

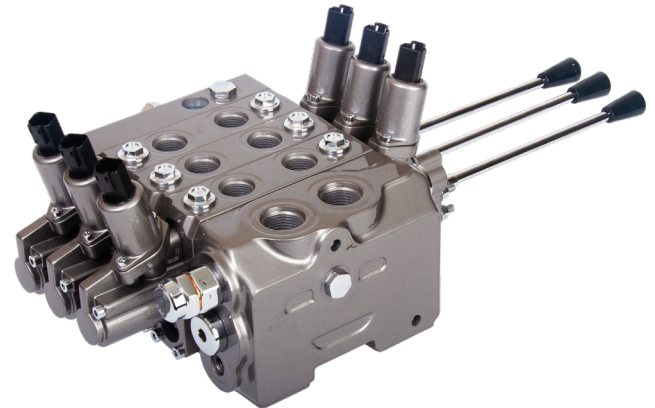
L125 SERIES

POST-COMPENSATED SECTIONAL LOAD SENSE VALVE



TAKE CONTROL

Take control with Muncie Power Products' L125 directional control valve. The L125 is constructed with high-grade iron castings and nickel-plated spools for use in high-pressure applications and can be configured with many different spool, control and positioner options. The L125 is designed for flow rates up to 40 GPM (150 LPM), and offers superior performance in a compact package. Muncie Power Products takes pride in supplying the highest quality products along with outstanding service and support.



KEY FEATURES

- High-grade iron castings allow for high-pressure capabilities for the most extreme applications
- Nickel-plated spools resist wear allowing for long life under high-pressure conditions
- Tight tolerances and precision machining keep internal spool leakages low
- Internal oil core design allows for higher flow rates and low pressure drops
- Load checks on work sections and inlet relief valves are standard
- Versatile design can be configured with different spool, control, positioner and accessory options
- Work sections are preassembled and 100 percent tested prior to shipping

Additional options available, lead times may apply.

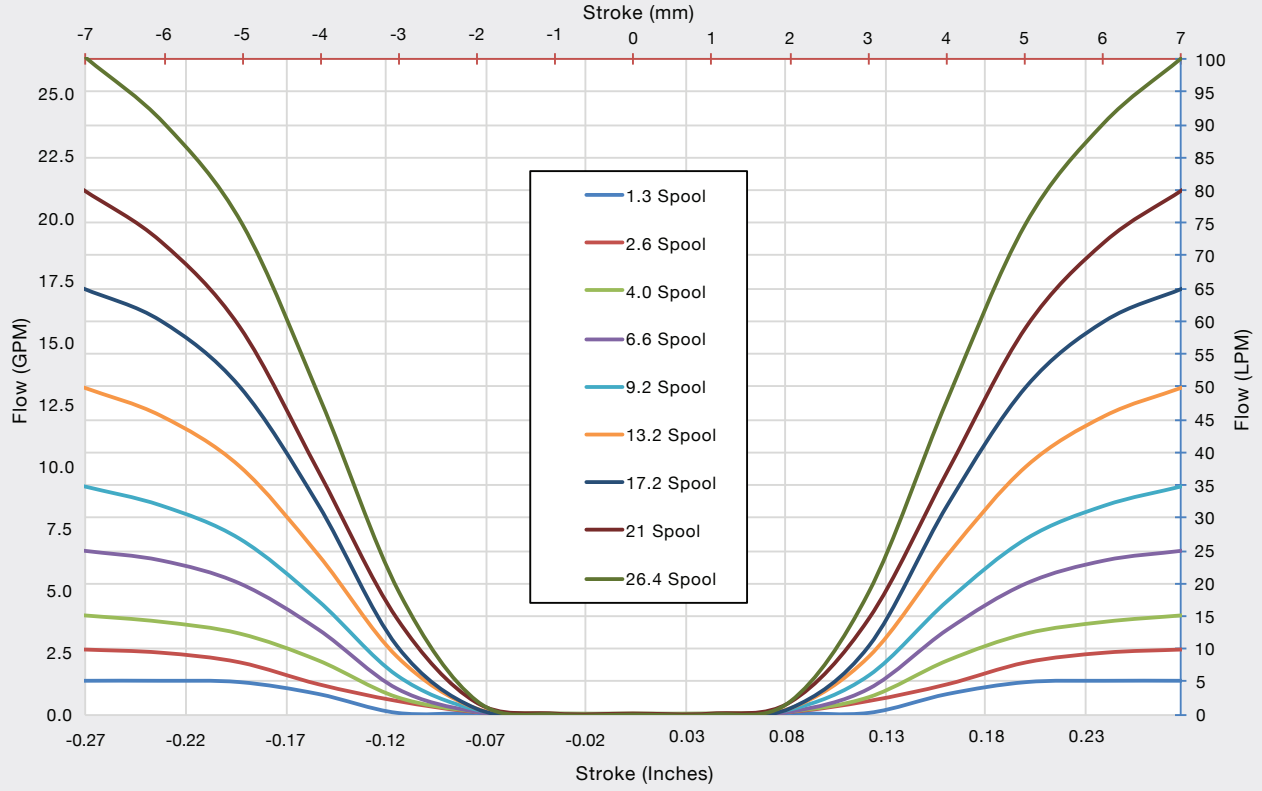
TECH SPECS

DESIGN TYPE	SECTIONAL
Maximum Work Sections	10
Circuit Types	Post-compensated load sense with open or closed center
Flow Capacity	Nominal: 33 GPM (125 LPM) Maximum: 40 GPM (150 LPM)
Maximum Pressure	5,075 PSI (350 BAR)
Maximum Back Pressure	145 PSI (10 BAR)
Stand by Pressure	200 PSI (14 BAR)
Recommended Filtration	20/18/15 (ISO 4406:1999)
Oil Viscosity Range	60 to 1,360 SUS (10 to 300 cSt)
Oil Temperature Range	-40 to 185°F (-40 to 85°C)
Recommended Oil Temperature	-40 to 140°F (-40 to 60°C)
Approximate Weights (Standard Options)	Inlet: 13.8 lbs. (6.26 kg) Outlet: 8.3 lbs (3.74 kg) Work Section: 8.8 lbs (4.0 kg) (Manual Control) 10.8 lbs (4.9 kg) (Electrohydraulic Control)

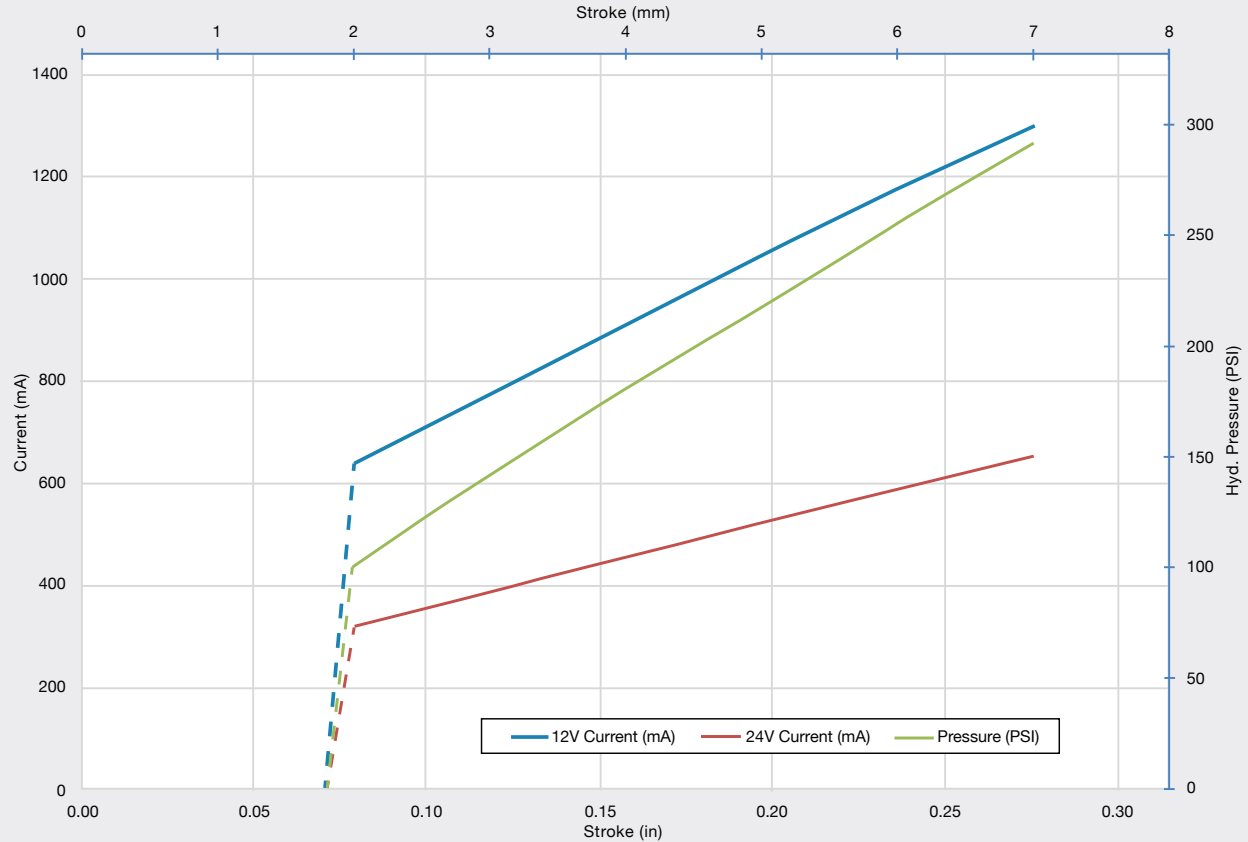
PERFORMANCE CURVES

FIXED DISPLACEMENT SYSTEMS

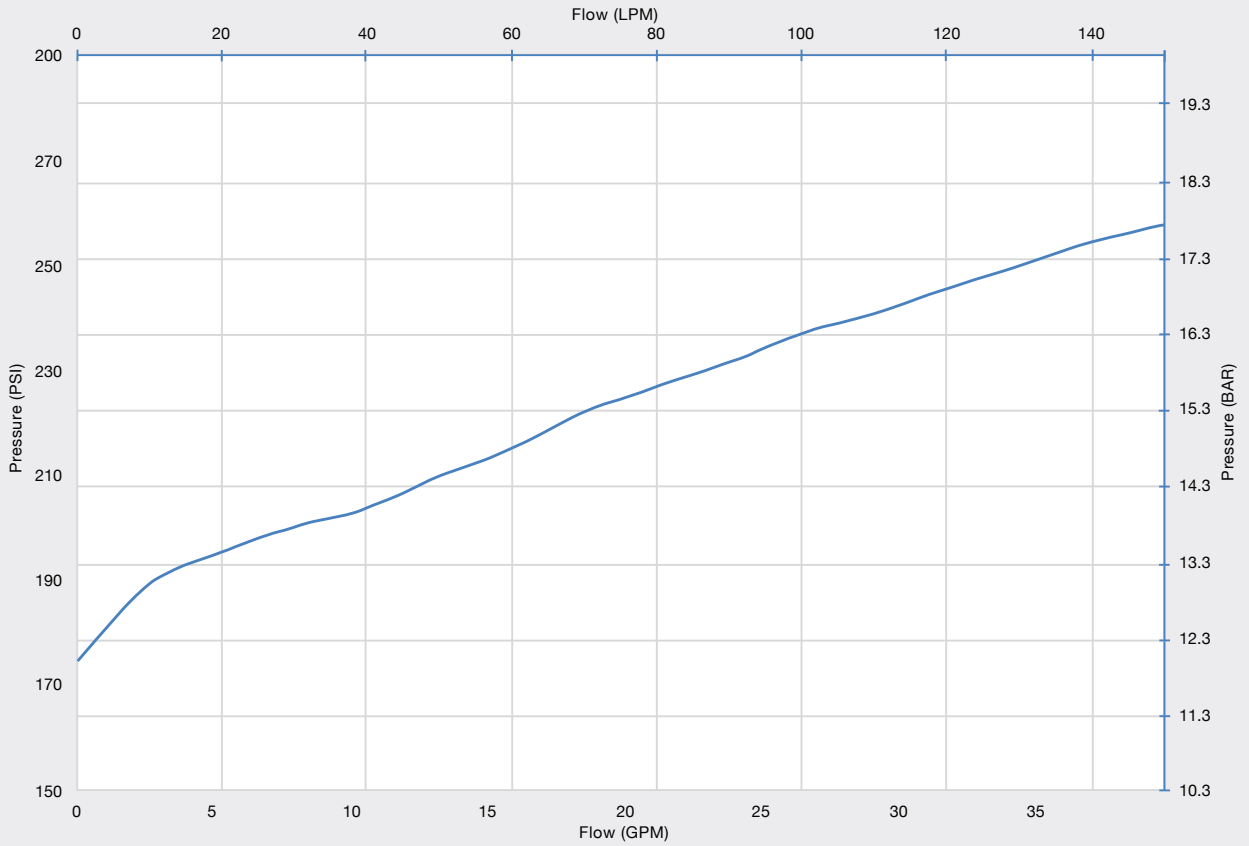
Post-compensated Spool Flow Characteristics



Spool Travel with Electric Current or Hydraulic Pressure

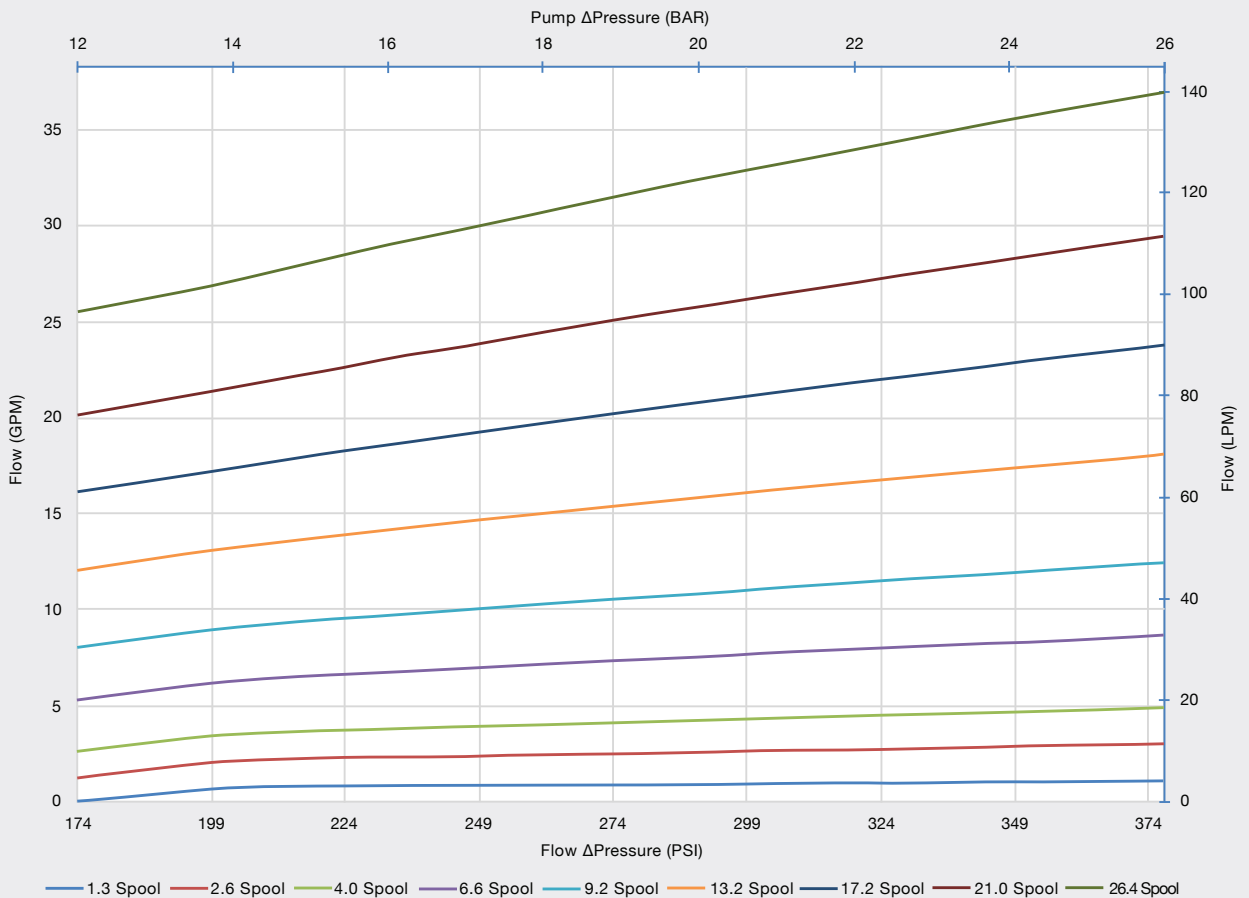


Inlet Compensator Pressure Drop for Fixed Displacement Pumps (P-T)



VARIABLE DISPLACEMENT SYSTEMS

Post-compensated Spool Flow Characteristics as a Function of Pump ΔP Setting



DIMENSIONS

MANUAL CONTROL VERSION

Port Size and Type

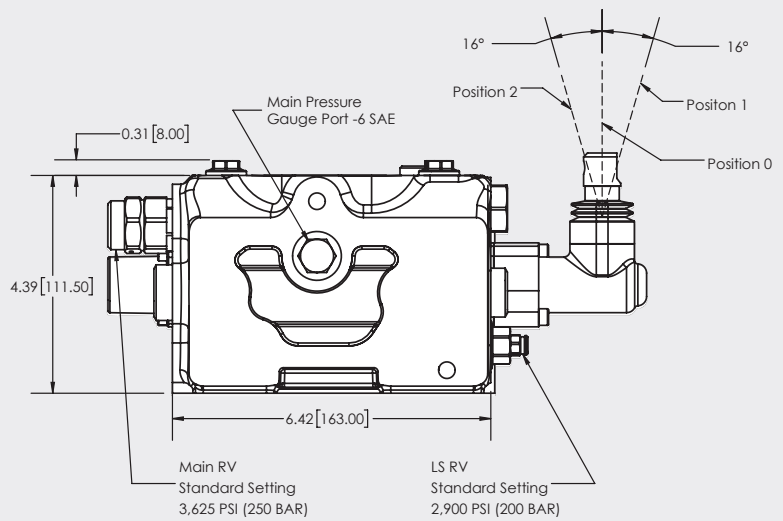
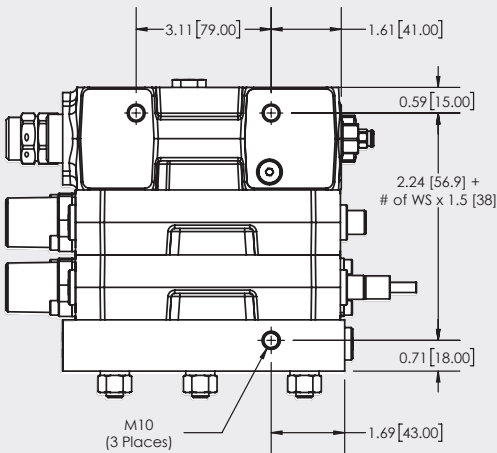
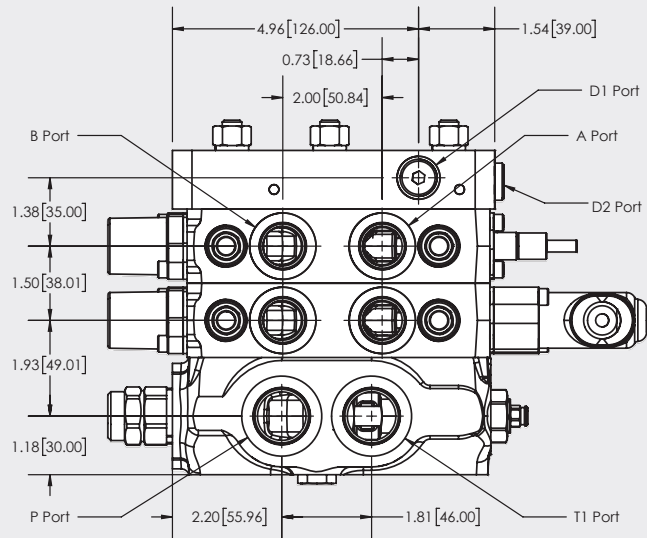
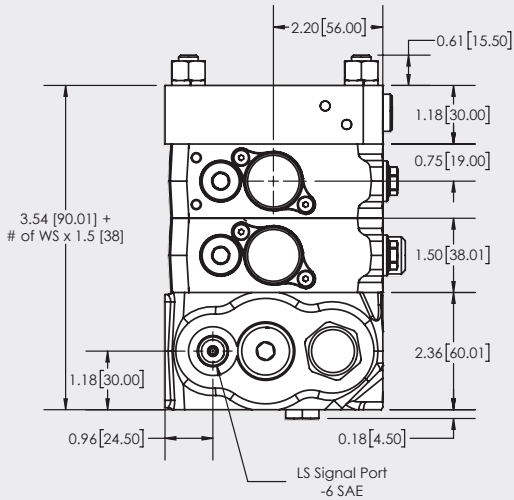
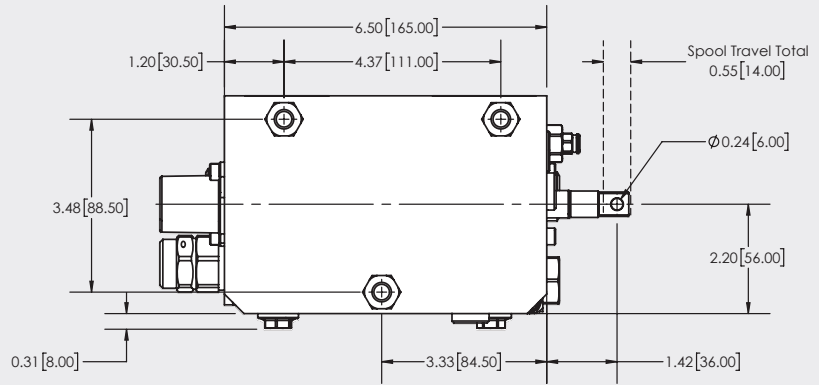
Inlet Ports = -12 SAE

Work Ports = -10 SAE

T1 Outlet = -12 SAE

D1 & D2 = -6 SAE

Note: With the "1M1" end plate for manual controls, LS signal and pilot pressure drain internally

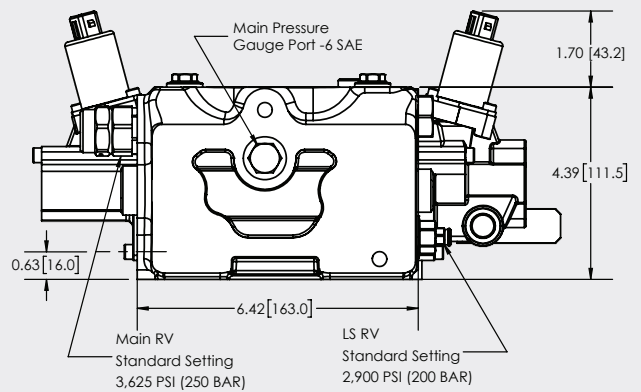
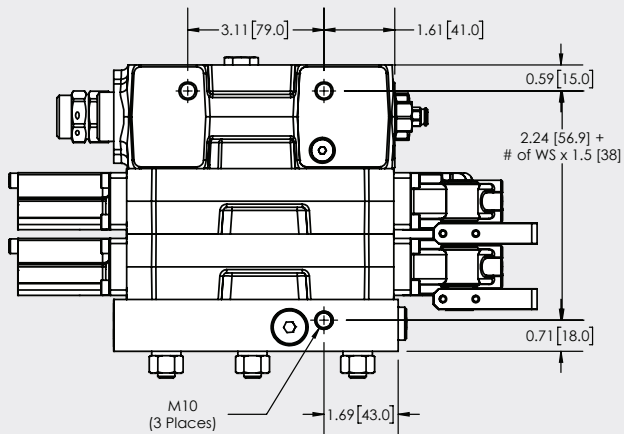
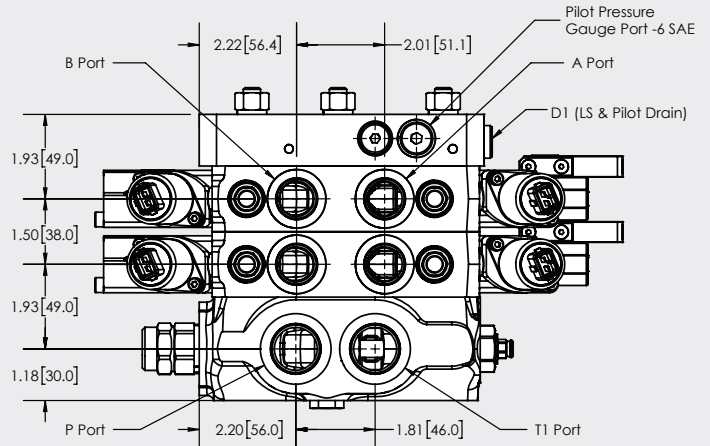
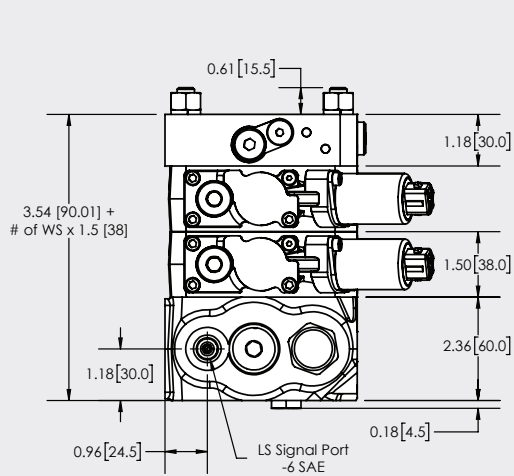
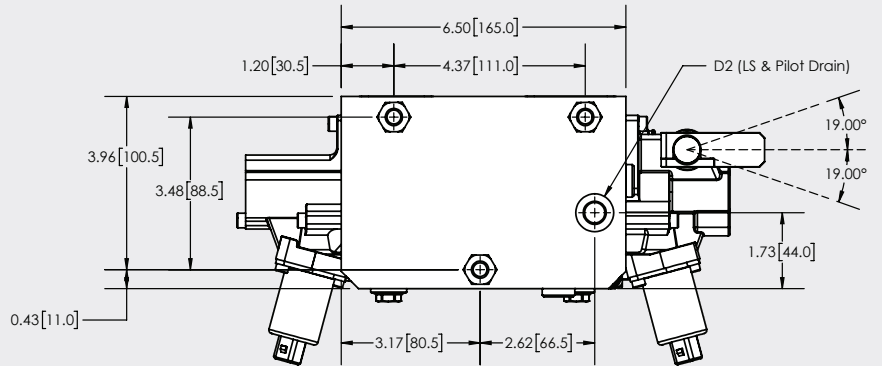


	Position "0"	Position "1"	Position "2"
Pressure	N/A	"A" Port	"B" Port
Handle	Neutral	Pulled Out	Pushed In

ELECTROHYDRAULIC CONTROL VERSION

Port Size and Type
 Inlet Ports = -12 SAE
 Work Ports = -10 SAE
 T1 Outlet = -12 SAE
 D1 & D2 = -6 SAE

Note: Either D1 or D2 can be utilized as the LS signal & pilot pressure drain (One must be plumbed to tank)



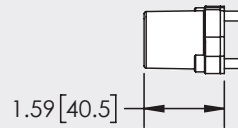
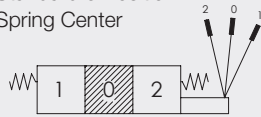
BACK-CAP OPTIONS

CONTROL OPTIONS

Manual Control Options

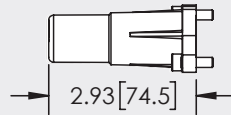
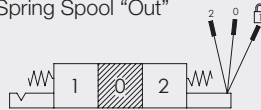
L125-BC-01

Standard 3 Position
Spring Center



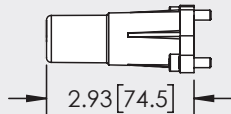
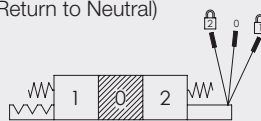
L125-BC-06

06 - Detent Spool "IN",
Spring Spool "Out"



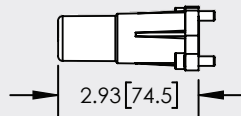
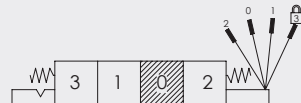
L125-BC-08

3 Position Detent (Detent in
"A" and "B" **Only**, Spring
Return to Neutral)



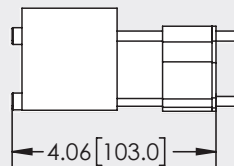
L125-BC-12

3 Position Spring Return
with 4th Position Detent



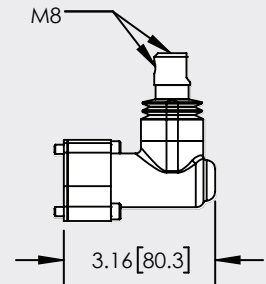
L125-BC-33

Pneumatic Air Shift,
On/Off or Proportional
(Use with Control Type
AA, AE or AJ)



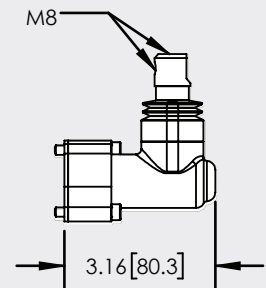
L125-CT-AA

Standard Lever Cap
*(Note: Handle Lever Not Included)
P/N VLVH-01-B-180)



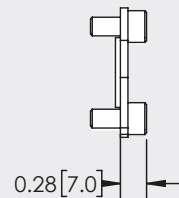
L125-CT-AB

Lever Cap for Float Spool
*(Note: Handle Lever Not Included)
P/N VLVH-01-B-180)



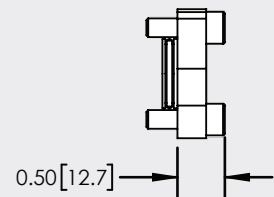
L125-CT-AJ

Spool Eye Only for
Direct Connection



L125-CT-AK

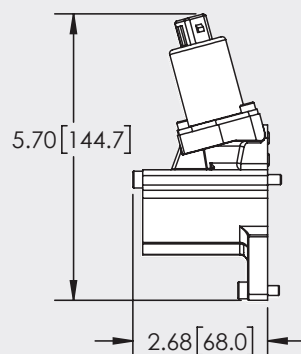
Spool Eye Only for
Direct Connection



Electrohydraulic Options (Must be used together)

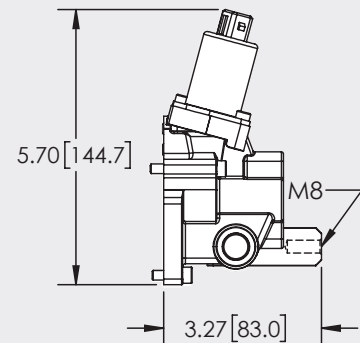
L125-BC-49

3 Position Electrohydraulic
Control, Proportional
12 VDC (Deutsch, DT4)



L125-CT-BV

12VDC Electrohydraulic
Proportional Control
with Lever Connection
and Stroke Limiters



INLET SECTIONS

L125-A-QK-J00-25-20-X

MPP Valve Series

L125 = 33 GPM Nominal LS Valve

Section Type:

A = Inlet

Port Type:

QK = -12 SAE by -12 SAE w/-6 SAE LS Port

Inlet Options:

K00 = Inlet for Fixed Displacement Pumps
has Main RV and LS RV

J00 = Inlet for Variable Displacement Pumps
has Main RV and LS RV

Special Features:

X = Standard

LS Relief Valve Setting*:

13 = 1,815 PSI (125 BAR)

15 = 2,175 PSI (150 BAR)

20 = 2,900 PSI (200 BAR) Standard

Main RV Setting*:

17 = 2,400 PSI (165 BAR)

20 = 2,900 PSI (200 BAR)

25 = 3,625 PSI (250 BAR) Standard

**LS Relief must be, at minimum, 580 PSI (40 BAR) less than the Main RV*

INLET RELIEF VALVES (Main & Load Sense)

L125-AB-L-200-LS

L125 Valve Series

L125 = 33 GPM Nominal LS Valve

Section Type:

AB = Used with Inlet

Relief Valve Adjustment Range:

Main RV Options:

N = 580-2,900 PSI (40-200 BAR)

R = 2,915-6,090 PSI (201-420 BAR)

Load Sense RV Options:

L = 725-3,625 PSI (50-250 BAR)

M = 3,640-5,075 PSI (251-650 BAR)

Relief Valve Use:

Leave Blank for Main Relief Valve

LS = Load Sense Relief Valve

Relief Valve Setting in BAR:

Main RV Options:

165 = 2,400 PSI

200 = 2,900 PSI

250 = 3,625 PSI

Load Sense RV Options:

125 = 1,185 PSI

150 = 2,175 PSI

200 = 2,900 PSI

END PLATES

L125-C-ER-1MI-XXX

L125 Valve Series

L125 = 33 GPM Nominal LS Valve

Section Type:

C = End Plate

Port Size & Type:

ER = -6 SAE by -6 SAE LS Drain Ports

Additional Outlet Options:

XXX = No options

Outlet Type:

1MI = End Plate for Manual Controls
(Internal Drain for LS signal Pilot Pressure)

2EH = End Plate for Electrohydraulic Controls
(Must utilize -6 SAE external drain for LS signal and Pilot Pressure)

STUD KITS

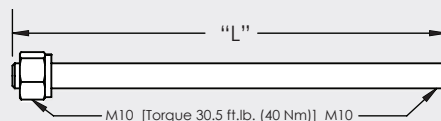
L125-T-01

L125 Valve Series

T = Tie Rod

Number of Work Sections

01-10 (1-10 Work Sections)



No. of Work Sections	1	2	3	4	5	6	7	8	9	10
"L" (in/mm)	3.74 / 95	5.24 / 133	6.77 / 172	8.27 / 210	9.76 / 248	11.30 / 287	12.76 / 324	14.21 / 361	15.75 / 400	17.24 / 438

MODEL NUMBER CONSTRUCTION

WORK SECTIONS

L125-ZR-AA-01 FM-02-X

L125 Valve Series

L125 = 33 GPM Nominal LS Valve

Spool Type:

Cylinder	Motor	4th Pos.	Max Flow	
			GPM	LPM
ZC	YE	--	1.3	5.0
ZD	YF	XH	2.6	10.0
ZE	YG	--	4.0	15.0
ZF	YH	--	6.6	25.0
ZG	YJ	XM	9.2	35.0
ZJ	YM	--	13.2	50.0
ZM	YP	XS	17.2	65.0
ZN	YR	XT	21.0	80.0
ZR	YT	--	26.4	100.0

Control Type:

- AA = Handle Control Actuator (Handle not included) (See Note 1)
- AB = Handle Control Actuator for 4th Position Spools (Handle not included) (See Note 1)
- AJ = Spool Eye Only for Direct Connection
- AK = Spool Eye Only for Direct Connection for 4th Position Spools
- BV = "A" Side Electrohydraulic Control with Stroke Limiter and Connection for Backup Lever (12V Deutsch) (See Notes 1 & 2)

Back-cap Positioners & Controls:

- 01 = 3 Position Spring Return
- 06 = Detent Spool "IN", Spring Spool "OUT"
- 08 = 3 Position Detent
- 12 = 3 Position Spring Return with 4th Position Detent
- 33 = Pneumatic Positioning (On/Off or Proportional)
- 49 = "B" Side Electrohydraulic Shifter (12V Deutsch, DT4) (See Note 2)

Special Features:

X = No Option (Standard)

Work Port Options:

02 = Machined with Steel Plugs (Standard)

Combined Relief & Anti-cavitation Valve Options

RV+AC Set @ 725 PSI (50 BAR) NOT ADJUSTABLE

50 = RV+AC on "A" Port, Set @ 725 PSI (50 BAR)

51 = RV+AC on "B" Port, Set @ 725 PSI (50 BAR)

52 = RV+AC on "A & B" Port, Set @ 725 PSI (50 BAR)

RV+AC Set @ 1,200 PSI (80 BAR) NOT ADJUSTABLE

47 = RV+AC on "A" Port, Set @ 1,200 PSI (80 BAR)

48 = RV+AC on "B" Port, Set @ 1,200 PSI (80 BAR)

49 = RV+AC on "A & B" Port, Set @ 1,200 PSI (80 BAR)

RV+AC Set @ 1,900 PSI (130 BAR) NOT ADJUSTABLE

53 = RV+AC on "A" Port, Set @ 1,900 PSI (130 BAR)

54 = RV+AC on "B" Port, Set @ 1,900 PSI (130 BAR)

55 = RV+AC on "A & B" Port, Set @ 1,900 PSI (130 BAR)

Steel Plug to Create P-T for Single-acting Function

56 = Steel Plug on "A" Port for Single-acting Function on "B"

57 = Steel Plug on "B" Port for Single-acting Function on "A"

Port Type

FM = -10 SAE

Notes:

- Standard Handle Kit P/N: VLVH-01-B-180 (Length: 7" (180mm))
- Control "BV" and Back-cap "49" Must Be Used Together

WORK PORT OPTIONS

L125-W33-Z-130

L125 Valve Series

Work Port Option:

W33 = Work Port RV + Anti-Cavitation

WCX = Blanking Plug

Setting Range:

Z = No Range, Used with W33

X = Used with WCX

RV Setting (in Bar):

Standard Settings:

050 = 725 PSI (50 BAR)

080 = 1,200 PSI (80 BAR)

130 = 1,900 PSI (130 BAR)

XXX = No Setting

ORDER EXAMPLE

If you would like to order an assembled valve, you will need to order each item separately. The order in which parts are entered is how the valve will be built from left to right. On the right is an example of a three work section valve order:

Part Number	Qty.	Description
L125-A-QK-J00-25-20-X	1	Inlet with relief valve and LS Relief
L125-ZR-AA-01-FM-02-X	2	Work section 1 and 2
L125-YH-AJ-01-FM-50-X	1	Work section 3
VLVH-01-B-180	2	7.0" (180mm) handle kits for WS 1 and 2
L125-C-ER-1MI-XXX	1	Standard outlet
L125-T03	1	Stud kit for 3 section assembly