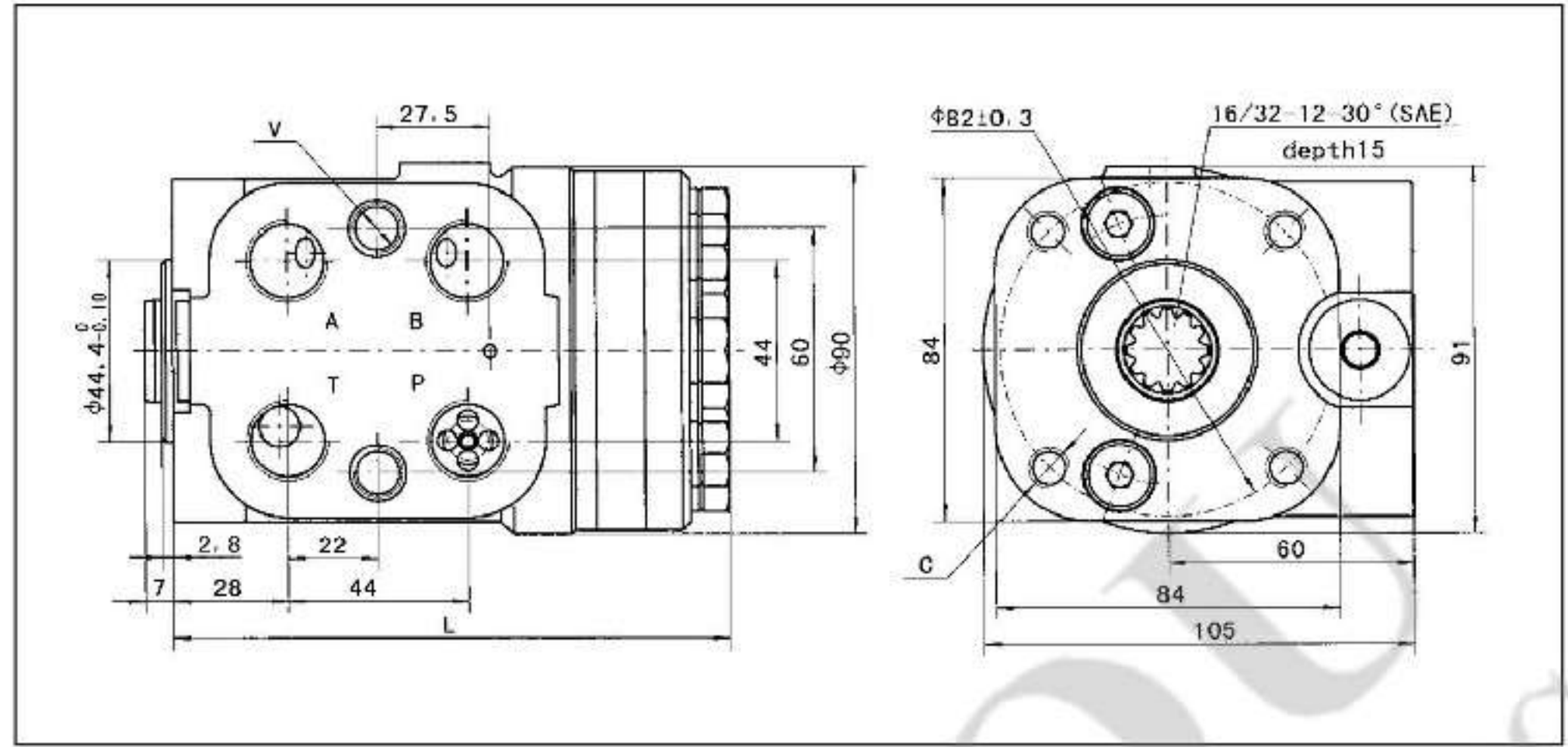
管式连接
Pipe Mounting

■ 主要技术参数 Main Specification

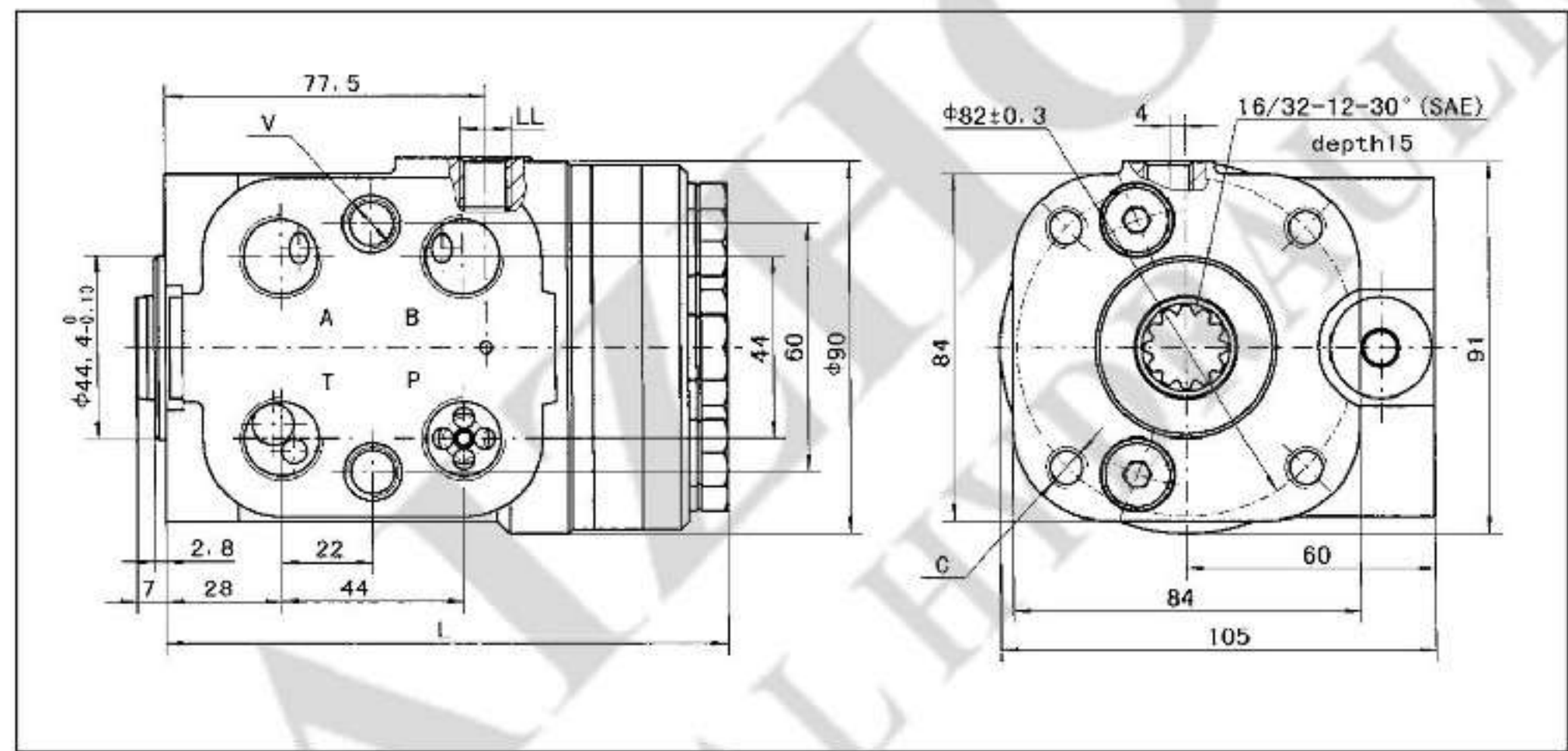
Parameters	Type 101-5T(TX)-*****, 101S-5(T)(TE)(L)(E)-*****											
	50	63	80	100	125	160	200	250	280	315	400	
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Max. input speed (rpm)	100								75			
Max. input pressure (MPa)	17.5											
Relief Valve Pressure Settings (MPa)	06,07,08,10,12,14,15,16,17.5											
Shock Valves Pressure Settings (MPa)	12,13,14,16,18,20,21,22,23.5											
Max. Cont. Back pressure (MPa)	2.5											
Weight (kg)	5.75	5.81	5.89	5.93	6.1	6.3	6.5	6.73	6.91	7.1	7.5	
Dimension L (mm)	130	132	134	137	140	145	150	156	161	166	176	

■ 连接尺寸 Mounting Data

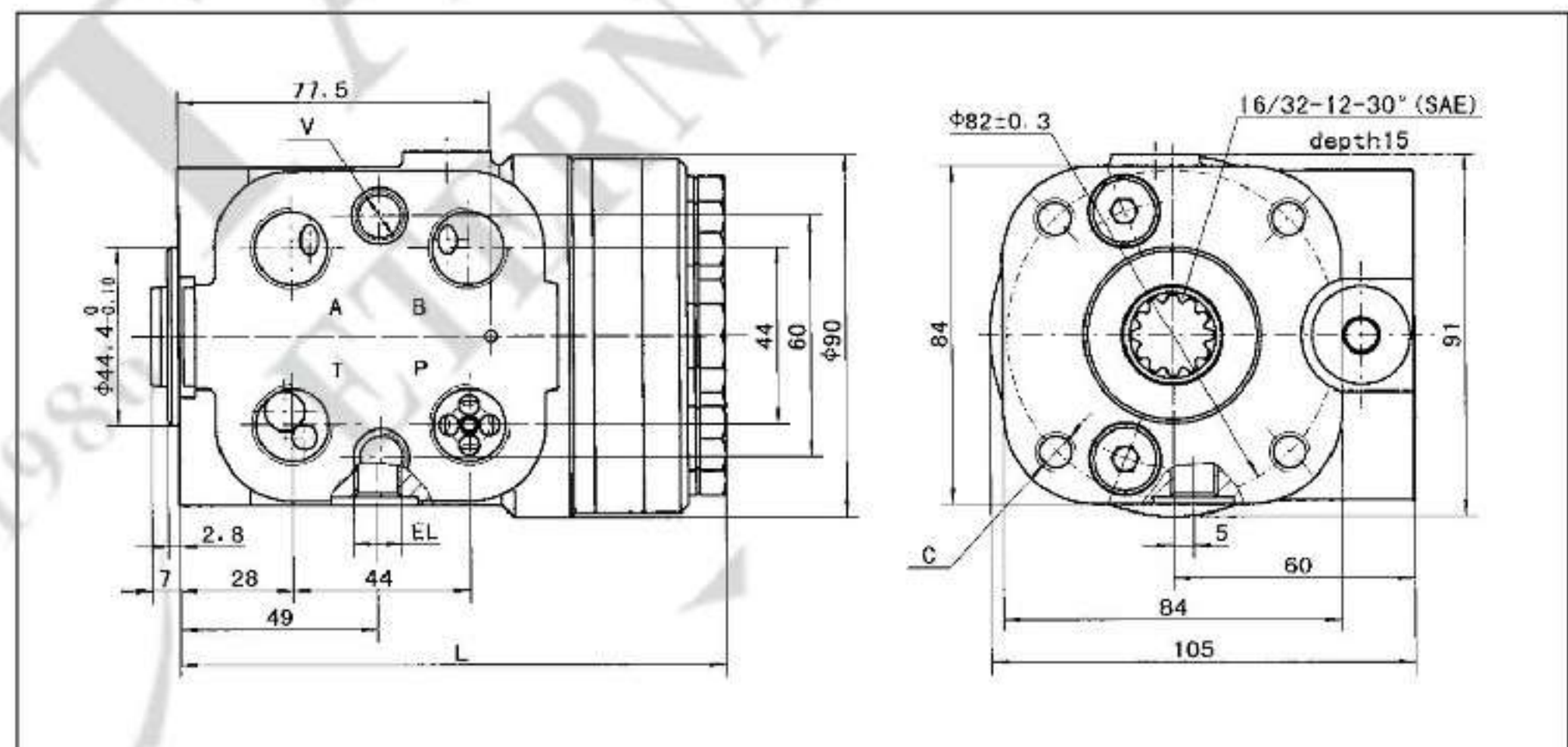
101S-5



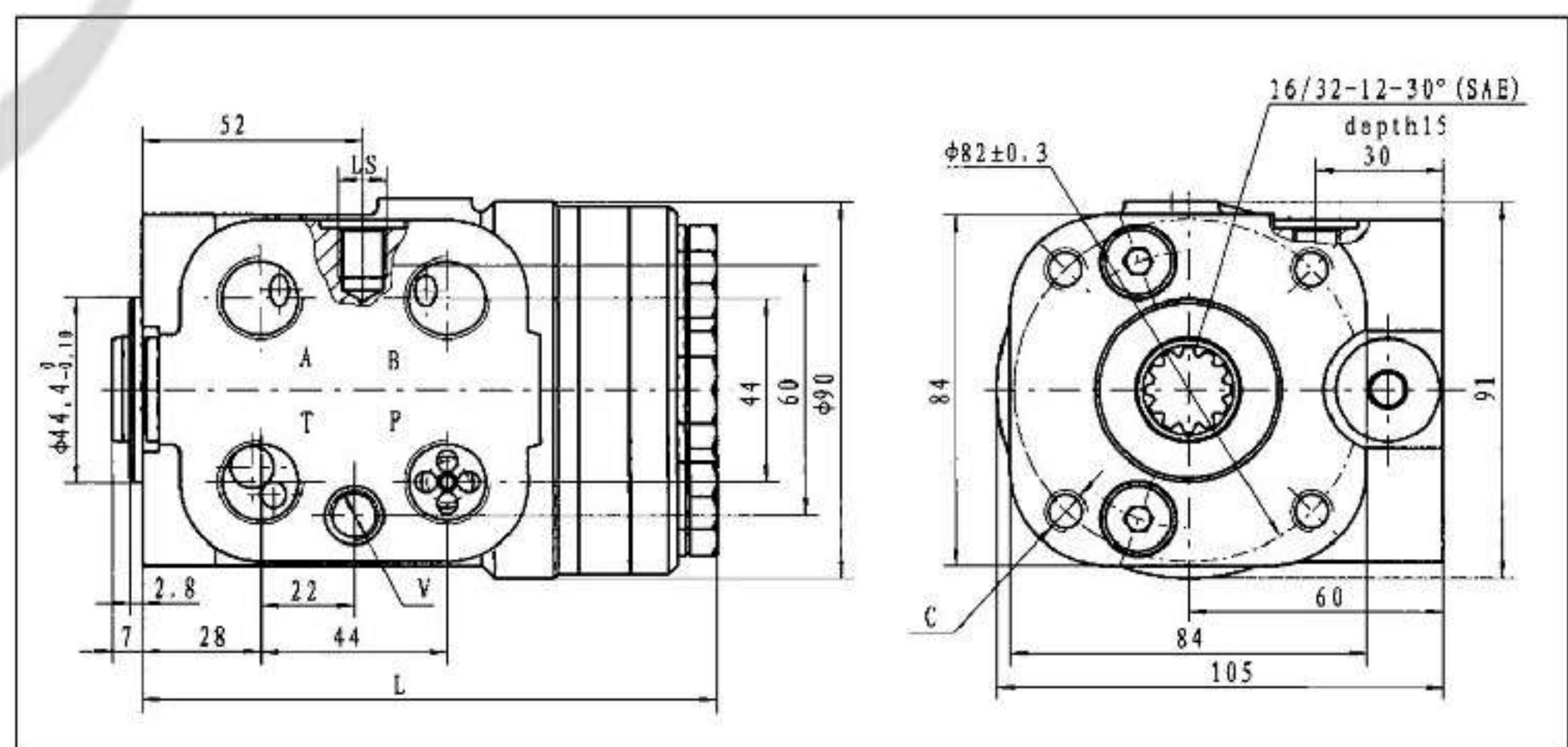
101S-5L



101S-5E

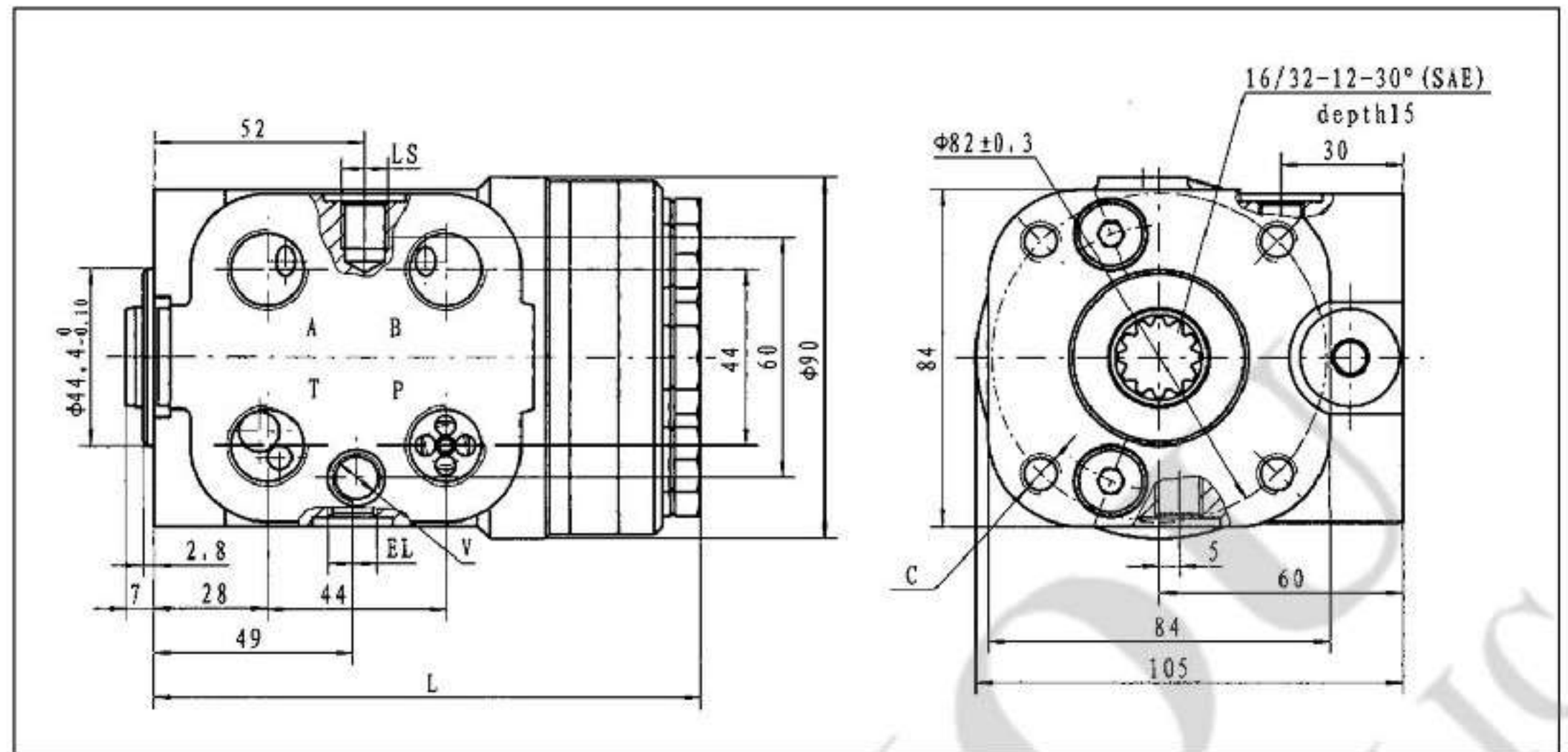


101S-5T

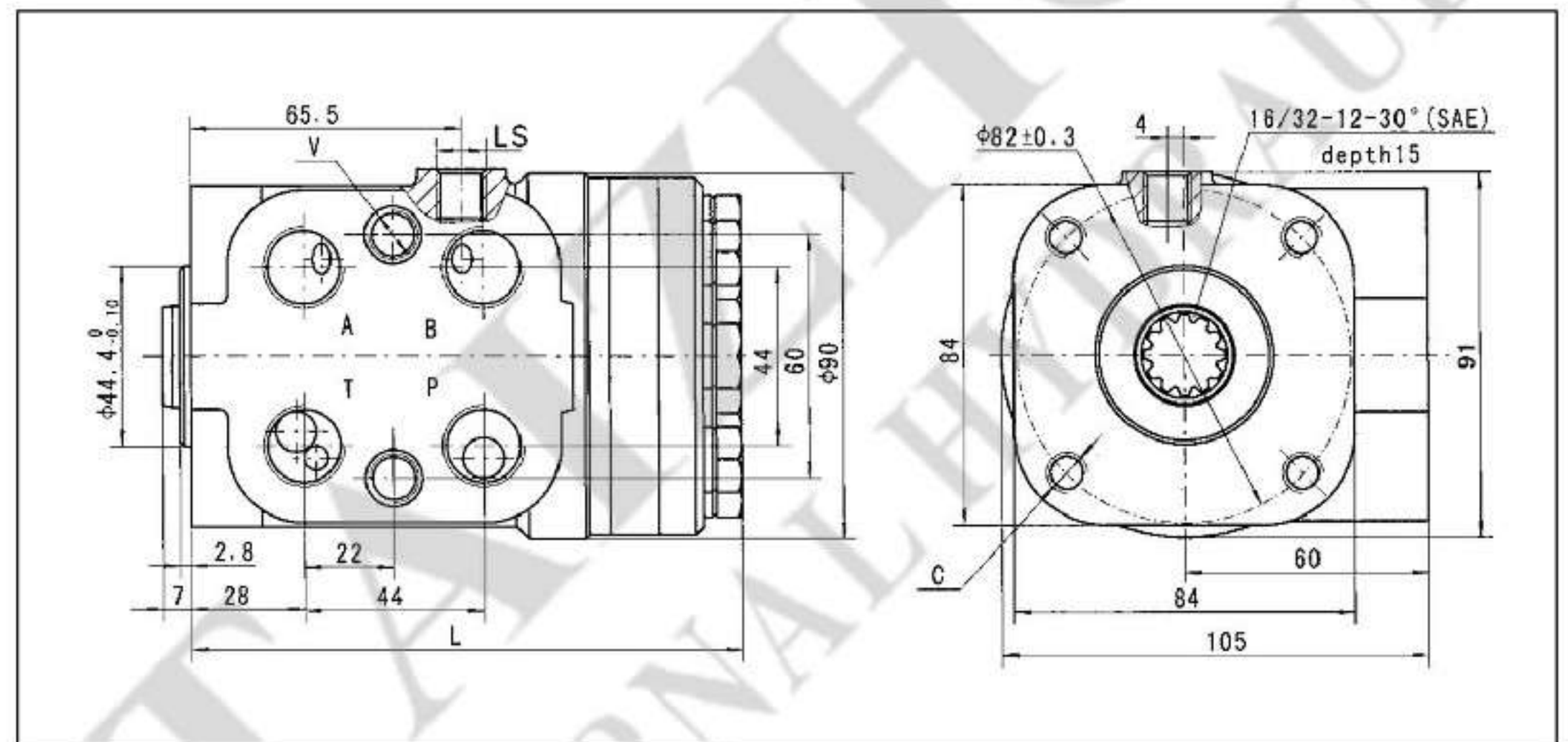


■ 连接尺寸 Mounting Data

101S-5TE



101S-5T
101S-5TX



■ 油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P,T,A,B	连接螺纹C Column Mounting C	连接螺纹V Column Mounting V	LS油口 Post LS	LL、EL油口 Ports LL, EL	
A	M20×1.5	M10	M12	M12×1.5		
B	M20×1.5 O-ring			M12×1.5 O-ring		
C	M18×1.5			M12×1.5		
D	M18×1.5 O-ring			M12×1.5 O-ring		
E	G1/2			M10×1	G1/4	M10×1
U	G1/2 O-ring				G1/4 O-ring	M10×1 O-ring
M	3/4-16UNF O-ring	3/8-16 UNC	M12	7/16-20UNF O-ring		
F						M10
I						
N		M10×1.25				
H	$\phi 18.5$	M10	M10	M12×1.5		

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm, LS、LL、EL的深度12 mm。
 Note 1: Ports P,T,A,B Depth : 14 mm; Column Mounting C & V Depth: 16 mm, LS,LL,EL Depth: 12 mm.

注2: 其他油口连接方式协议确定代号。
 Note 2: The code of other ports dimensions will be listed in an agreement.

102-1,2,3系列全液压转向器 102-1,2,3 Series Hydraulic Steering Control Unit (SCU)

102-1、2、3系列全液压转向器油口至安装法兰端面的尺寸与BZZ系列转向器相同，其连接尺寸与101系列全液压转向器有差异。

SCU 102-1,2,3 series have the same dimension as BZZ series on flange and ports, but different connection compared with 101 series.

102S-1,2,4系列全液压转向器 102S-1,2,4 Series Hydraulic Steering Control Unit (SCU)

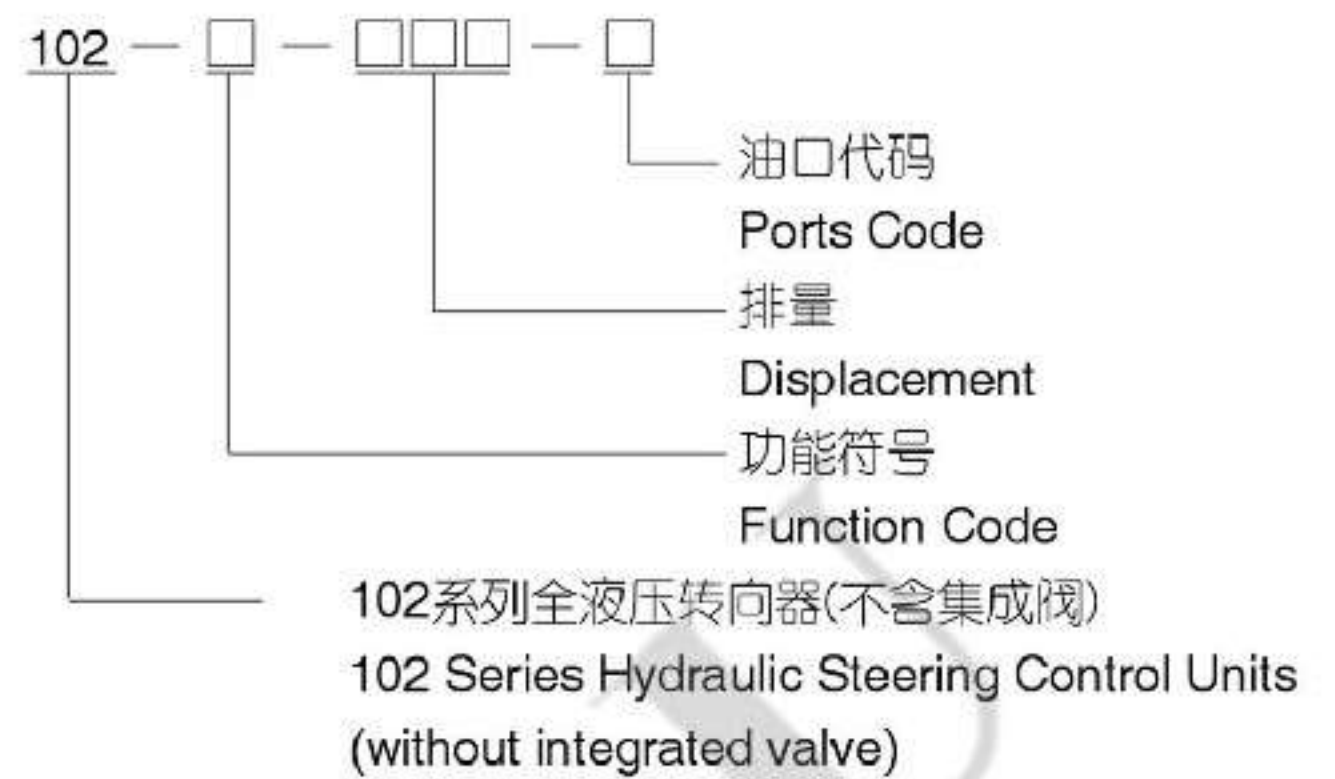
102S-1、2、4系列全液压转向器从结构到原理继承了102系列的全液压转向器的转向功能，102S系列转向器特点是在102系列的基础上将安全阀、缓冲阀、补油阀以及入口单向阀根据不同的要求设置在转向器阀体中，这种连接结构更加紧凑，使用更加方便。

102S-1、2、4系列转向器油口至安装法兰端面的尺寸与BZZ系列转向器相同，其连接尺寸与101系列全液压转向器有差异。

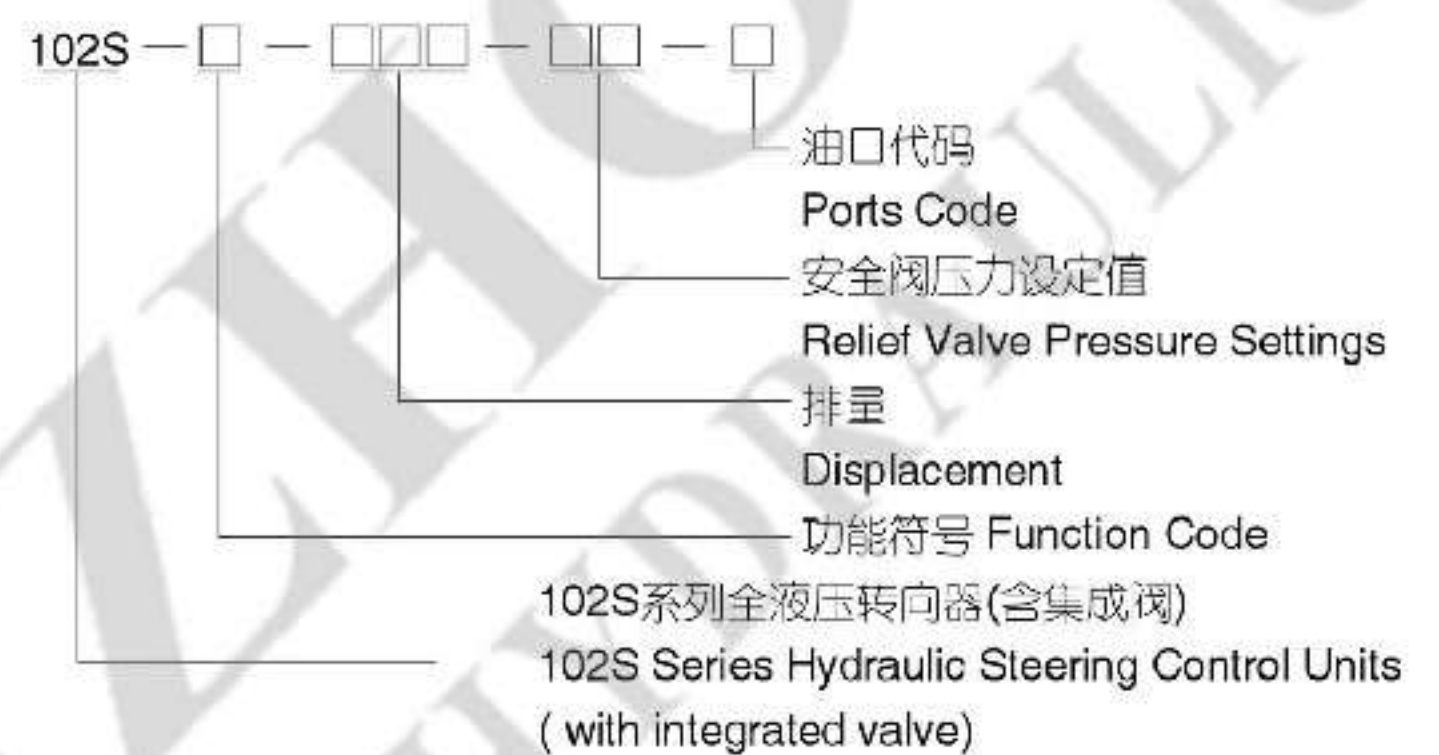
102S-1,2,4 series hydraulic steering control unit inherit the function of 102 series both in its structure and working principle. On the basis feature of 102 series SCU, 102S series SCU is to incorporate the relief valve, shock valves, suction valves and the inlet check valve inside the housing of SCU according to different requirement. This kind of structure is more compact with easier operation.

The dimension of 102S-1,2,4 series such as port and flange is as the same as BZZ series SCU, but different from 101 series SCU in connection dimensions.

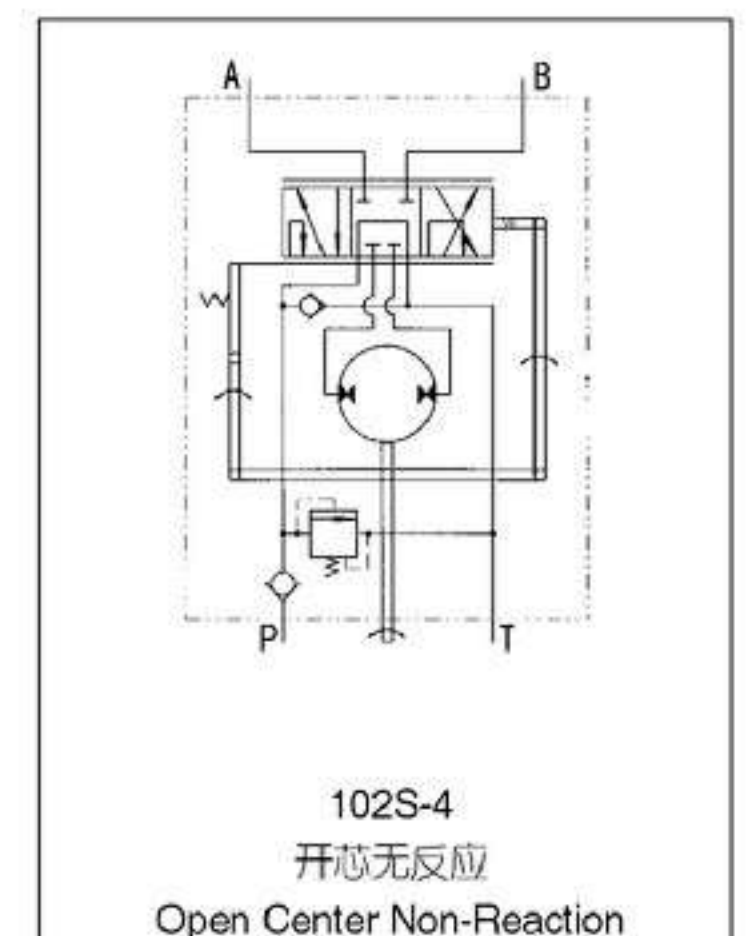
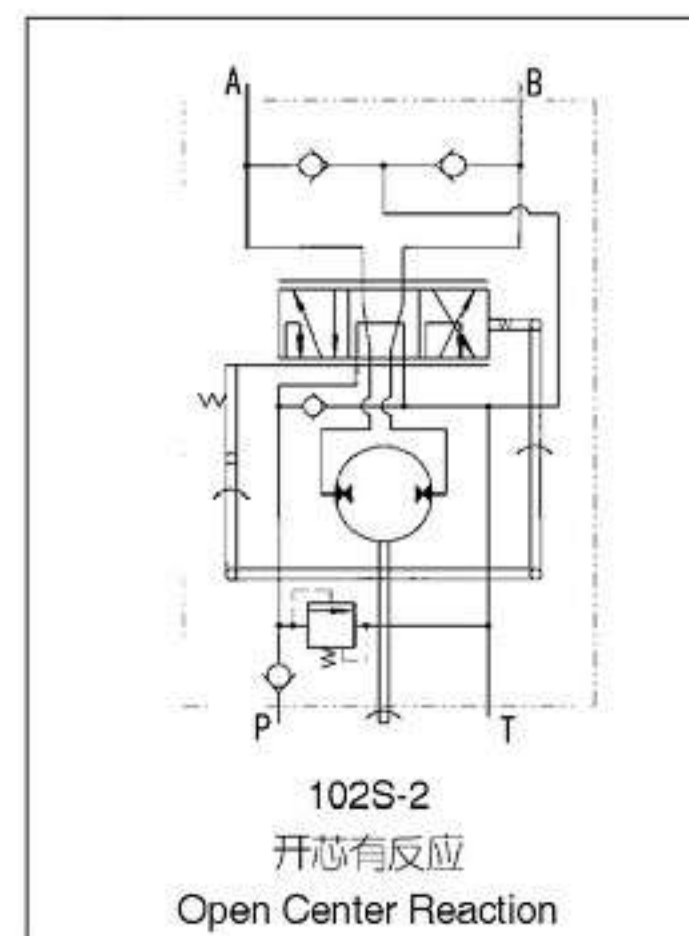
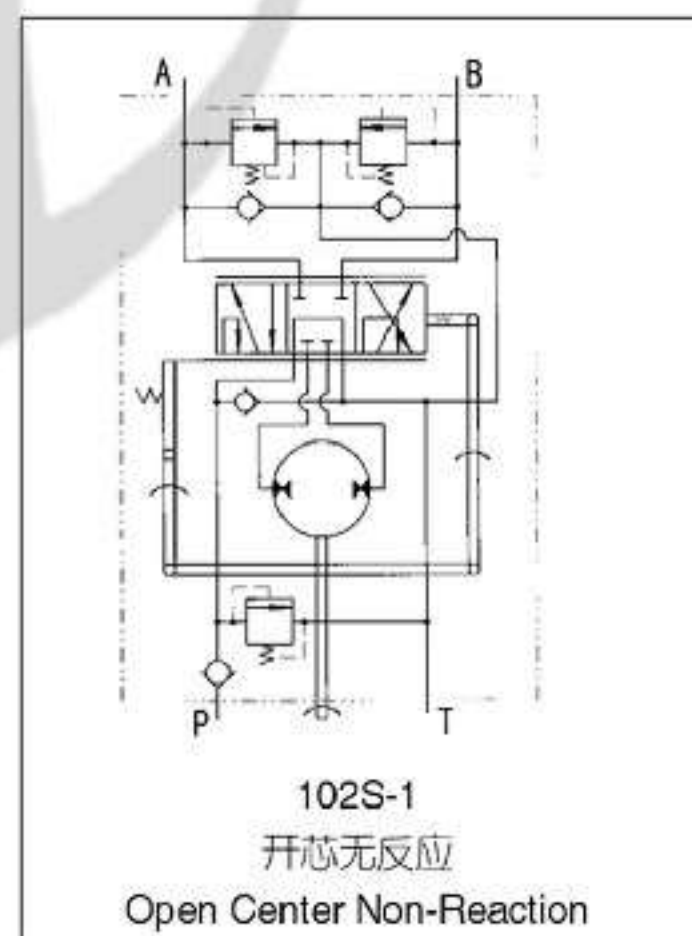
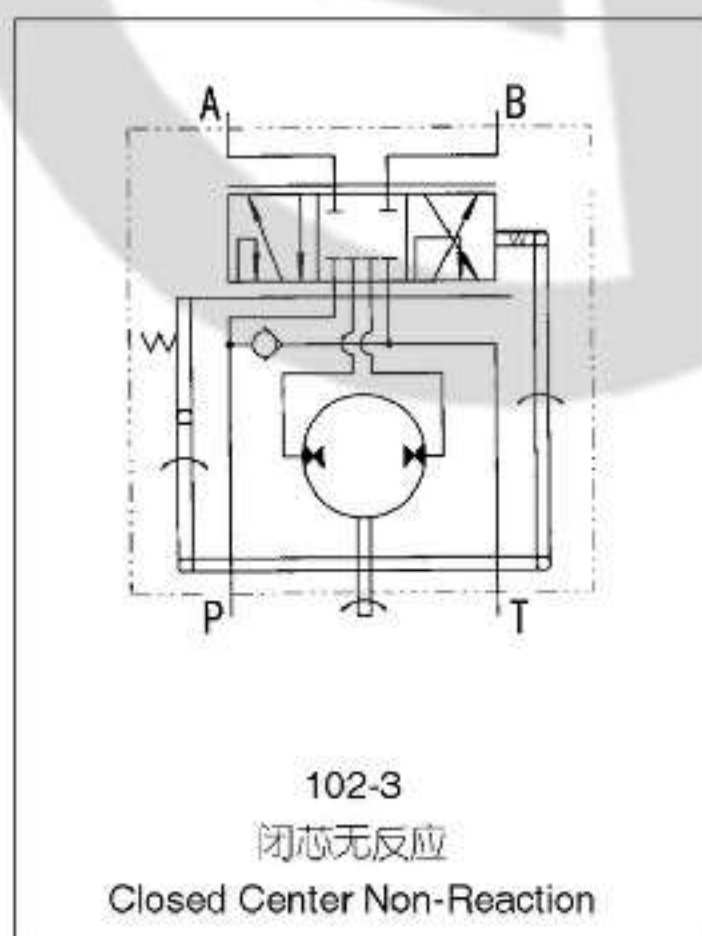
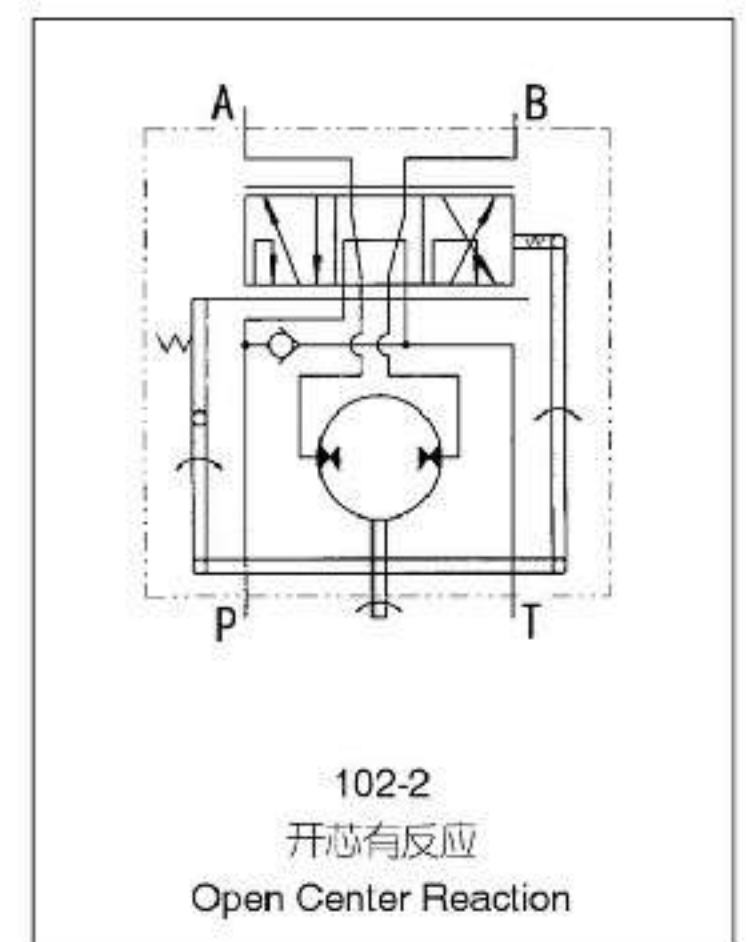
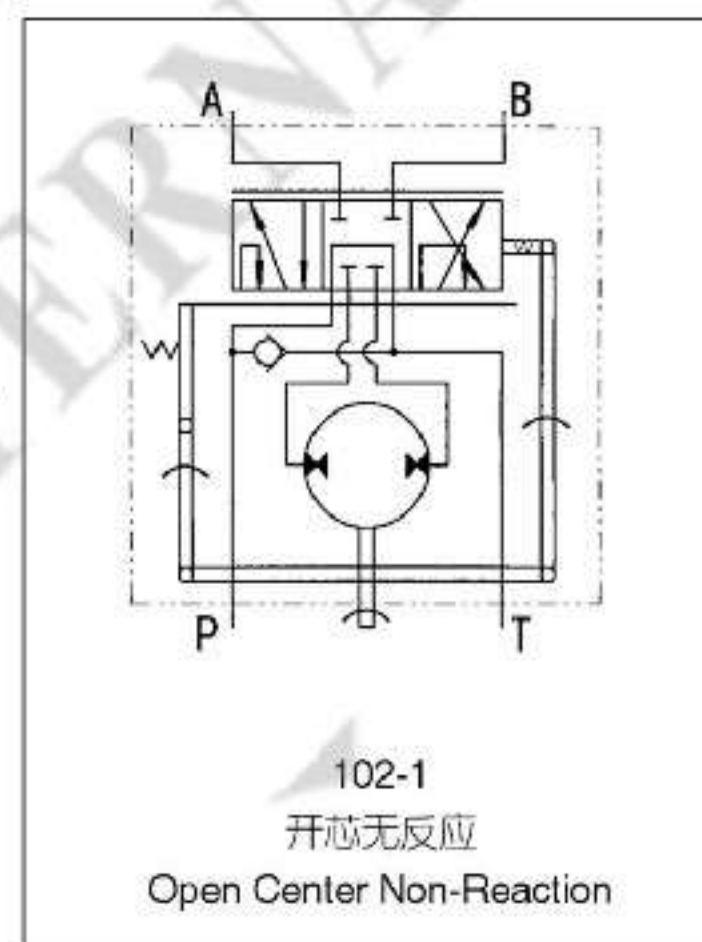
型号说明 Model Code



型号说明 Model Code



功能符号 Function Code



102(S)系列全液压转向器 102(S) Series Hydraulic Steering Control Unit

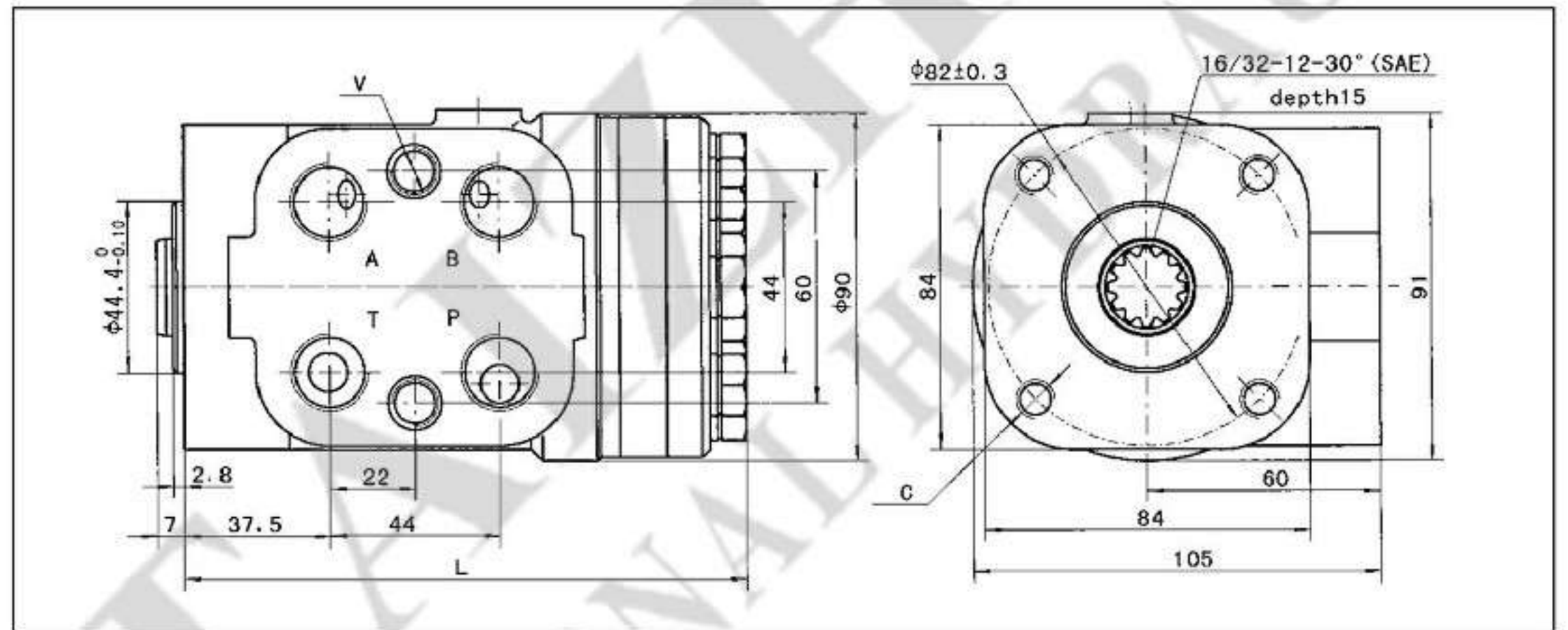


102-1,2,3系列全液压转向器 102-1,2,3 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 102-*****											
	1,2,3						1,3					
Function Code												
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Rated flow (L/min)	5	6	8	10	12.5	16	20	25	28	32	40	
Max. input pressure (MPa)	17.5											
Max. cont. back pressure (MPa)	2.5											
Weight (kg)	5.94	6.0	6.08	6.18	6.3	6.5	6.7	6.9	7.1	7.29	7.79	
Dimension L (mm)	140	142	144	146	149	154	159	165	170	175	185	

连接尺寸 Mounting Data



油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P, T, A, B	连接螺纹C Column Mounting C	连接螺纹V Valve Mounting V		
A	M20×1.5	M10	M12		
B	M20×1.5 O-ring				
C	M18×1.5				
D	M18×1.5 O-ring				
E	G1/2		M10×1		
U	G1/2 O-ring				
G	M22×1.5		M12		
Q	M22×1.5 O-ring				
M	3/4-16UNF O-ring			3/8-16 UNC	3/8-24 UNF
F				M10	M10
I		M10×1.25			
N					

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。

Note 1: Ports P, T, A, B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.

注2: 其他油口连接方式协议确定代号。

Note 2: The code of other ports dimensions will be listed in an agreement.

102(S)系列全液压转向器 102(S) Series Hydraulic Steering Control Unit

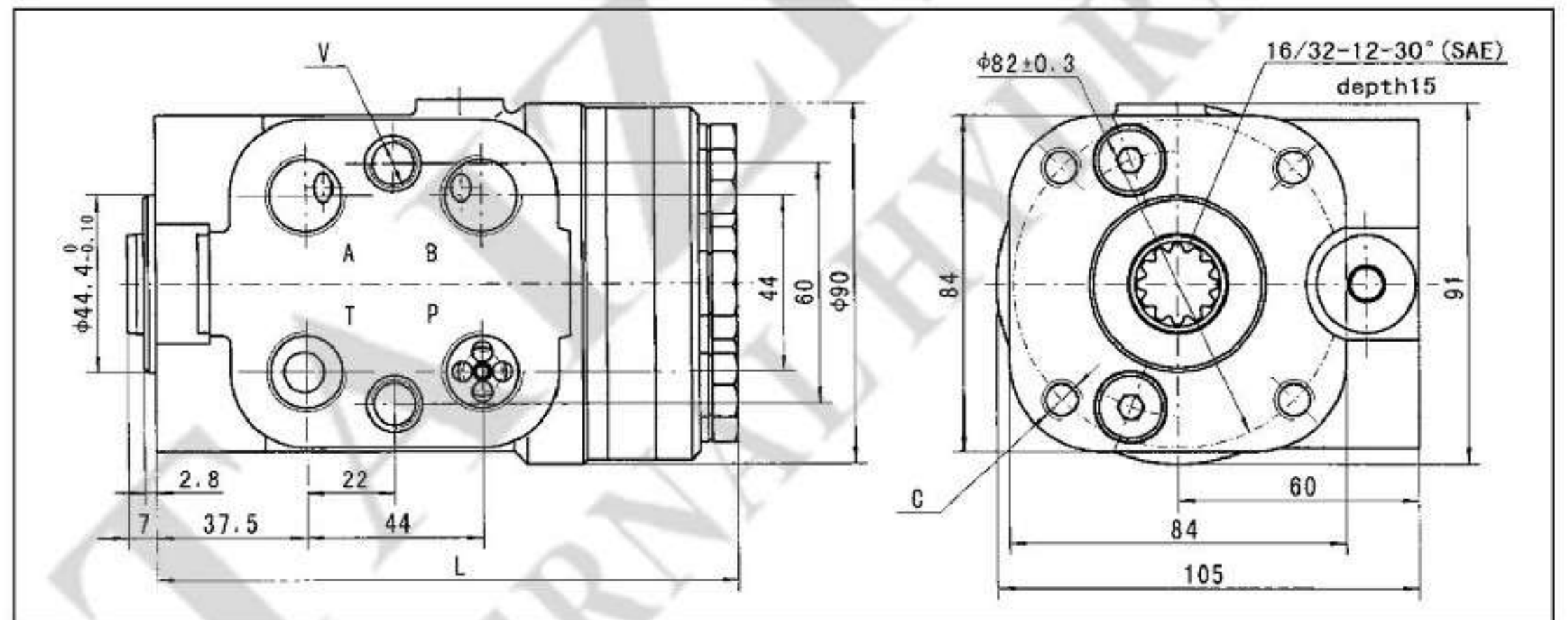


102-1,2,4系列全液压转向器 102-1,2,4 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 102S-*****											
	1,2,4						1,4					
Function Code												
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Rated flow (L/min)	5	6	8	10	12.5	16	20	25	28	31.5	40	
Max. input pressure (MPa)	16											
Relief Valve Pressure Settings (MPa)	06,07,08,10,12,14,15,16,17.5											
Shock Valves Pressure Settings (MPa)	12,13,14,16,18,20,21,22,23.5											
Max. cont. back pressure (MPa)	2.5											
Weight (kg)	6.04	6.09	6.18	6.27	6.4	6.6	6.79	7.02	7.2	7.39	7.89	
Dimension L (mm)	140	142	144	146	149	154	159	165	170	175	185	

连接尺寸 Mounting Data



油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P,T,A,B	连接螺纹C Column Mounting C	连接螺纹V Valve Mounting V	
A	M20×1.5	M10	M12	
B	M20×1.5 O-ring			
C	M18×1.5		M10×1	
D	M18×1.5 O-ring			
E	G1/2		M12	
U	G1/2 O-ring			
M	3/4-16UNF O-ring		3/8-16 UNC	3/8-24 UNF
F			M10	M10
I		M10×1.25		
N				

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。

Note 1: Ports P,T,A,B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.

注2: 其他油口连接方式协议确定代号。

Note 2: The code of other ports dimensions will be listed in an agreement.

102(S)-5(T)(TE)(L)(E)系列全液压转向器 102(S)-5(T)(TE)(L)(E) Series Hydraulic Steering Control Unit (SCU)

102S-5 (T) (TE) (L) (E)系列全液压转向器用于负荷传感型转向系统。

102S-5、102S-5L、102S-5E系列全液压转向器均为板式连接方式，与PVF*型优先阀采用板式连接后使用。

102S-5L系列全液压转向器在LL接口处引出了LS口的压力信号，将信号传送给电气控制系统；

102S-5E系列全液压转向器在EL接口处引出了A或B油口的压力信号，将信号传送给电气控制系统。

102S-5T、102S-5TE系列全液压转向器为管式连接方式，与PVL*或DYXL、YXL型优先阀采用管式连接后使用。

102S-5TE系列全液压转向器在EL接口处引出了A或B油口的压力信号，将信号传送给电气控制系统。

102-5T系列全液压转向器为管式连接方式，必须和DYXL、YXL型优先阀采用管式连接后使用，并且其系统安全阀设在优先阀上。

SCU 102(S)-5(T)(TE)(L)(E) series is used in the load sensing steering system .

SCU 102S-5,102S-5L,102S-5E series adopt modulary mounting type and can only be used with PVF* type priority valve via modulary mounting .

SCU 102S-5L series guides the pressure signal of port LS out of prot LL, and transfers the pressure signal to the electrical control system .

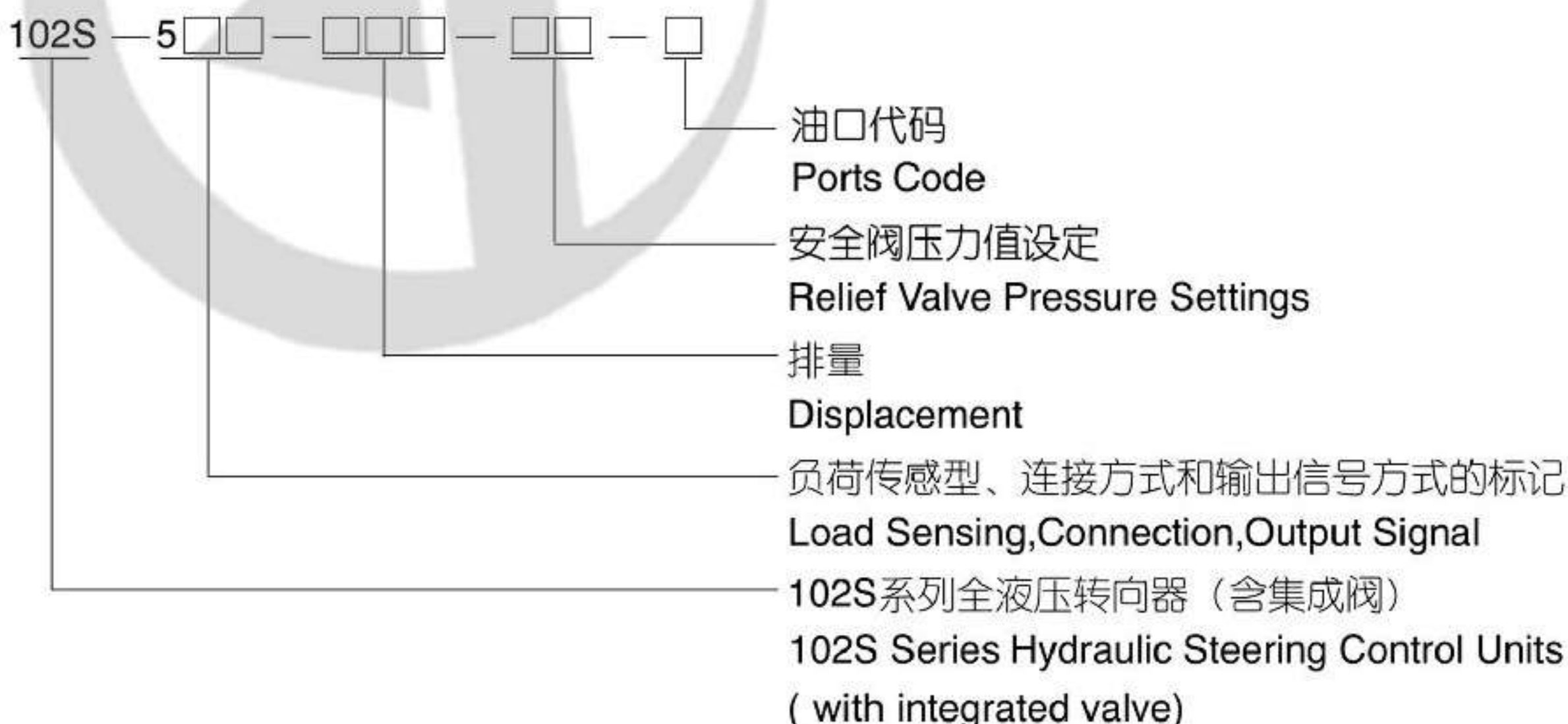
SCU 102S-5E series guides the pressure signal of port A or B out of port EL, and then supplies the pressure signal to the electrical control system .

SCU 102S-5T,102S-5TE series adopts the Pipe mounting and via pipe mounting can be used with PVL* or DYXL, YXL type priority valve .

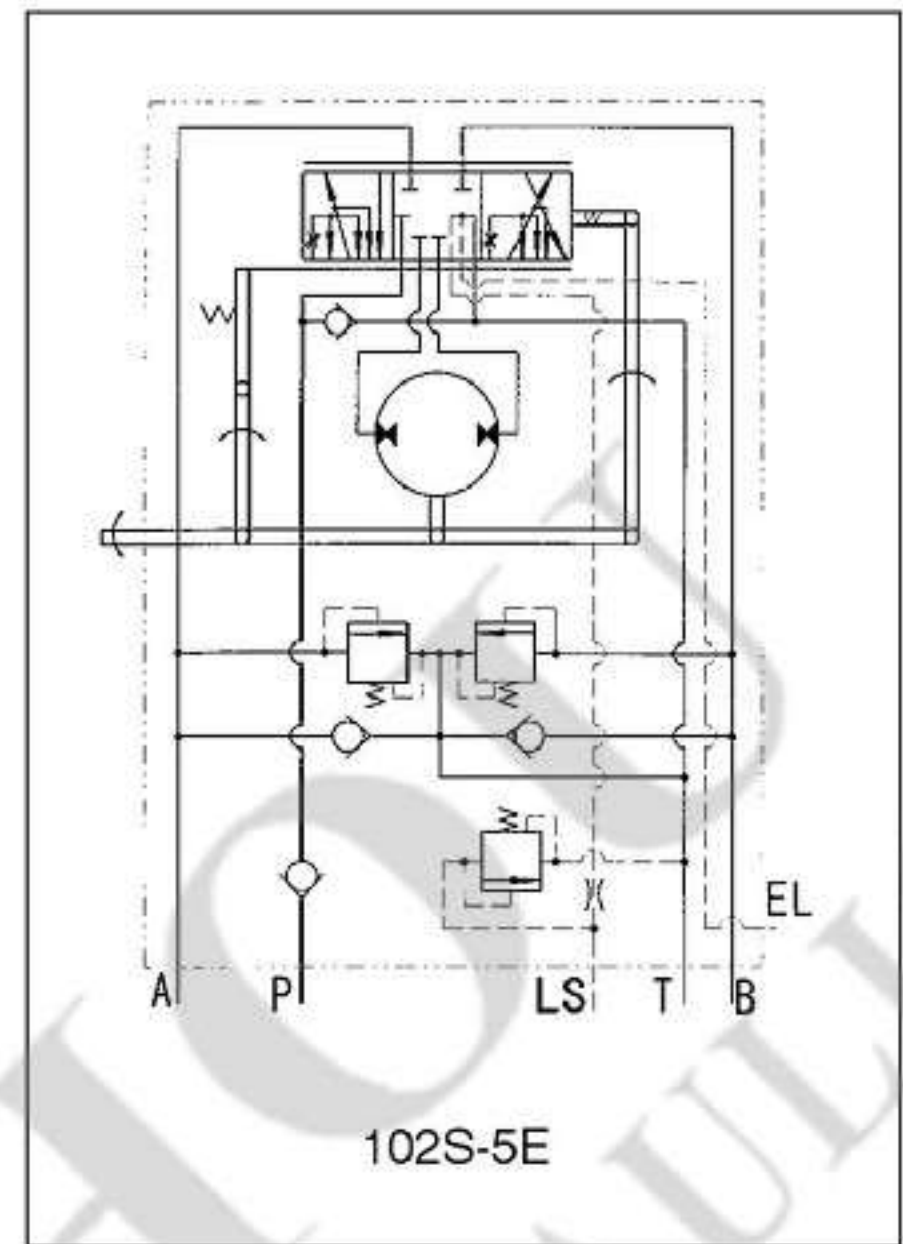
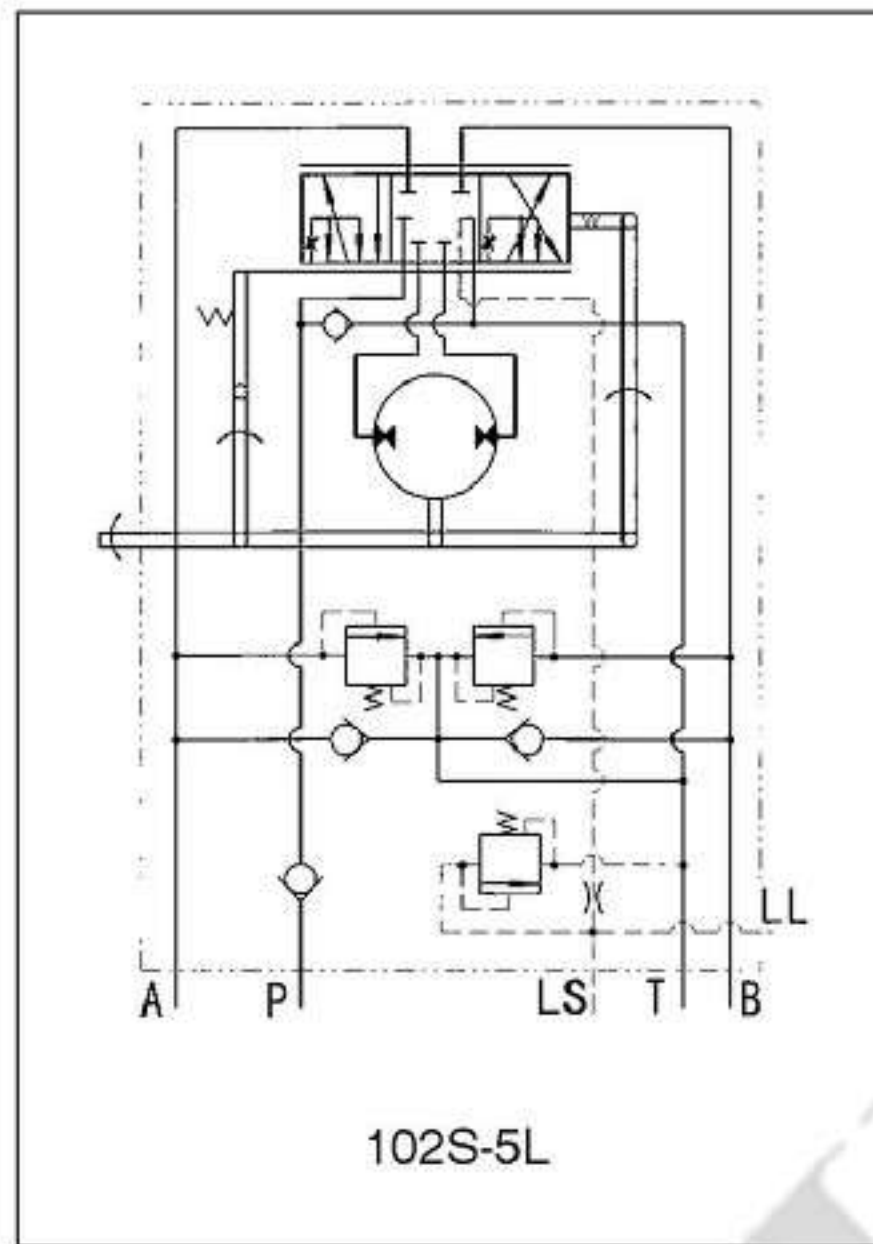
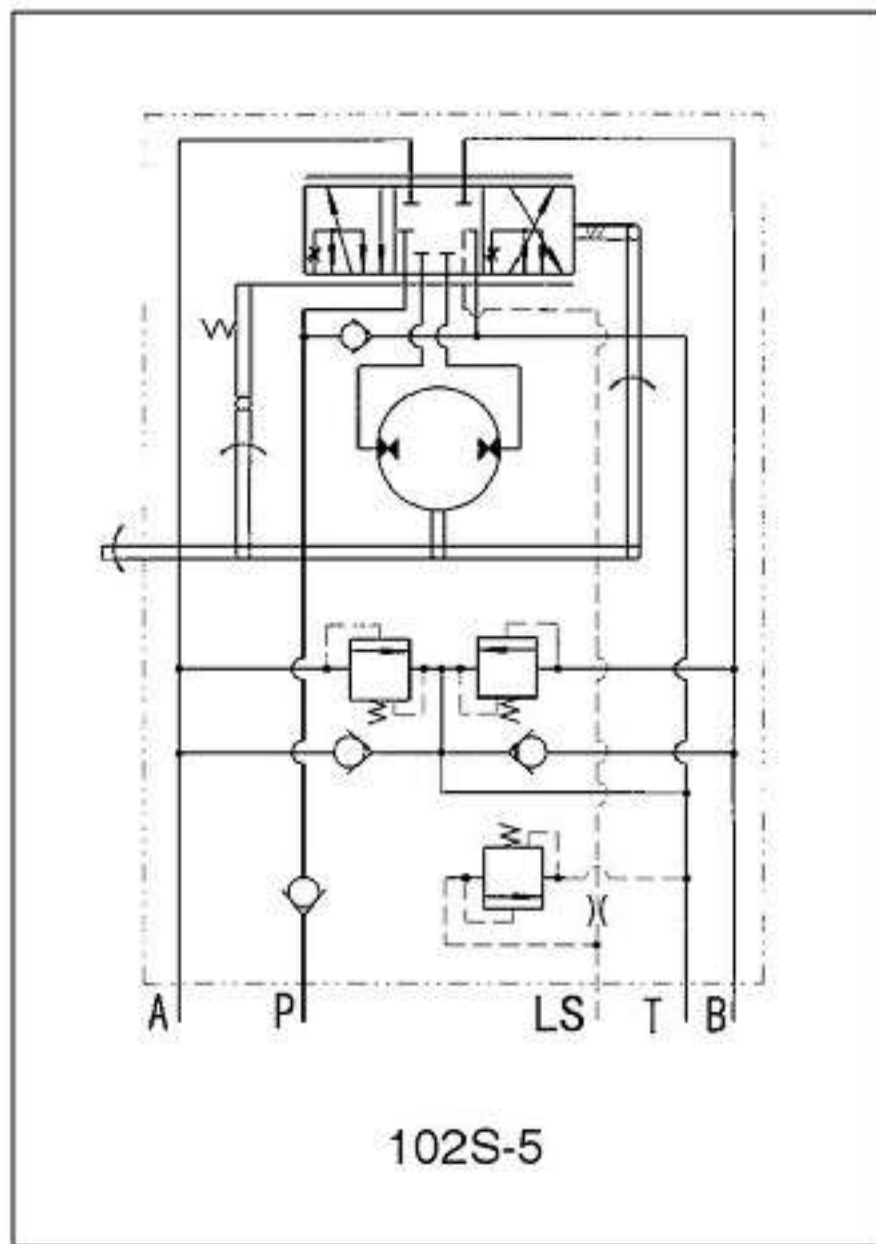
SCU 102S-5TE series guides the pressure signal of the port A or B out of port EL and then supplies the pressure signal to the electrical control system .

SCU 102-5T series adopts the pipe mounting, it can be used only after the pipe mounted with the DYXL, YXL type priority valve. and the relief valve is integrated in the priority valve .

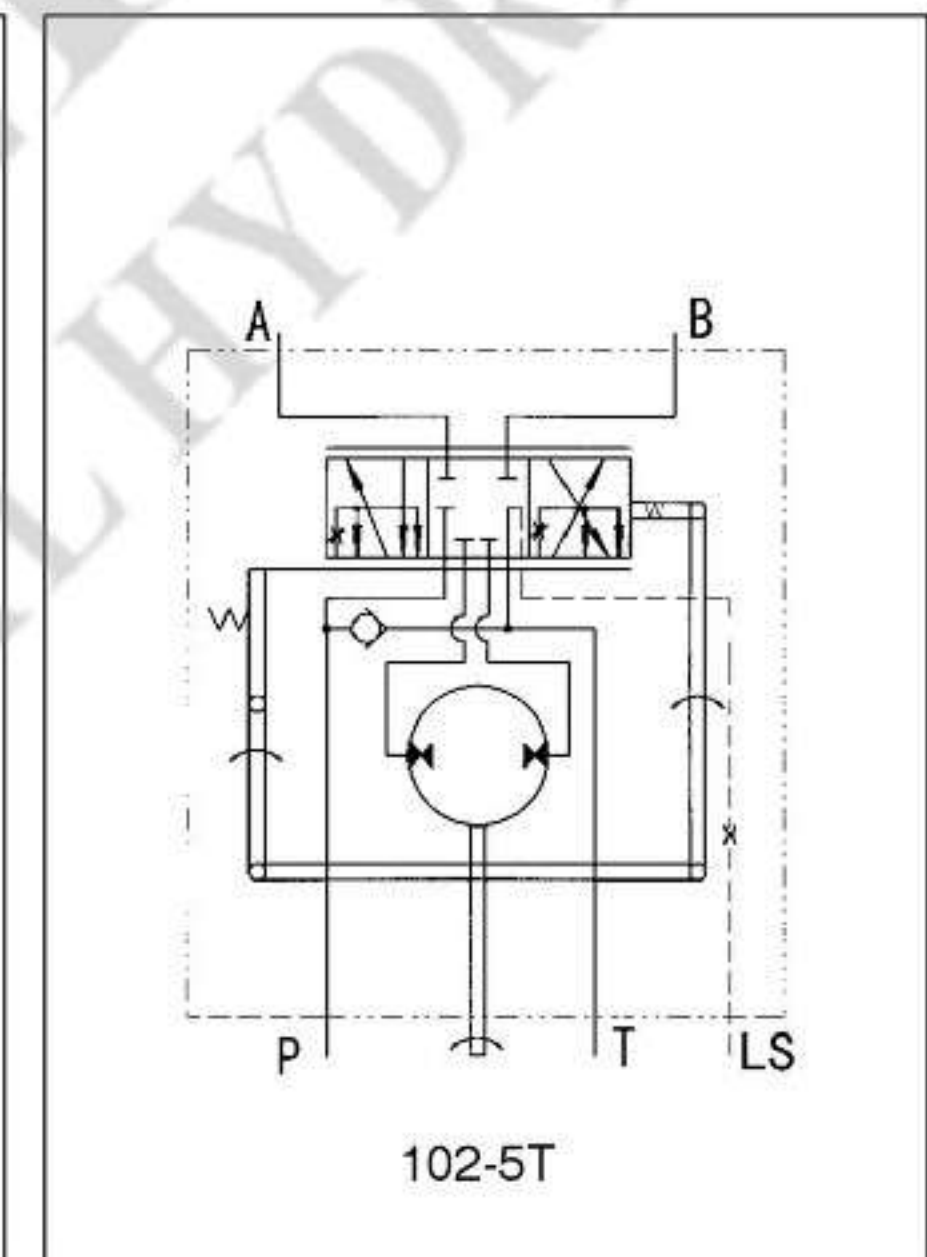
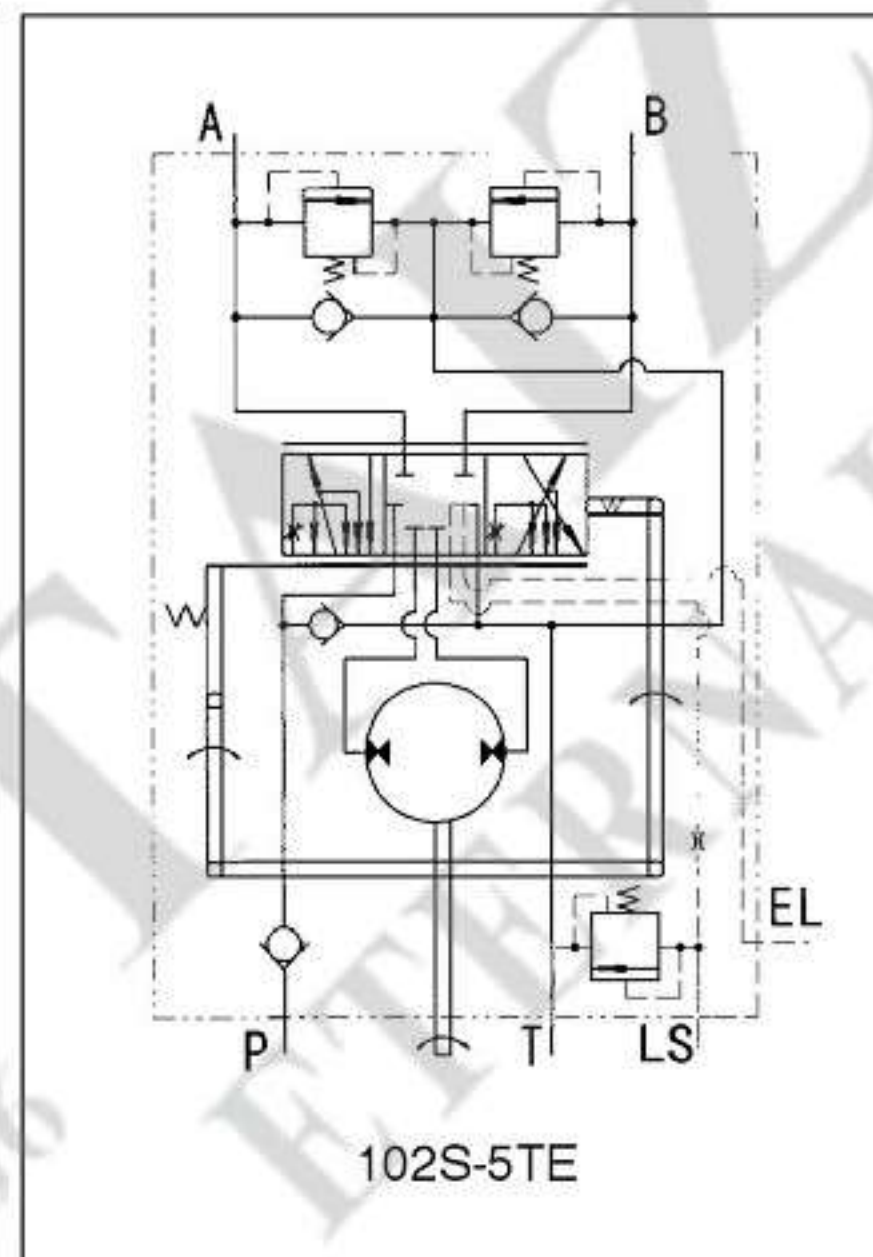
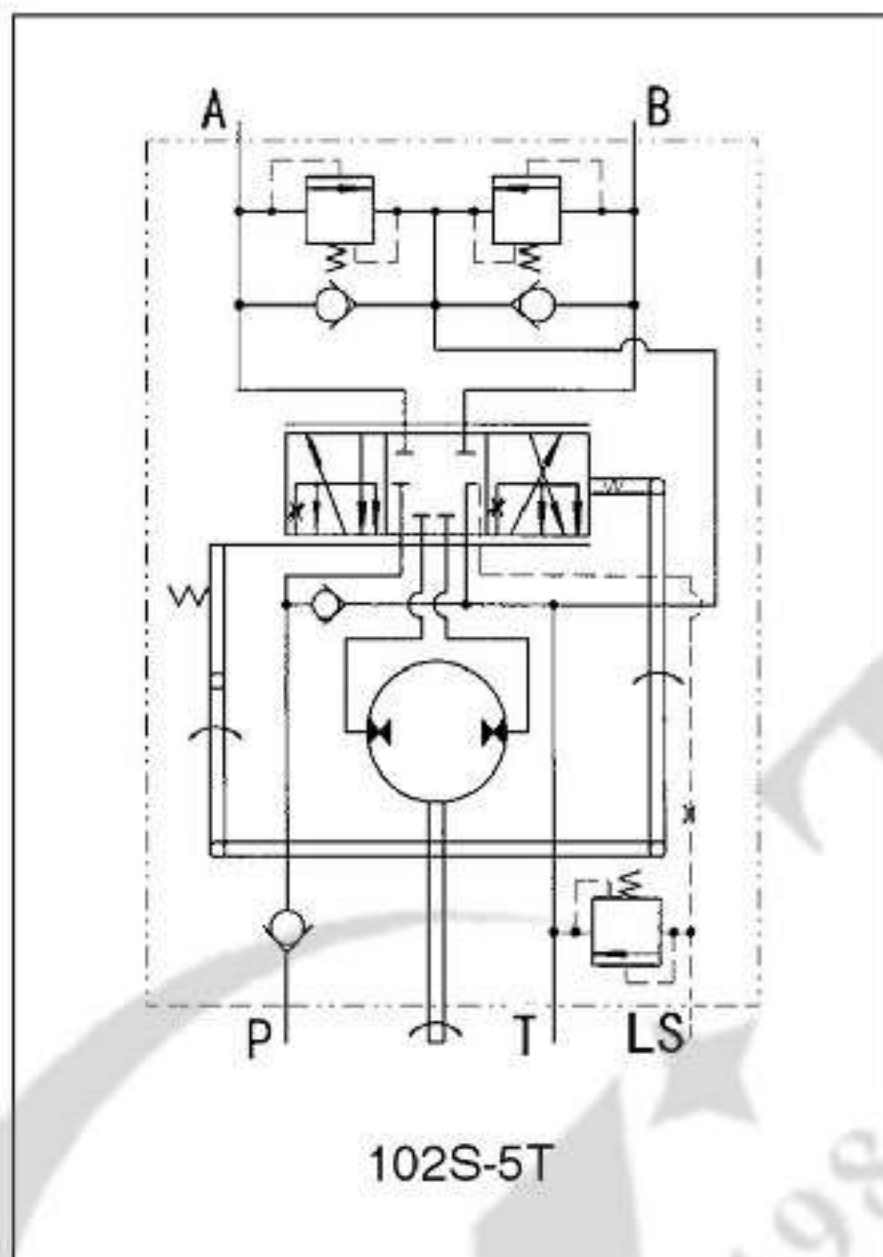
型号说明 Order Code



■ 功能符号 Function Code



板式连接 Modularity mounting



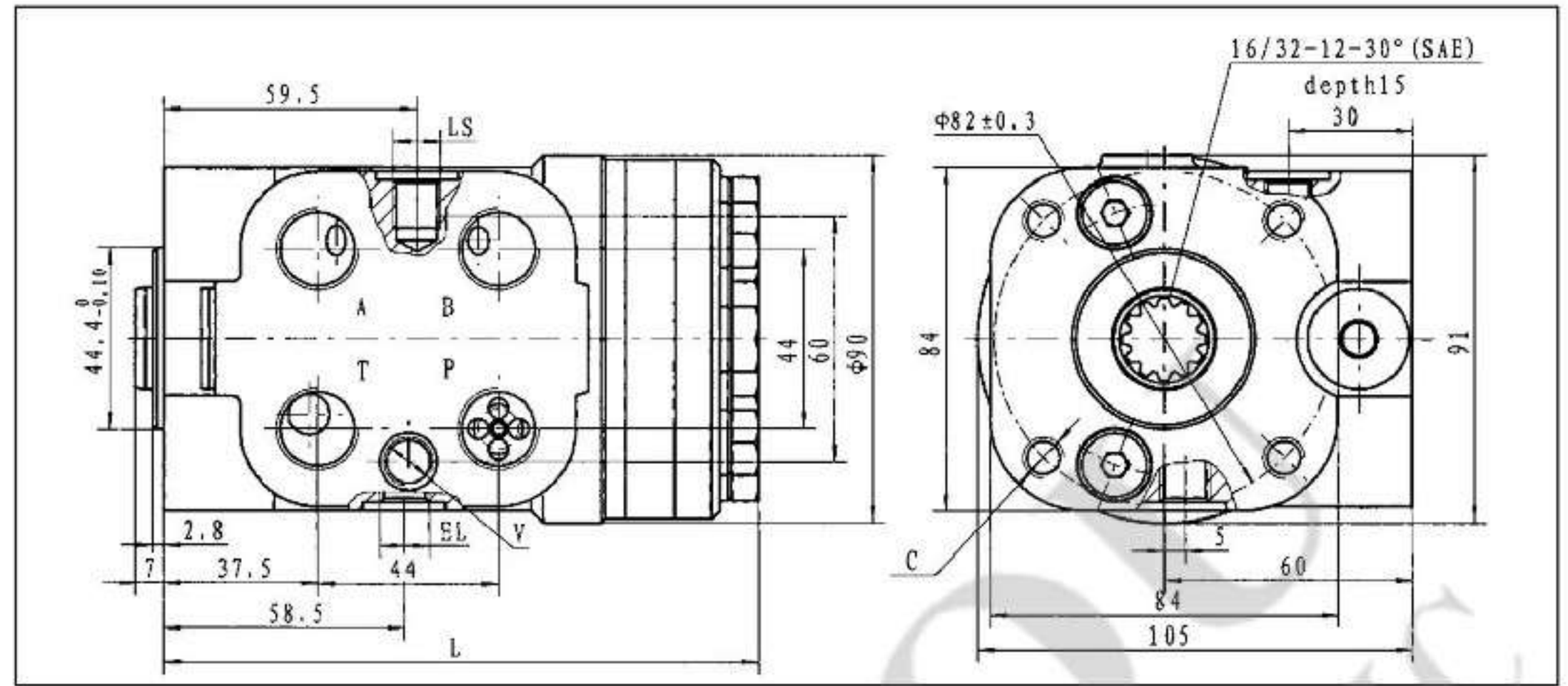
管式连接 Pipe Mounting

■ 主要技术参数 Main Specification

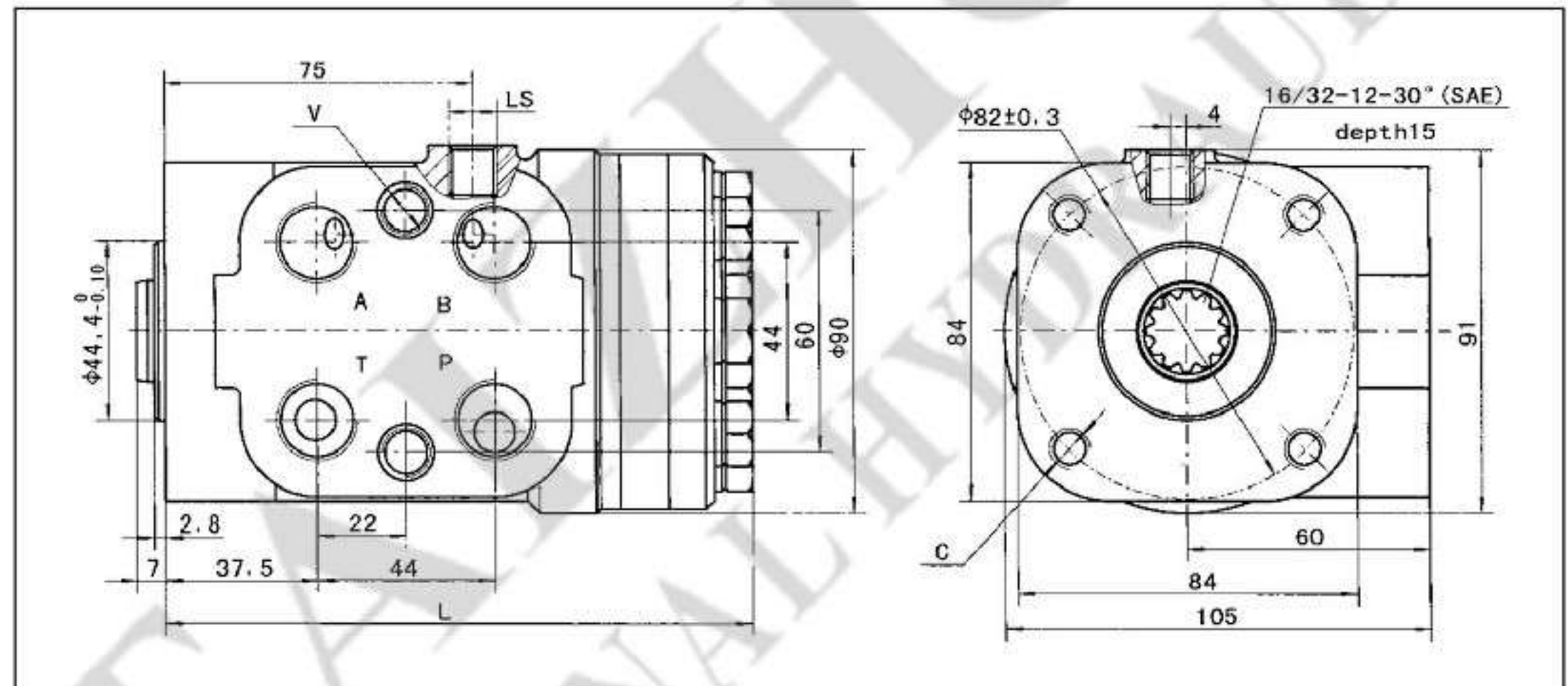
Parameters	Type 102-5T-*****, 102S-5(T)(TE)(L)(E)-****-****											
	50	63	80	100	125	160	200	250	280	315	400	
Displacement(mL/r)	50	63	80	100	125	160	200	250	280	315	400	
Max. input speed (rpm)	100									75		
Max. input pressure (MPa)	17.5											
Relief Valve Pressure Settings (MPa)	06,07,08,10,12,14,15,16,17.5											
Shock Valves Pressure Settings (MPa)	12,13,14,16,18,20,21,22,23.5											
Max. Cont. Back pressure (MPa)	2.5											
Weight (kg)	6.04	6.09	6.18	6.27	6.4	6.6	6.79	7.02	7.2	7.39	7.89	
Dimension L (mm)	140	142	144	146	149	154	159	165	170	175	185	

■ 连接尺寸 Mounting Data

102S-5TE



102-5T



■ 油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P,T,A,B	连接螺纹C Column Mounting C	连接螺纹V Column Mounting V	LS油口 Port LS	LL、EL油口 Ports LL, EL
A	M20×1.5	M10	M12	M12×1.5	
B	M20×1.5 O-ring			M12×1.5 O-ring	
C	M18×1.5			M12×1.5	
D	M18×1.5 O-ring			M12×1.5 O-ring	
E	G1/2	M10×1	M10×1	G1/4	M10×1
U	G1/2 O-ring			G1/4 O-ring	M10×1 O-ring
M	3/4-16UNF O-ring	M10	M12	7/16-20UNF O-ring	
F					
I		M10	M10		
N		M10×1.25	M10		
H	φ18.5	M10	M10	M12×1.5	

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm, LS、LL、EL的深度12 mm。
Note 1: Ports P,T,A,B Depth : 14 mm; Column Mounting C & V Depth: 16 mm;LS,LL,EL Depth: 12 mm.
注2: 其他油口连接方式协议确定代号。
Note 2: The code of other ports dimensions will be listed in an agreement.

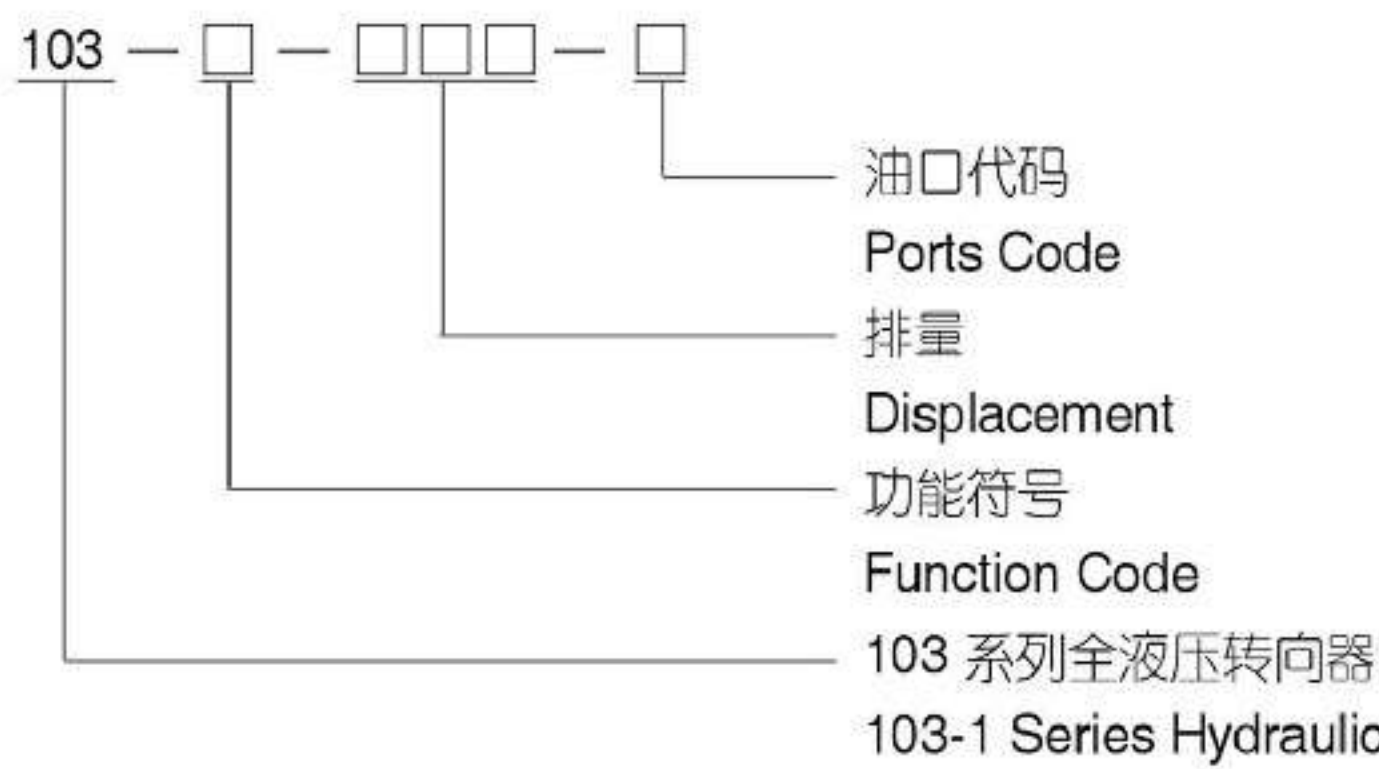
103-1系列全液压转向器

103-1 Series Hydraulic Steering Control Unit (SCU)

103-1系列全液压转向器结构更加紧凑，连接尺寸符合国际标准，和101、102系列产品有差异，结构小巧紧凑，适合于狭空间装配，广泛应用于低速车辆的转向控制系统，如叉车、拖拉机、联合收割机，工程或道路建设设备、船舶舵机等，能够通过输入较小的力完成较大输出转向力的场合，操纵上轻便、灵活、可靠。

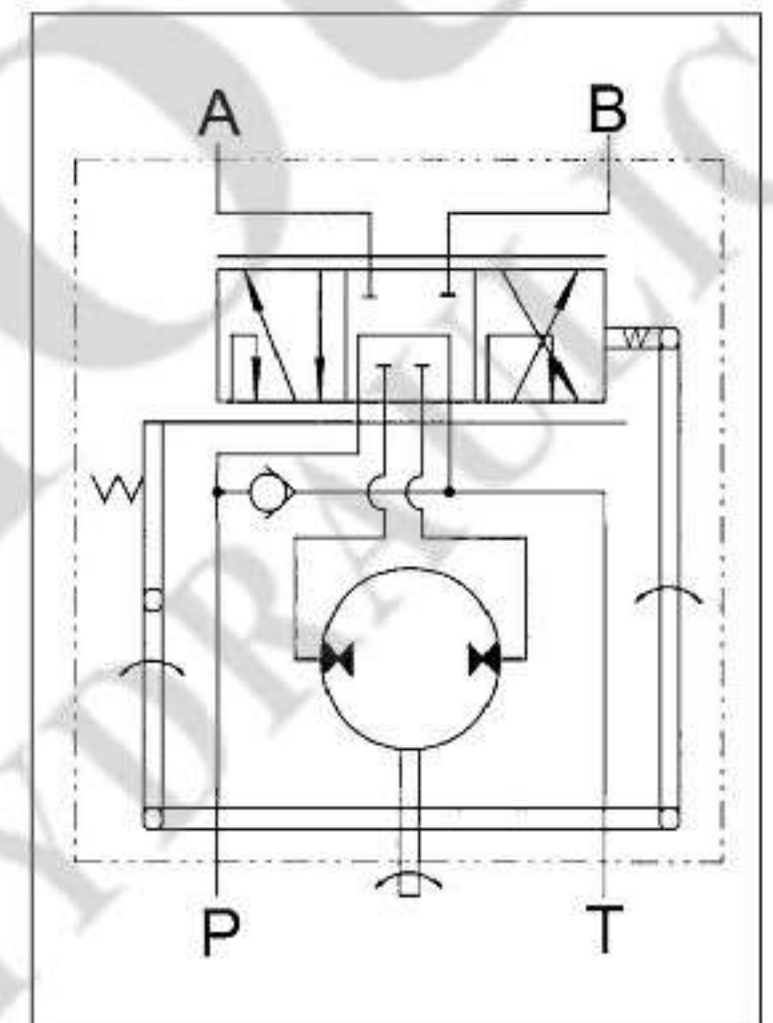
The structure of 103-1 series Hydraulic SCU is more compact and its connection dimension conforms to the international standard, while it is different from 101 and 102 series which are suitable for assembly in the narrow space. It's widely used in the low-speed vehicles, steering control system, such as forklift, tractor, combined harvester, engineering or road construction machinery, and the marine rudder, etc. It can obtain more powerful output steering force through the input force and it operates easily, flexibly and reliably.

型号说明 Order Code



功能符号 Function Code

103-1
开芯无反应
Open Center Non-Reaction



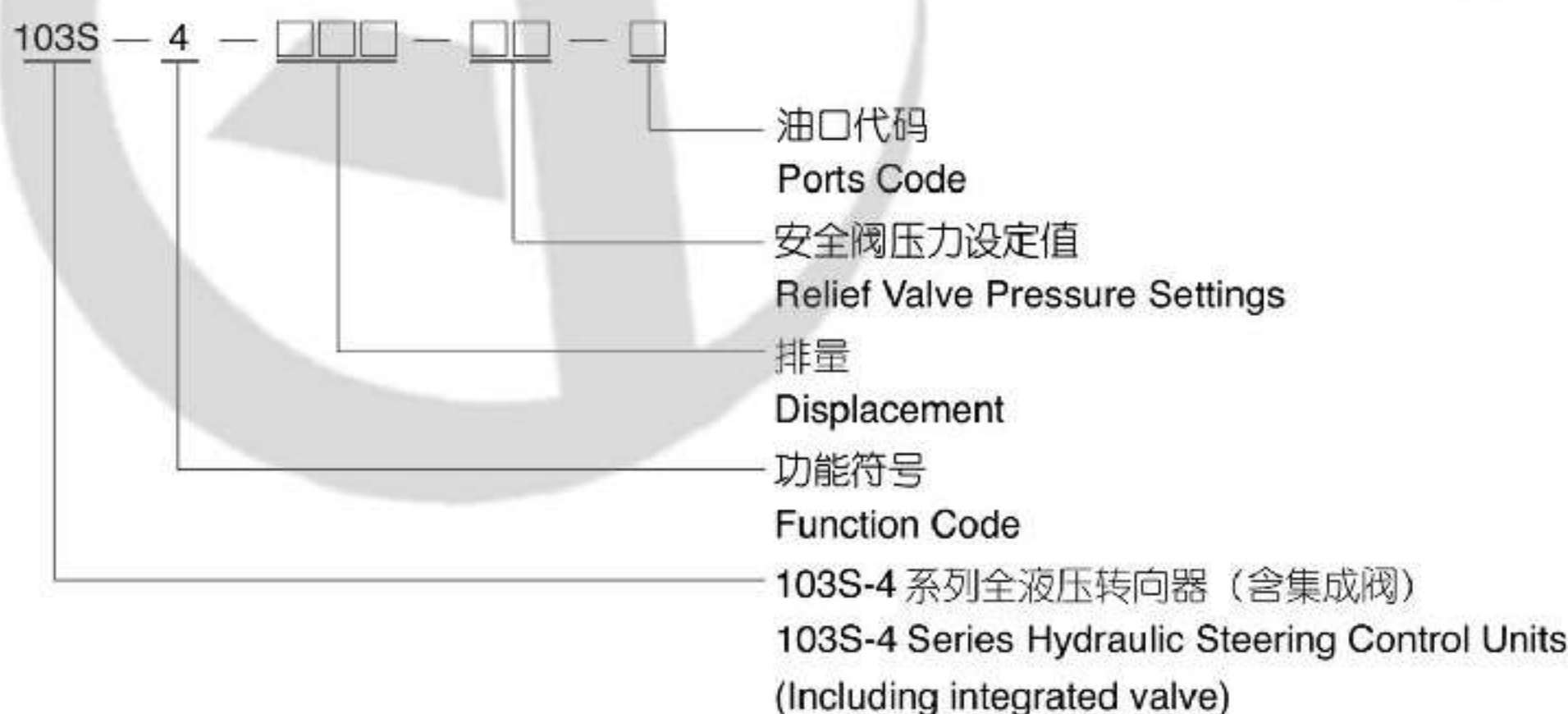
103S-4系列全液压转向器

103S-4 Series Hydraulic Steering Control Unit (SCU)

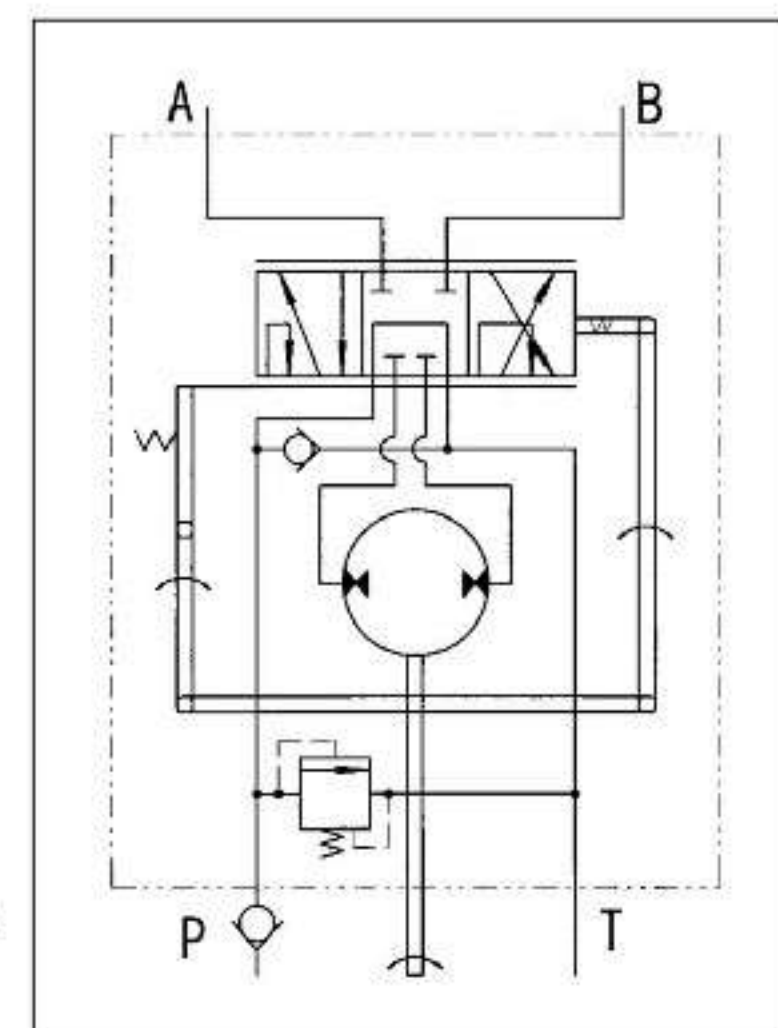
103S-4系列转向器除具备103-1系列转向器的功能外，还含有安全阀和入口单向阀的功能。

103S-4 series steering unit contains, in addition to the function of 103-1 series steering unit, also function of relief valve and inlet check valve.

型号说明 Order Code



功能符号 Function Code



103S-4
开芯无反应
Open Center Non-Reaction

103(S)系列全液压转向器 103(S) Series Hydraulic Steering Control Unit

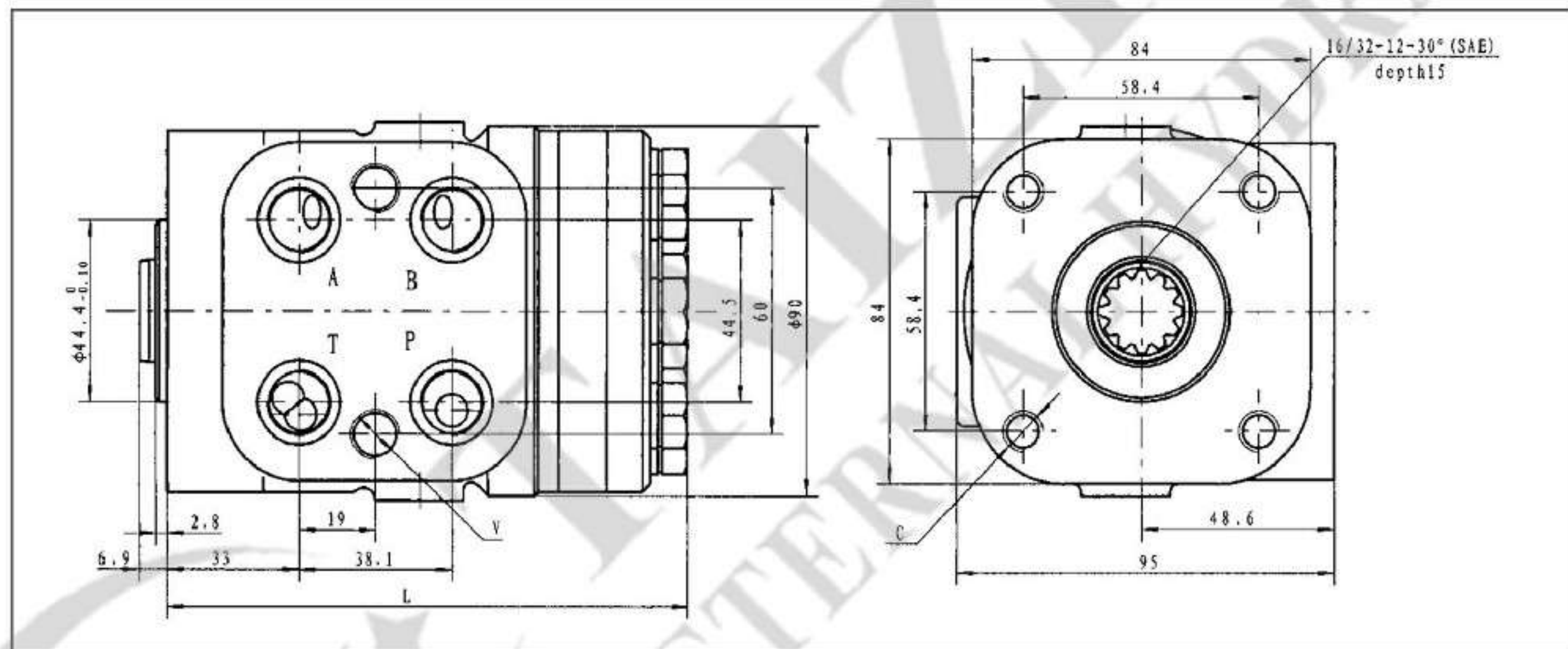


103-1系列全液压转向器 103-1 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 103-1-*****							
Function Code	1	1	1	1	1	1	1	1
Displacement(mL/r)	50	63	80	100	125	160	200	250
Rated Flow (L/min)	5	6	8	10	12.5	16	20	25
Max.Input Pressure (MPa)	17.5							
Max.Cont.Back Pressure	2.5							
Weight (kg)	3.85	4.0	4.05	4.10	4.25	4.4	4.6	4.8
Dimension L (mm)	123	125	127	130	133	138	143	149

连接尺寸 Mounting Data



油口螺纹 Port Thread

代码Code	P、T、A、B 油口 Ports P, T, A, B	连接螺纹C Column Mounting	连接螺纹V Valve Mounting
A	G3/8-19 O-ring	M10×1.25	M10
B	9/16-18UNF O-ring		
C	M18×1.5	M10	M12
D	M18×1.5 O-ring		
M	3/4-16UNF O-ring	3/8-16UNC	3/8-24UNF
F		M10	M10
I		M10×1.25	
N		M10×1.25	

注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。
 Note 1: Ports P, T, A, B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.
 注2: 其他油口连接方式协议确定代号。
 Note 2: The code of other ports dimensions will be listed in an agreement.

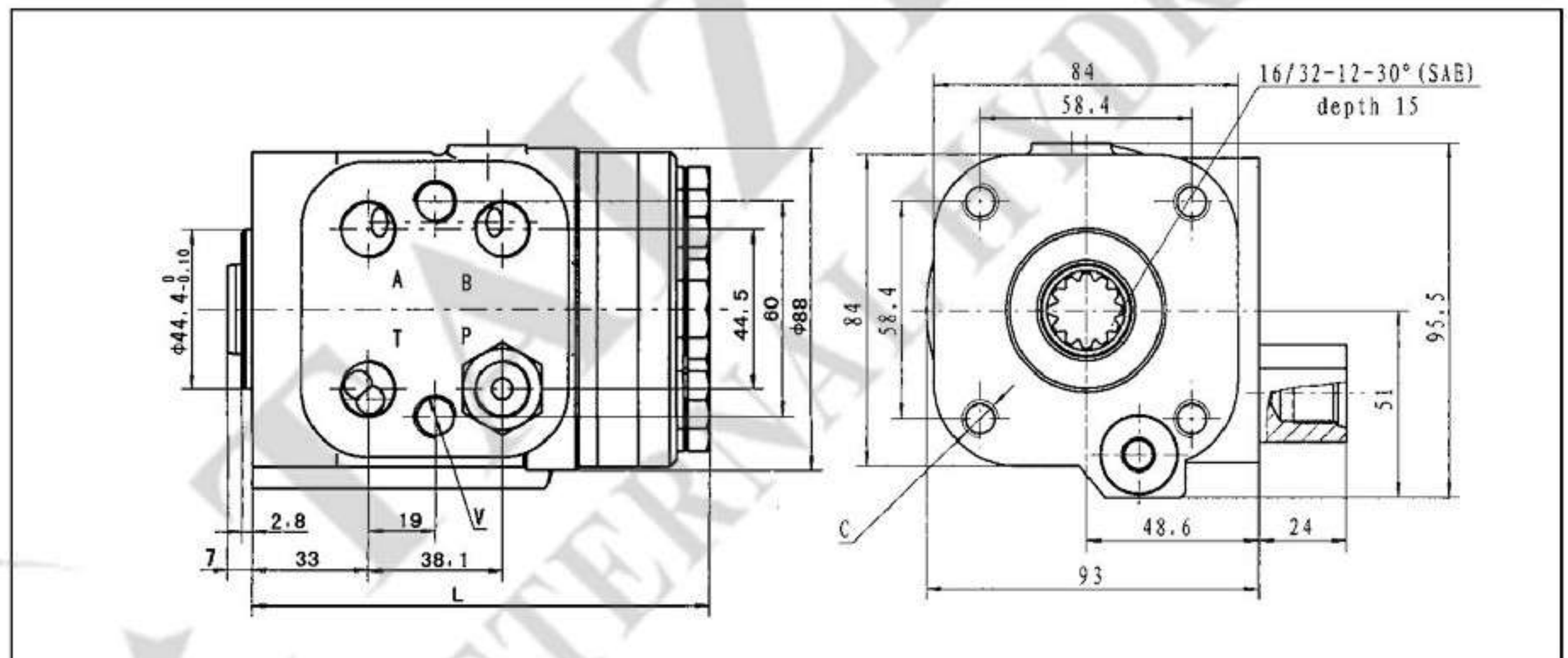
■ 103S-4系列全液压转向器
103S-4 Series Hydraulic Steering Control Unit (SCU)

■ 主要技术参数 Main Specification

Parameters	Type 103S-4-****-***							
	50	63	80	100	125	160	200	250
Displacement(mL/r)	50	63	80	100	125	160	200	250
Rated flow (L/min)	5	6	8	10	12.5	16	20	25
Max. input pressure (MPa)	17.5							
Relief valve pressure settings (Mpa)	06,07,08,10,12,14,15,16,17.5							
Max. cont. back pressure (MPa)	2.5							
Weight (kg)	4.75	4.81	4.89	4.96	5.1	5.3	5.5	5.73
Dimension L (mm)	123	125	127	130	133	138	143	149

■ 连接尺寸 Mounting Data

103S-4



■ 油口螺纹 Port Thread

代码 Code	P、T、A、B油口 Ports P,T,A,B	连接螺纹 C Column Mounting C	连接螺纹 V Column Mounting V
A	G3/8-19 O-ring	M10×1.25	M10
B	9/16-18UNF O-ring		
C	M18×1.5	M10	M12
D	M18×1.5 O-ring		
M	3/4-16UNF O-ring	3/8-16 UNC	3/8-24 UNF
F		M10	M10
I			
N		M10×1.25	

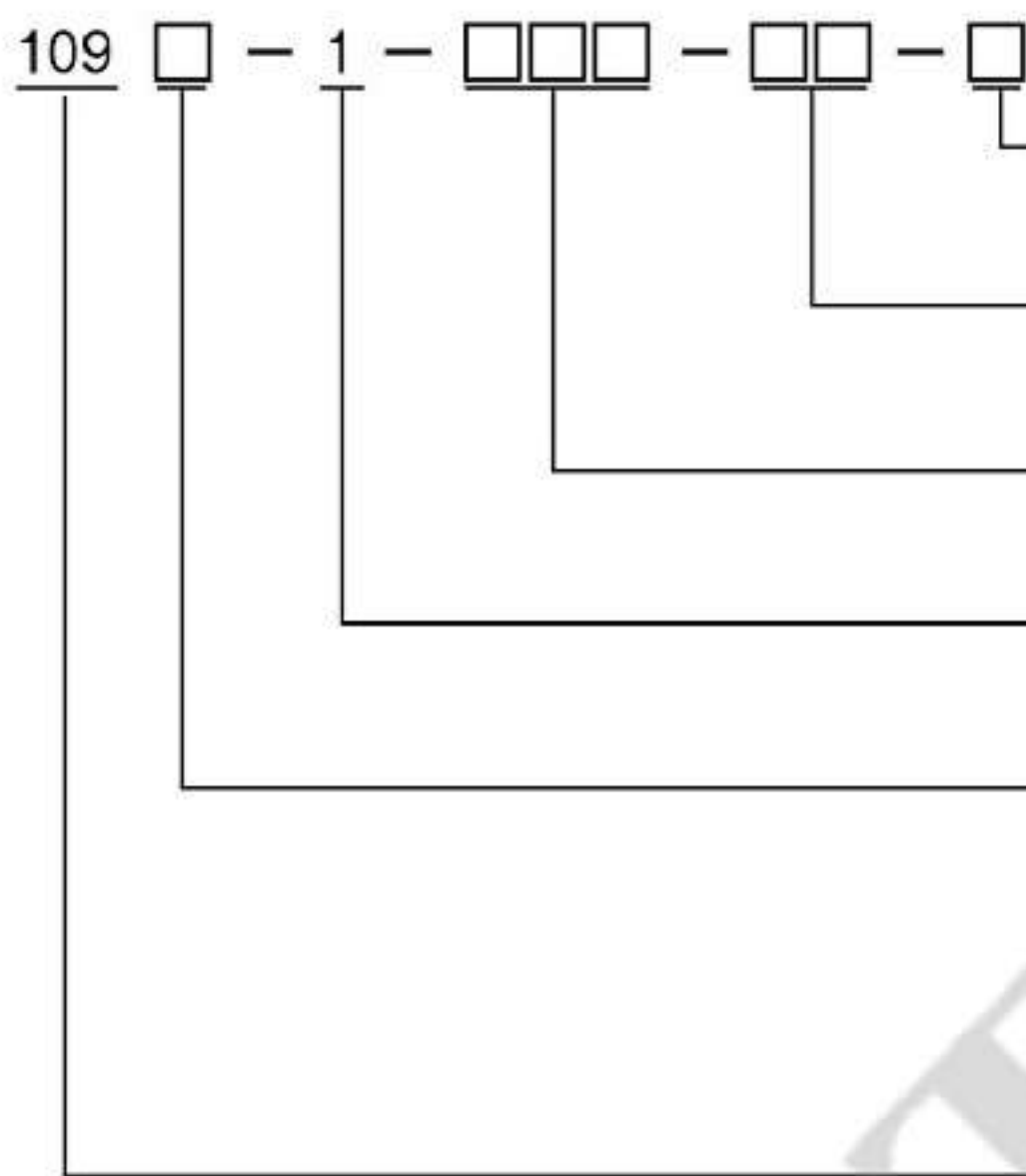
注1: 油口P、T、A、B的深度14 mm, 连接螺纹C、V的深度16 mm。
Note 1: Ports P,T,A,B Depth : 14 mm; Column Mounting C & V Depth: 16 mm.
注2: 其他油口连接方式协议确定代号。
Note 2: The code of other ports dimensions will be listed in an agreement.

109系列全液压转向器 109 Series Hydraulic Steering Control Unit (SCU)

109系列全液压转向器是整体集成式4/5齿结构的摆线全液压转向器。可以集成单向阀、安全阀、缓冲阀，结构小巧玲，连接尺寸符合国际规范，产品广泛运用于微型非道路车辆，如：微型叉车、小型拖拉机(及其它农机)、微型土方机械、市政养护车辆等。能够通过输入较小的力，获得较大的输出转向力矩，具有操作轻巧、灵活、可靠等特点。

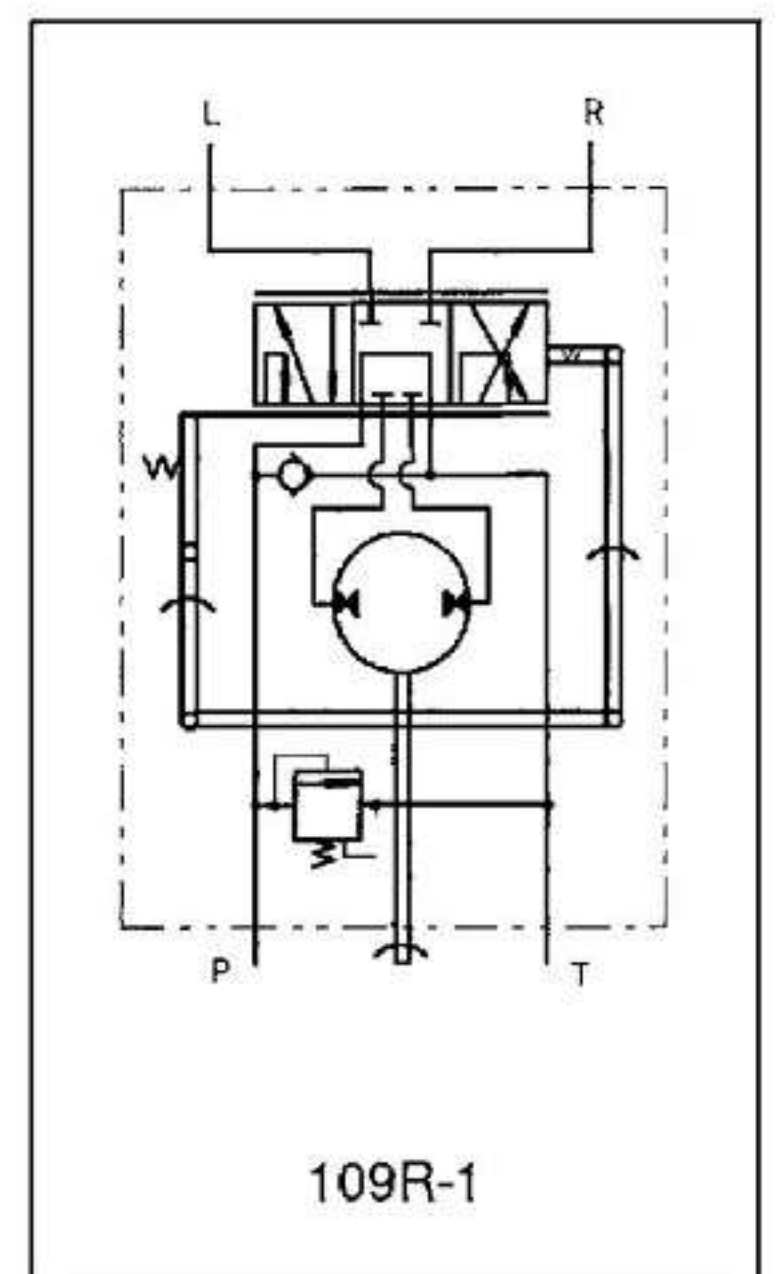
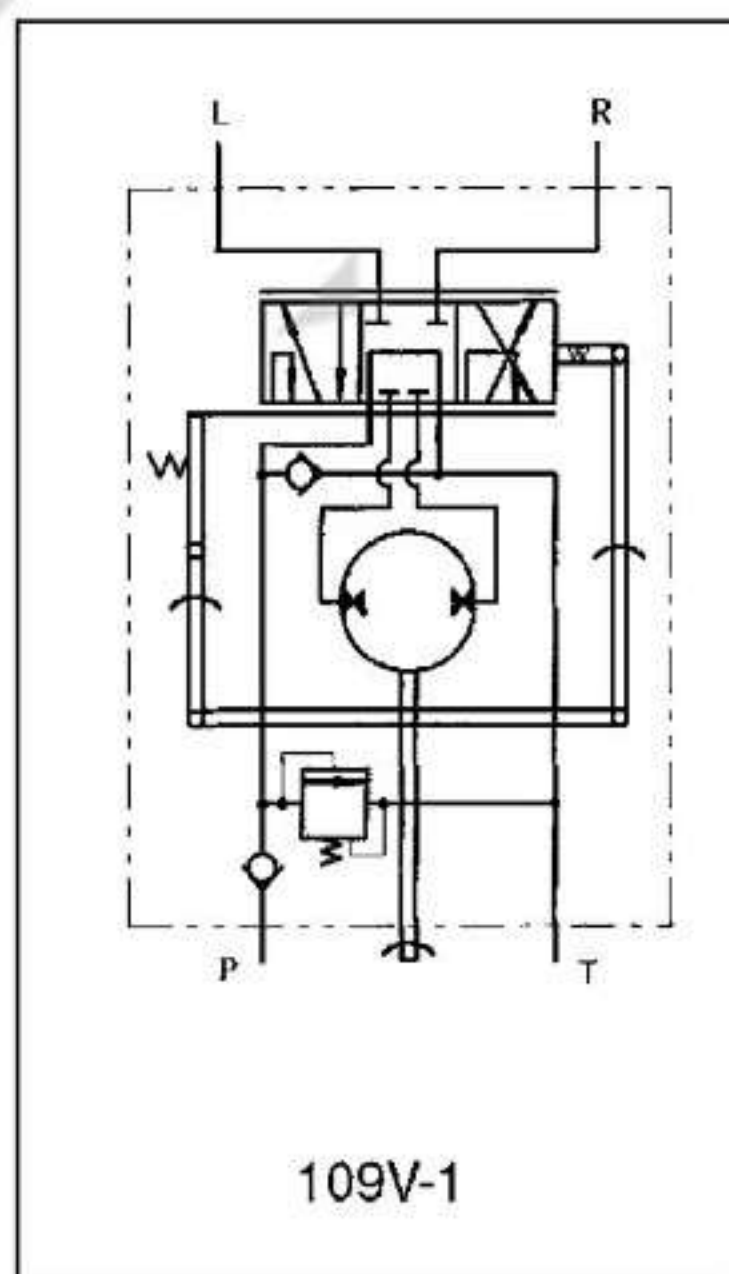
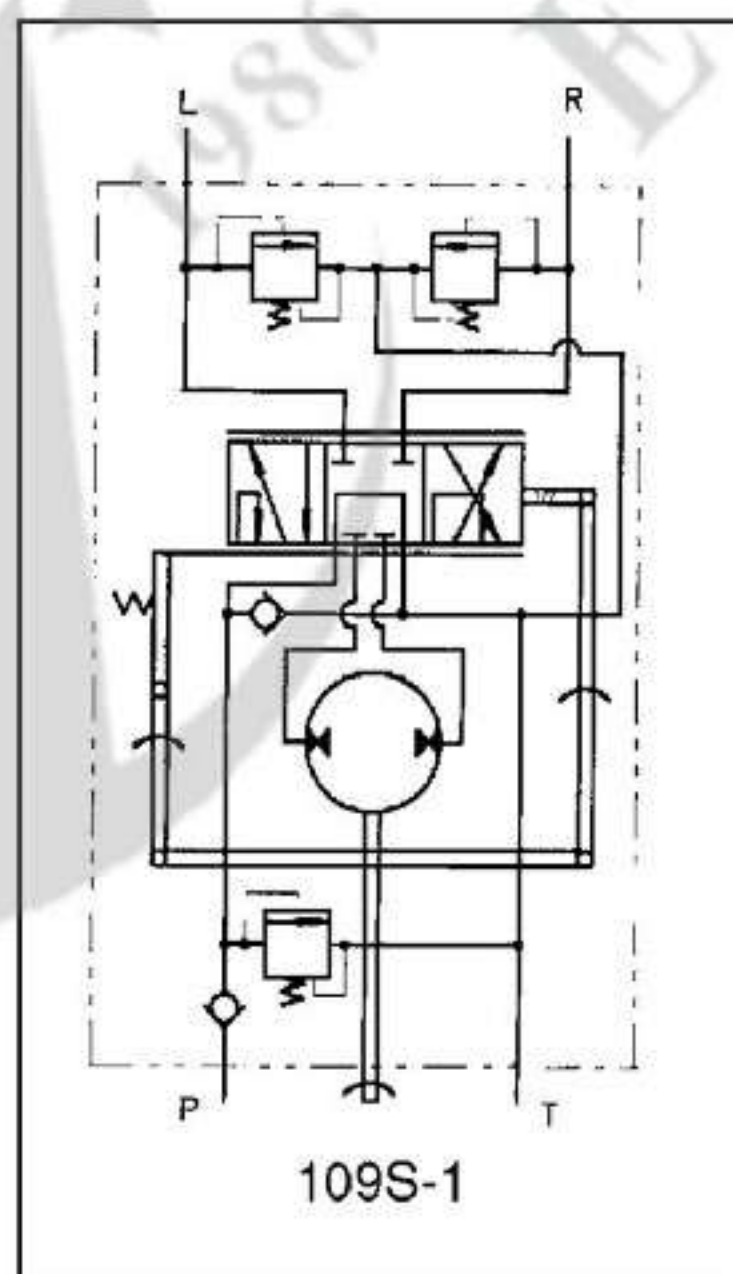
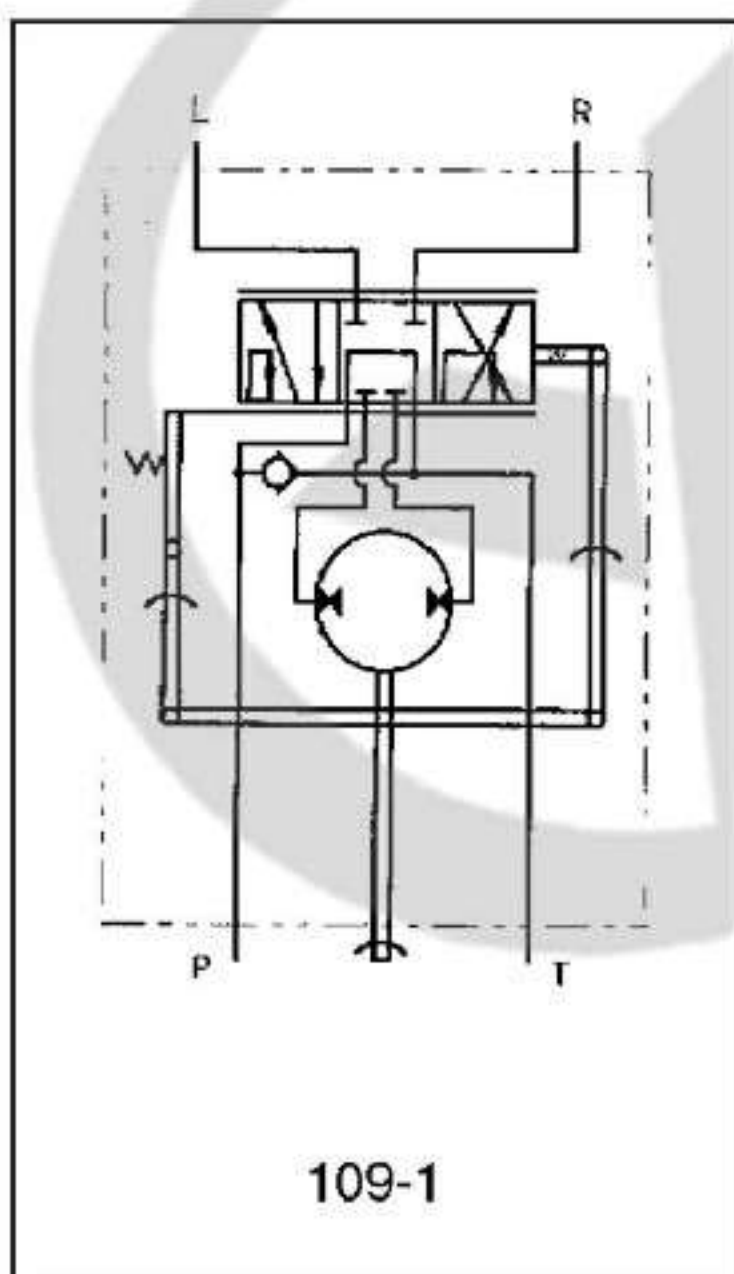
109 series hydraulic steering unit is an integrated orbital steering unit with 4/5 tooth structure. This kind of steering unit has a small and exquisite structure with integrated check valve, relief valve and shock valves and its mounting dimension conforms to international standard. This kind of steering unit is widely used in mini vehicles, such as mini forklift, mini tractor (and other agricultural machinery), mini earthmoving machinery, mini municipal vehicle, etc. It can obtain more steering output torque through input of less power, with features of easy, flexible and reliable operation.

型号说明 Order Code



- 连接尺寸标记
 - Mounting Data
 - 安全阀压力设定值
 - Relief Valves pressure settings
 - 排量
 - Displacement
 - 功能符号：开心无反应
 - Function Code: Open Center, Non-Reaction
 - 缺省：表示不含集成阀；Omit: Without Integrated Valve
 - S: 表示含入口单向阀、安全阀、缓冲阀
 - S: With Check Valve, Relief Valve, Shock Valves
 - V: 表示含入口单向阀、安全阀 V: With Check Valve, Relief Valve
 - R: 表示安全阀 R: With Relief Valve
- 109系列全液压转向器
109 Series Hydraulic Steering Control Units

功能符号 Function Code

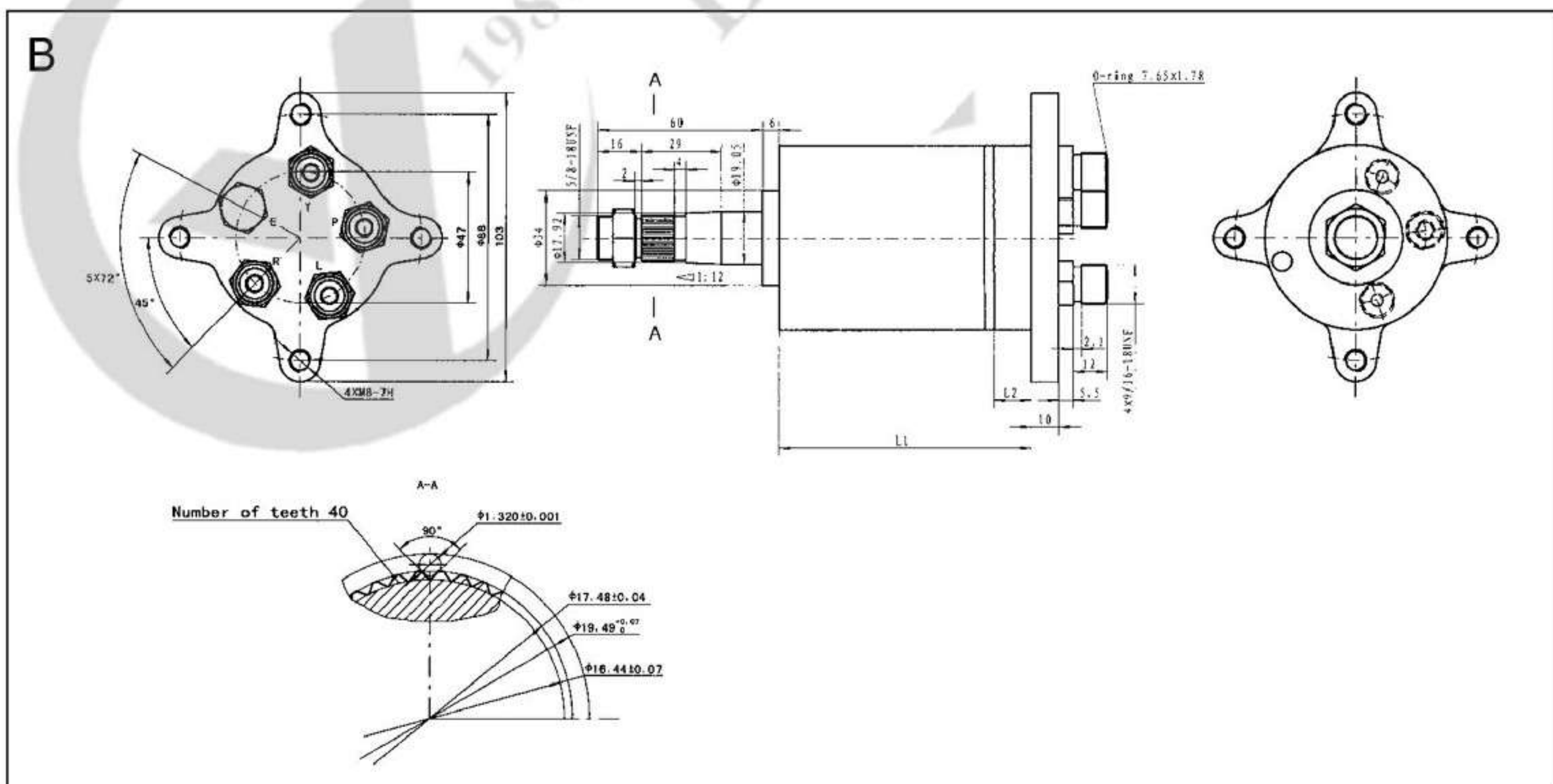
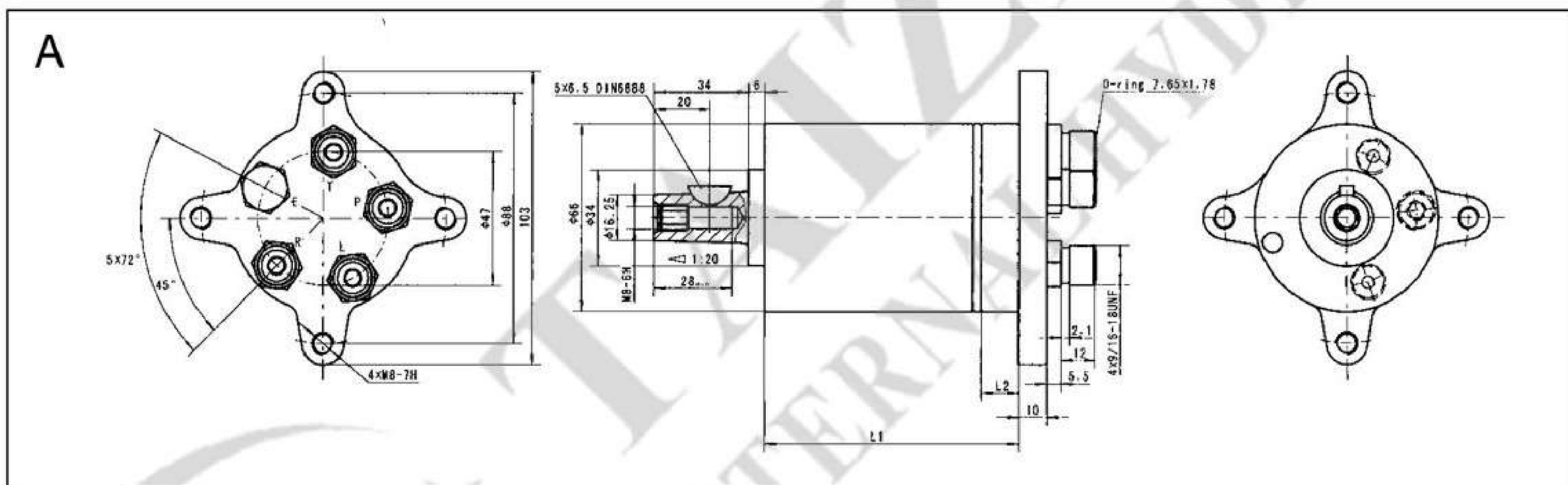


109系列全液压转向器 109 Series Hydraulic Steering Control Unit (SCU)

主要技术参数 Main Specification

Parameters	Type 109*-1-****-***					
Displacement(mL/r)	20	32	40	50	63	80
Rated flow(L/min)	3~20					
Rated Pressure(MPa)	12.5					
Relief Valve Pressure Settings(MPa)	06,07,08,09,10					
Shock Valves Pressure Settings(MPa)	12,13,14,15,16					
Steering Torque(N·m)	≤ 1.8					
Max. Cont. Pressure in Line T-P _r (MPa)	1					
Dimension L(mm)	87	92	96	100	105	113

连接尺寸 Mounting Data



109系列全液压转向器 109 Series Hydraulic Steering Control Unit

109系列全液压转向器 109 Series Hydraulic Steering Control Unit (SCU)

