

# ELECTRONIC DISPLACEMENT CONTROL FOR THE K3VL PUMP SERIES

## GENERAL DESCRIPTION

Kawasaki has introduced an electronic displacement control option for the K3VL axial piston pump series. This control feature is available beginning in June of 2002. The electronic displacement control allows the user to vary the displacement of the K3VL pump as a function of an electrical input signal. Kawasaki has proven this design on the K3V pump series, which has been applied to demanding excavator applications for more than 15 years.



## KEY FEATURES

The key features of the K3VL electronic displacement control include:

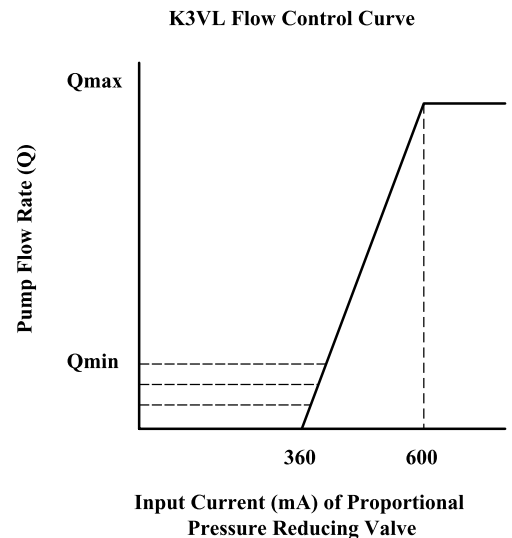
1. Allows the user to vary pump flow as a function of an electrical input signal.
2. The control responds quickly to an electronic displacement change command.
3. The displacement control has low hysteresis and is highly repeatable.
4. The regulator has a compact design.

## FLOW CONTROL PERFORMANCE CHARACTERISTICS

Varying the input current signal to the pump controller's electronic proportional pressure reducing valve (PPRV) allows the user to control the pump displacement. As the current signal to the PPRV increases, the pump displacement increases proportionally.

## APPLICATION CONSIDERATIONS

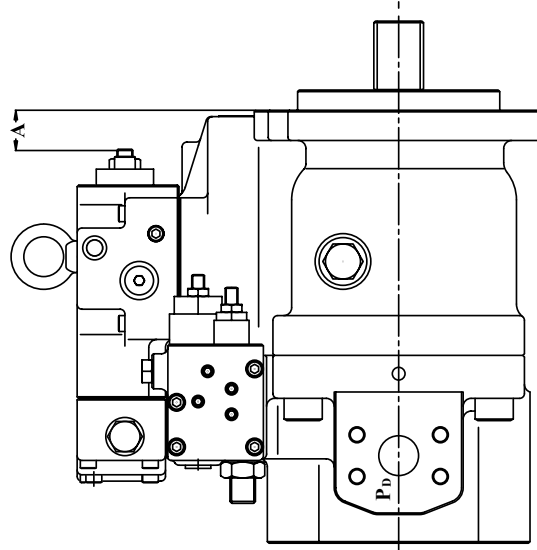
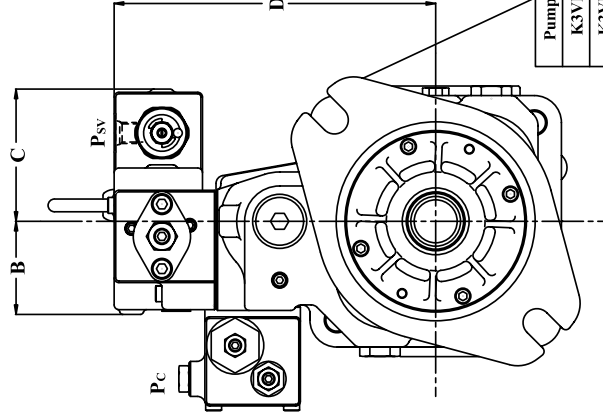
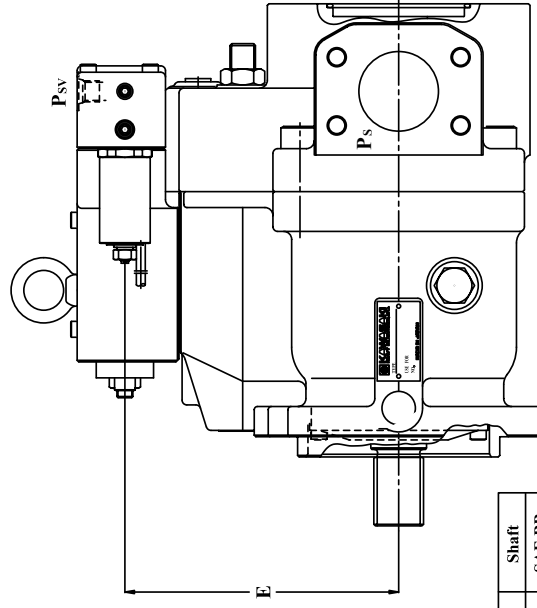
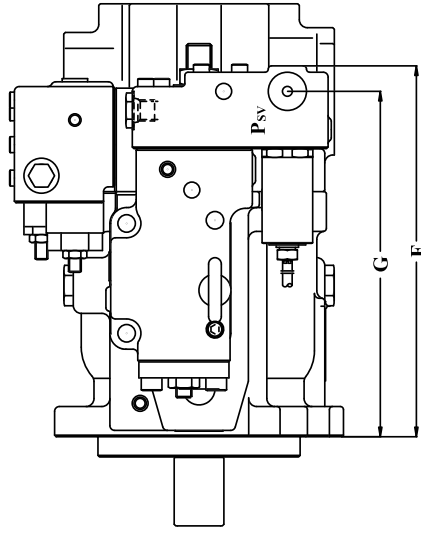
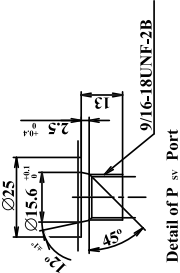
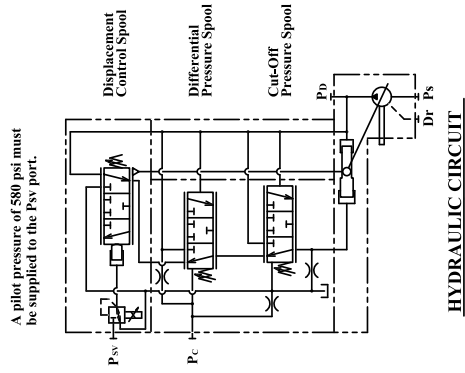
The standard minimum flow setting for the K3VL pump is 0.5-3.0% of the maximum pump delivery. The pumps minimum displacement stop can be modified if a greater minimum flow rate is required. In order for the electronic displacement control to function, a minimum pilot pressure of 580 psi must be supplied to the Psv port on the regulator. A gear pump attached to the rear of the K3VL pump or an external pressure source can be used to provide the required pilot pressure.



# K3VL ELECTRIC FLOW CONTROL SCHEMATIC AND INSTALLATION DIMENSIONS

Installation Dimensions IN (MM)

Pump Size	A	B	C	D	E	F	G
K3VL45	0.83 (21)	2.05 (52)	3.54 (90)	7.36 (187)	6.18 (157)	8.90 (226)	8.27 (210)
K3VL80	0.98 (25)	2.32 (59)	3.27 (83)	7.95 (202)	6.77 (172)	9.17 (233)	8.54 (217)
K3VL112/140	1.50 (38)	2.52 (64)	3.07 (78)	9.61 (244)	8.43 (214)	10.08 (247)	9.09 (231)



Pump Size	Mounting	Shaft
K3VL45	SAE B-2 Bolt	SAE BB
K3VL80	SAE C-2 Bolt	SAE C
K3VL112/140	SAE D-4 Bolt	SAE D

Specifications subject to change without notice.