

Priority Valve



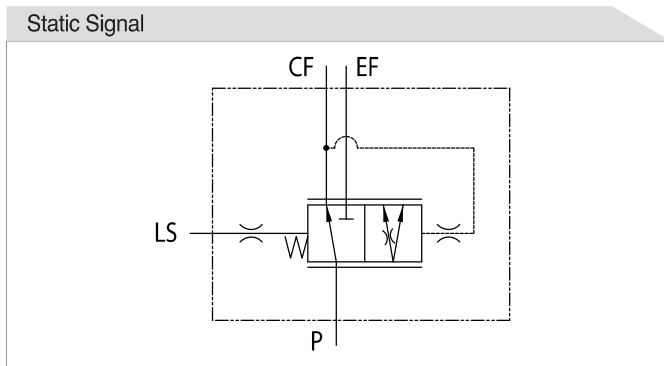
Used in the load sensing system, the Priority Valve controls the oil flow to the power steering unit. The Priority Valve sends the oil to a general functioning part when steering is in neutral. During the steering, it sends the oil to the power steering unit promptly. Hence, it is named "Priority Valve".

Benefits with Priority Valve

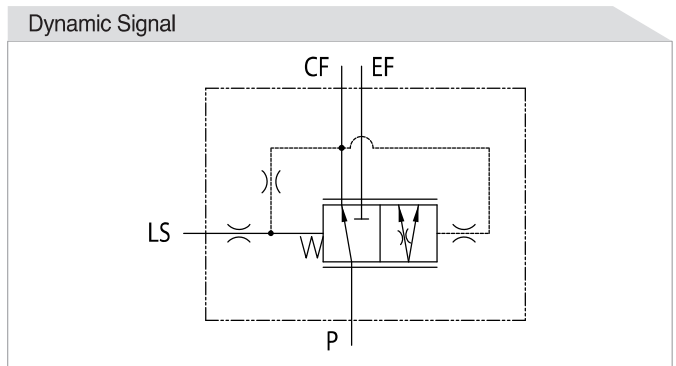
- * Using only one pump, both steering and actuating can be operated.
- * The oil just as much as the steering system needs to operate is supplied to the PSU and the rest is supplied to the actuators.
- * Even in the pressure fluctuation in the line of the steering, the steering is operated smoothly.

Static Signal Type

As a no-oil-flow system at LS port except the relief valve is operated, the structure and design is simpler



than the dynamic system. It is applicable where the demand for the response and circuit stability is not high.



Dynamic Signal Type

It allows a small amount of oil to flow at LS line to the PSU by making a path with orifice at spool. Control pressure can be easily adjusted by modifying the size of the orifice. While it is more complicated than the static system, response and steering capability is much better.

- * Features
 - Quick response
 - Easily adjustable control pressure
 - Excellent steering performance due to the pressure compensation.

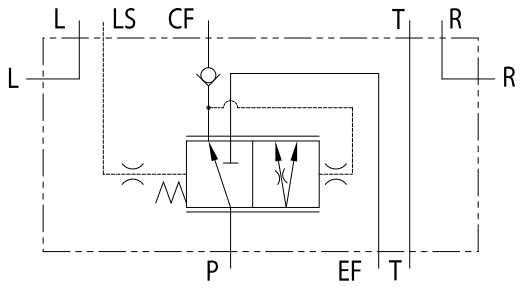
Direct Mounting Priority Valve

* Features
Direct Mounting Priority Valve is mounted to the power steering unit directly (Applicable to the Integral power

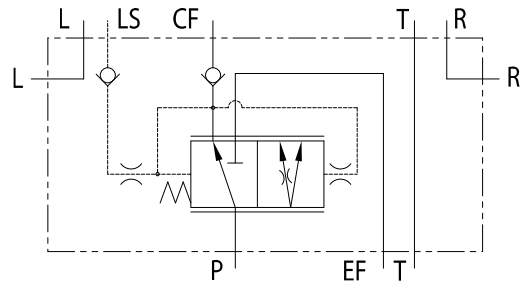
steering unit). This kind of direct mounting priority valve usually has a built-in check valve. Compared with the general priority valves, this has the following advantage.

- Check valve built in on CF-line or LS-line
- Reduce the pipe line and noise, wheel kickback due to compact size.
- Circuit diagram below shows the Static Signal and Dynamic Signal type

Static Signal Type

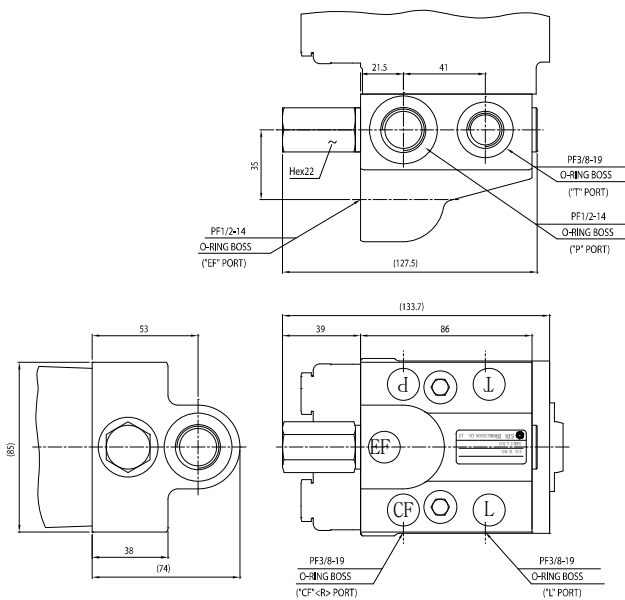


Dynamic Signal Type with Check Valves

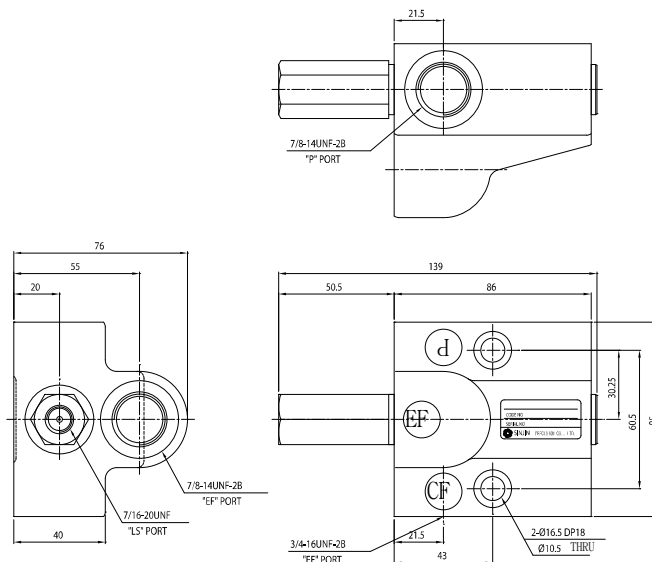


* Features

Direct Mounting Priority Valve



Pipe Mounting Priority Valve



Code and specification

PVADS040UR0A

PVAD	S	040	U	R0	A
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① Design Name

PVAD: Direct Mounting Priority Valve

PVAP: Pipe Mounting Priority Valve

② System Symbol

S: Static Signal, 40 lpm

F: Static Signal, 80 lpm

D: Dynamic Signal, 40 lpm

E: Dynamic Signal, 80 lpm

③ Control Spring Pressure

040: 4.0 bar

070: 7.0 bar

100: 10.0 bar

④ Port Size

Code	Port	Size	Type
U	P, EF	7/8–14 UNF	Direct Mounting
	T, R, L	3/4–16 UNF	
U	P, EF	7/8–14 UNF	Pipe Mounting
	CF	3/4–16 UNF	
	LS	7/16–20 UNF	
G	P, EF	G 1/2	Direct Mounting
	T, R, L	G 3/8	
G	P, EF	G 1/2	Pipe Mounting
	CF	G 1/2	
	LS	G 1/4	

⑤ Relief Pressure

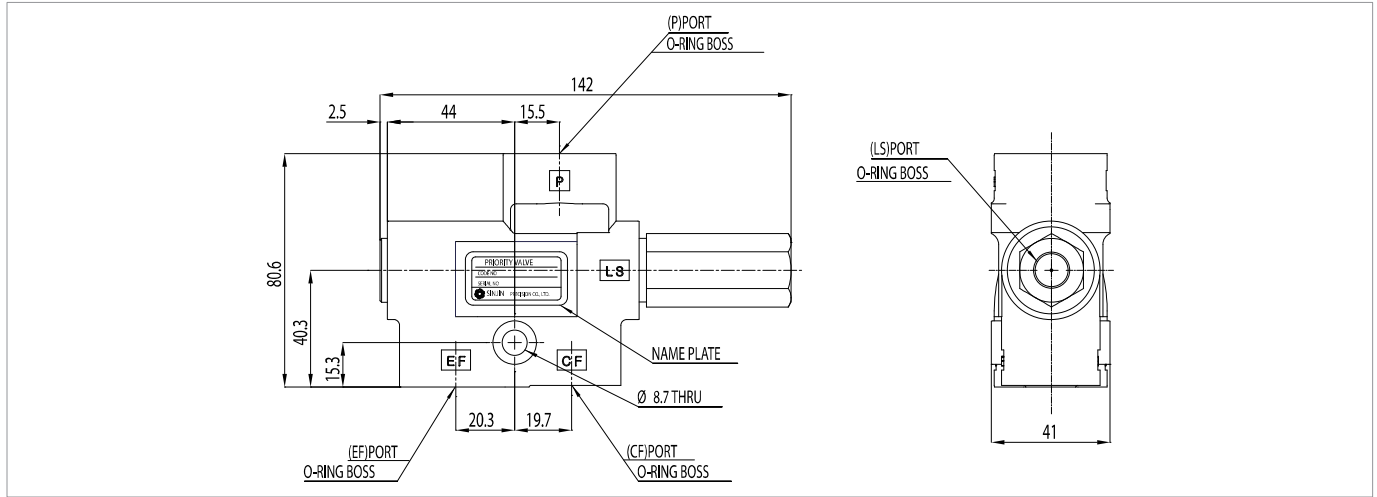
R0: No Relief

⑥ Design Symbol

A: Initial Design

In-line Type 40 lpm

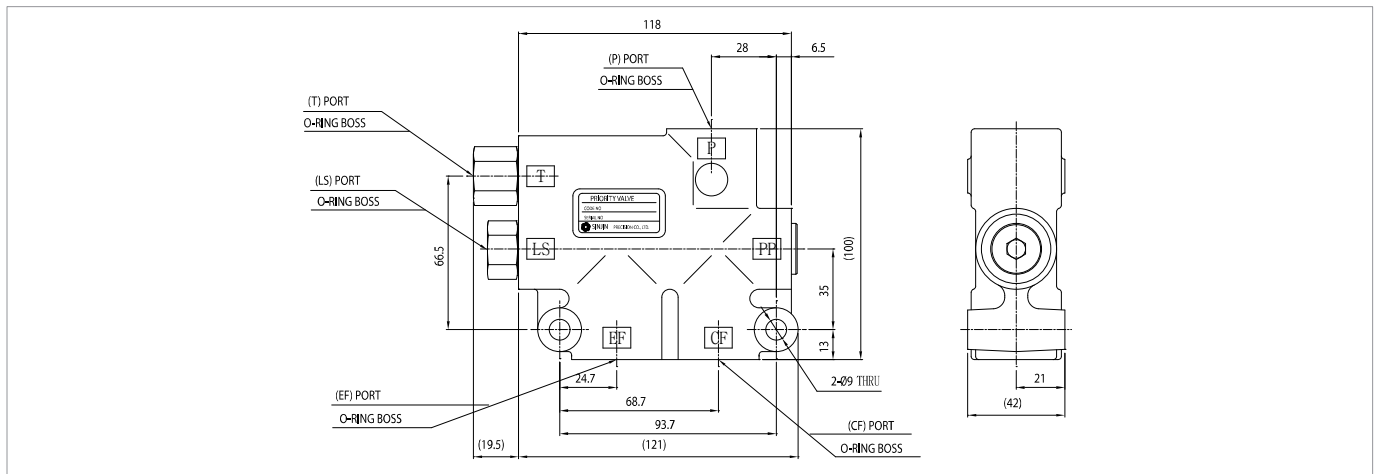
It is a small and simple product of its type and the control pressure can be adjusted easily.



Code	Port	Size
P	P, EF	PF 1/2
	CF	PF 1/2
	LS, T	PF 1/4
U	P, EF	7/8-14 UNF
	CF	3/4-16 UNF
	LS, T	7/16-20 UNF

In-line Type 80 lpm

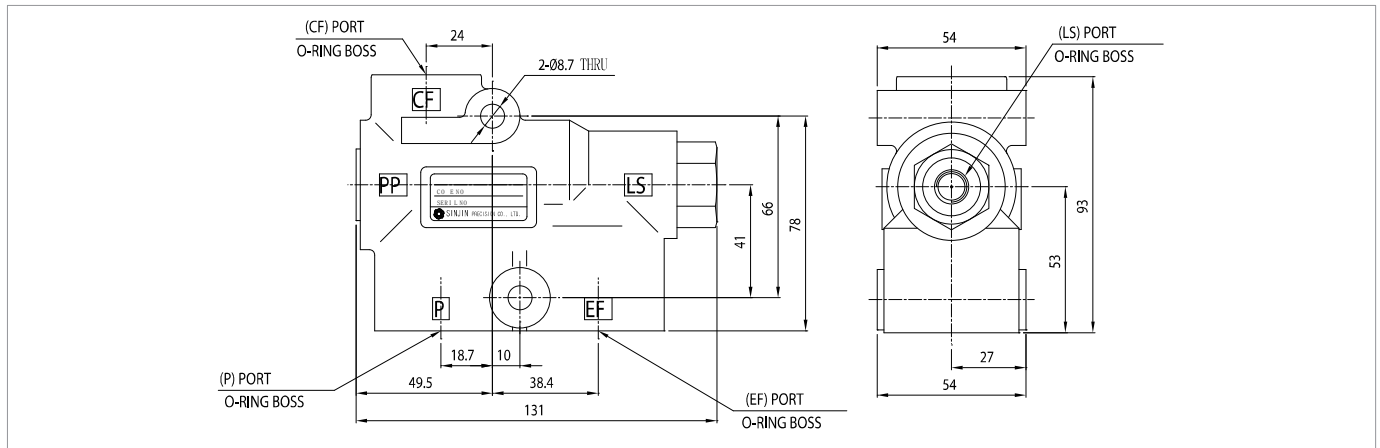
As a most general type of priority valve, the control pressure can be adjusted easily. In addition, relief valve can be installed by option.



Code	Port	Size
U	P, EF	7/8-14 UNF
	CF	3/4-16 UNF
	LS, T	7/16-20 UNF

In-line Type 120 lpm

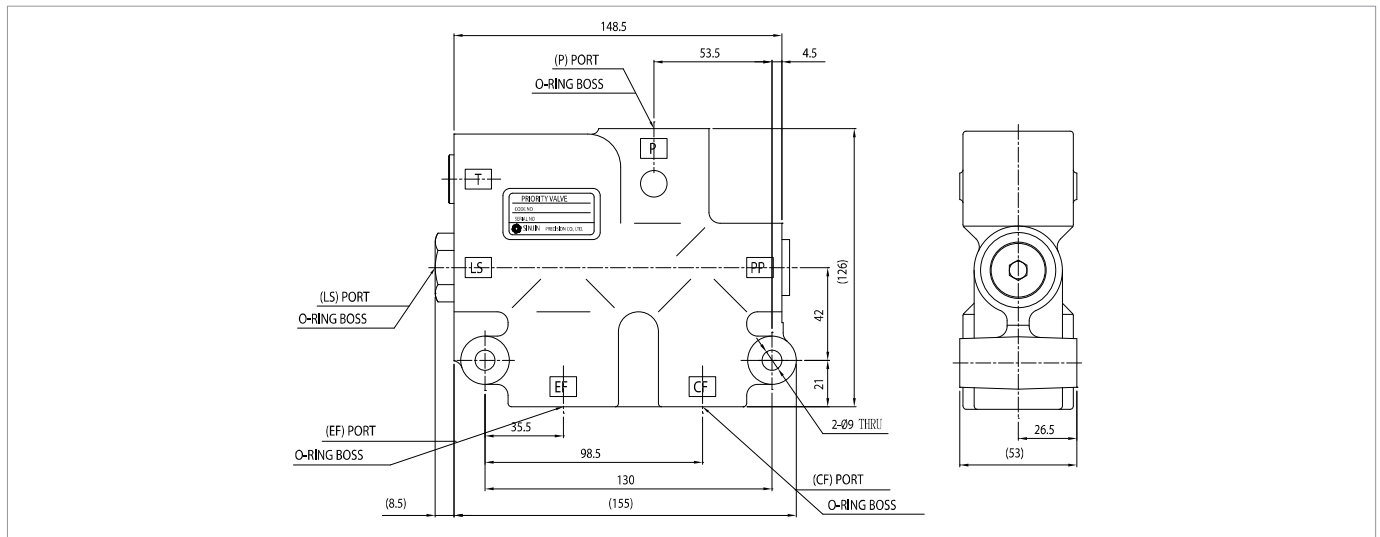
Removing the relief valve, the priority function is enhanced.



Code	Port	Size
U	P, EF	1 1/16-12 UNF
	CF	3/4-16 UNF
	LS, T	7/16-20 UNF

In-line Type 160 lpm

As a priority valve used for heavy vehicle, control pressure can be adjusted easily.
In addition, relief valve can be installed by option.



Code	Port	Size
P	P	PF 3/4
	CF	PF 1/2
	EF	PF 3/4
	LS	PF 1/4
U	P, EF	1 1/16-12 UNF
	CF	3/4-16 UNF
	LS	7/16-20 UNF

Code and specification

PVLT	D	080	U	70	A
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PVLTD080U70A

- ① Design Name _____
 PVLT : In-line Priority Valve, 40 lpm
 PVLS : In-line Priority Valve, 80 lpm
 PVLM : In-line Priority Valve, 120 lpm
 PVLL : In-line Priority Valve, 160 lpm

- ② System Symbol _____
 S: Static Signal
 D: Dynamic Signal

- ③ Control Spring Pressure _____
 034: 3.4 bar, 040: 4.0 bar, 048: 4.8 bar, 055: 5.5 bar
 070: 7.0 bar, 080: 8.0 bar, 090: 9.0 bar

- ④ Port Size _____
 P: PF Thread
 U: UNF Thread

- ⑤ Relief Pressure _____
 70 : 70 bar
 00 : Without Relief Valve (Unavailable for PVLT, PVLM)

- ⑥ Design Symbol _____
 A: Initial Design