

V250 SERIES

DIRECTIONAL CONTROL VALVES



TAKE CONTROL OF YOUR HYDRAULICS

Take control with Muncie Power Products' V250 directional control valve. The V250 is constructed with high grade iron castings and nickel-plated or hard chrome spools for use in high pressure applications and can be configured with many different spool, control and positioner options. The V250 is designed for flow rates up to 75 GPM (280 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
- Hard chrome and 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
- High pressure carry over (power beyond) and closed center options available
- Load-checks are standard on all work sections
- Work port relief valves, anti-cavitation valves, combination relief/anti-cavitation valves and pilot operated relief valves are available for your individual work section protection needs
- Inlet relief valve is standard
- Spools designed for parallel operation
- Versatile design can be configured with different spool, control, positioner, and accessory options
- Work sections are pre-assembled and 100% tested prior to shipping

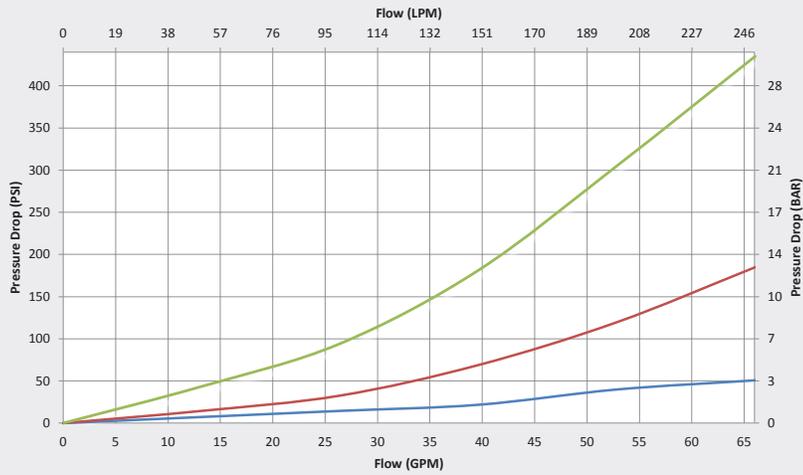
Additional options available, lead times may apply.

TECH SPECS

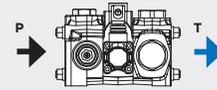
DESIGN TYPE	SECTIONAL
Maximum Work Sections	12
Circuit Types	Open Center Parallel, or Tandem
Flow Capacity	Nominal: 67 GPM (250 LPM) Maximum: 75 GPM (280 LPM)
Maximum Pressure	4000 PSI (275 BAR)
Maximum Back Pressure	290 PSI (20 BAR)
Recommended Filtration	20/18/15 (ISO 4406:1999)
Oil Viscosity Range	60 to 1360 SUS (10 to 300 cSt)
Oil Temperature Range	-20 to 180°F (-29 to 82°C)
Recommended Oil Temperature	85 to 140°F (30 to 60°C)
Approximate Weights (Standard Options)	Inlet: 17.6 lbs (8kg) Outlet: 17.6 lbs (8kg) Work Section: 19.8 lbs (9kg)

PRESSURE DROP CURVES

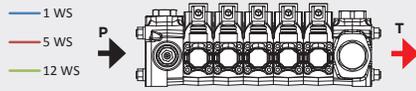
Open Center, Pressure to Tank (P-T)



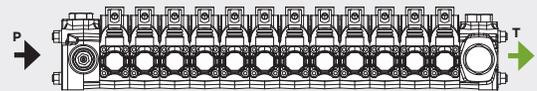
P-T, 1 Work Section



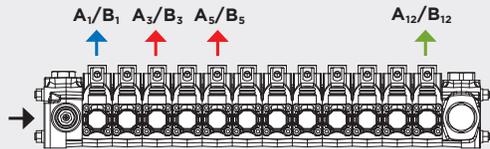
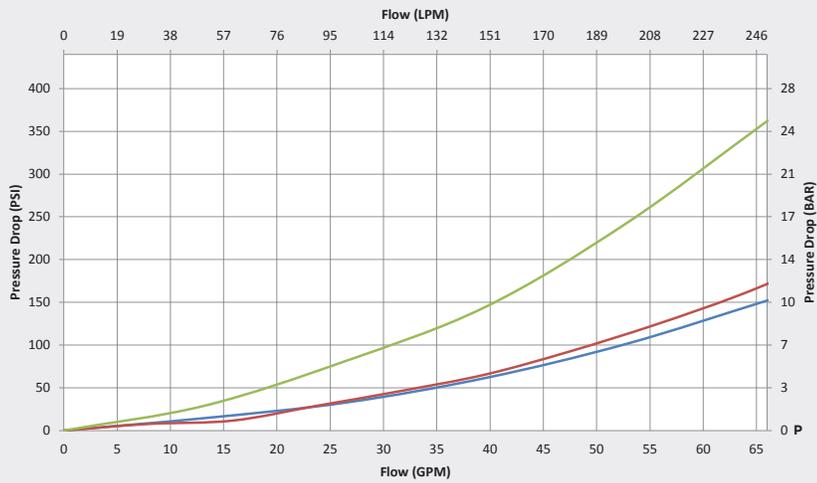
P-T, 5 Work Sections



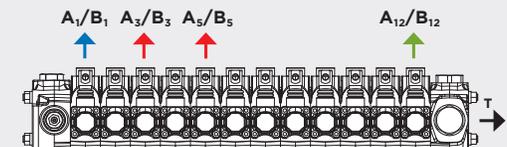
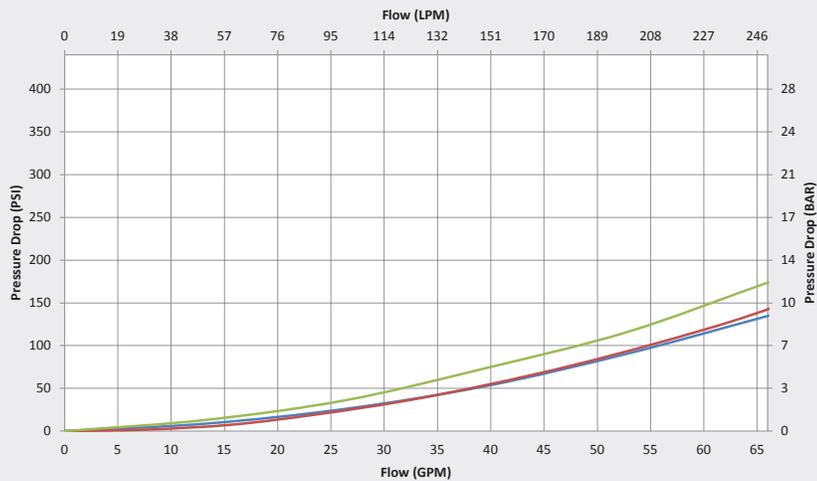
P-T, 12 Work Sections



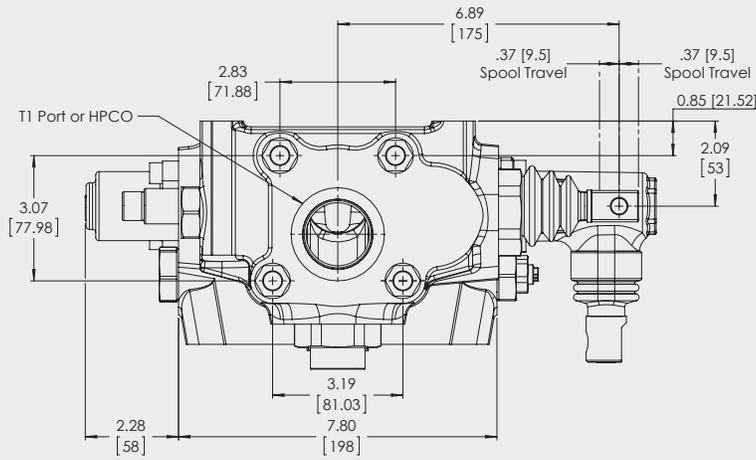
Pressure to Work Ports (P-A_x/B_x)



Work Ports to Tank (A_x/B_x-T)



DIMENSIONS



PORT SIZE AND TYPE:

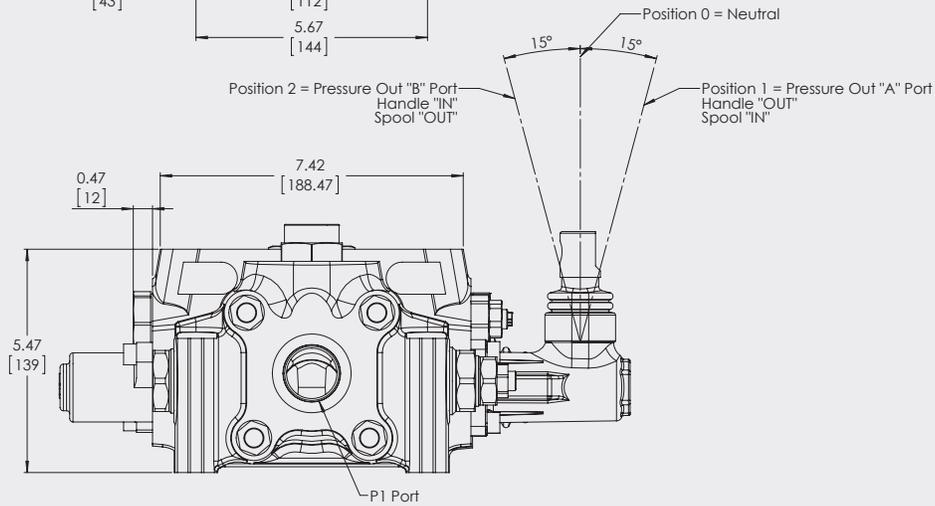
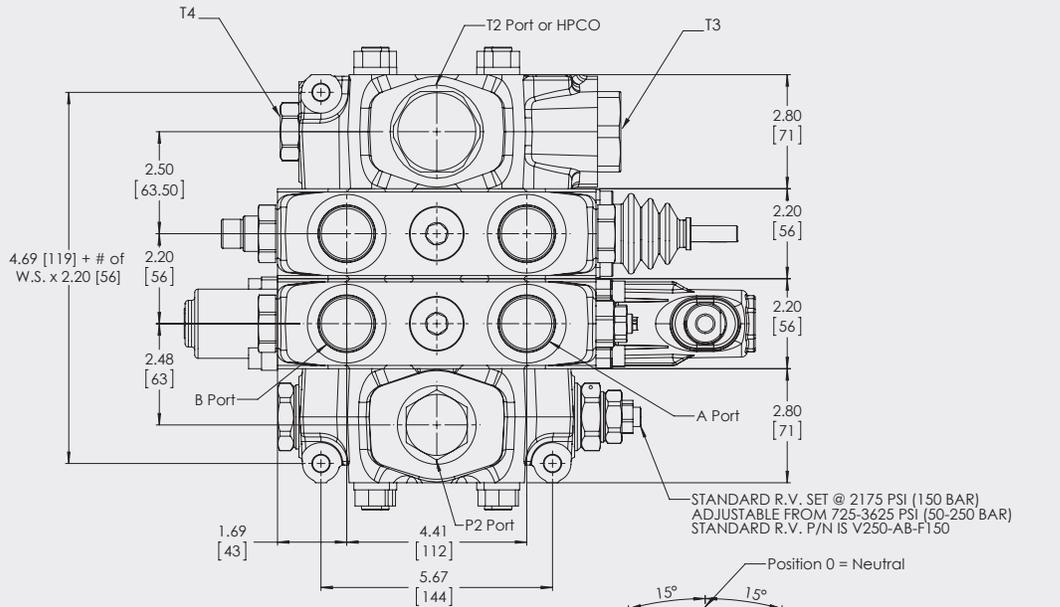
Inlet Ports = -16SAE
 Work Ports = -16SAE
 Outlet Ports = -20SAE

*STANDARD LEVER HANDLE KIT:

P/N: VLVH-01D215
 Length: 8.5" (215mm)

HPCO Kit:

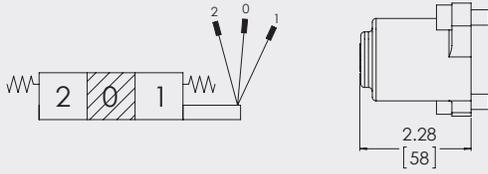
V250-C-PBS-03



BACK CAP OPTIONS

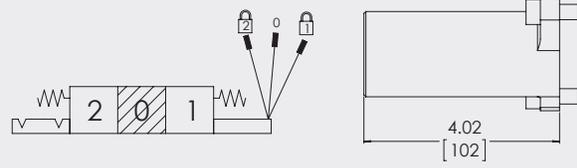
V250-BC-01

STANDARD 3 POSITION, SPRING RETURN



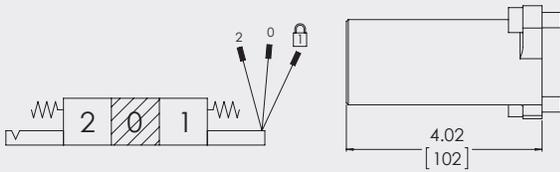
V250-BC-08

3 POSITION DETENT (DETENT IN "A" AND "B" ONLY, SPRING RETURN TO NEUTRAL)



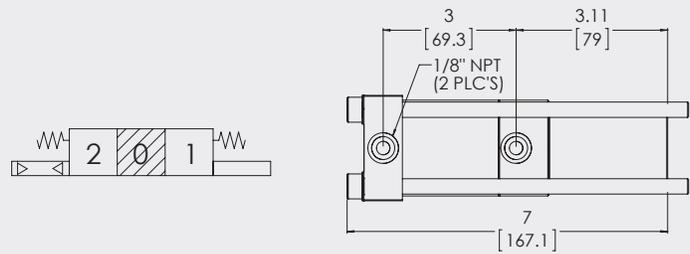
V250-BC-06

DETENT SPOOL "IN", SPRING SPOOL "OUT"



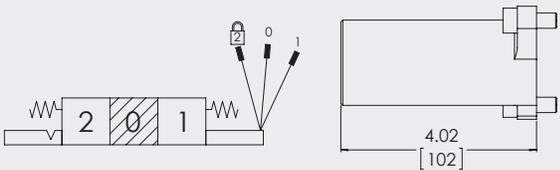
V250-BC-33

PNEUMATIC SHIFT, ON/OFF OR PROPORTIONAL



V250-BC-07

DETENT SPOOL "OUT", SPRING SPOOL "IN"

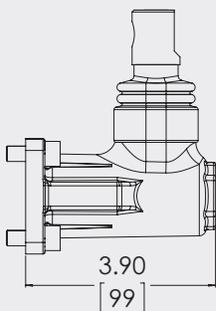


CONTROL OPTIONS

V250-CT-AA*

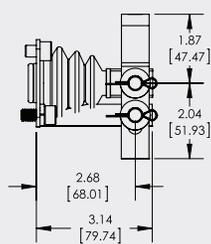
STANDARD LEVER CAP

*(NOTE: HANDLE LEVER NOT INCLUDED)



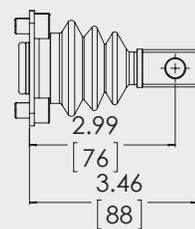
V250-CT-AT

EXPOSED LEVER CAP INCLUDES VLVH-01A-210 HANDLE



V250-CT-AJ

SPOOL EYE ONLY FOR DIRECT CONNECTION



Cable Control Kit:

FVC-HK-121

PIN FOR STANDARD HANDLE: VLVH-01D-215

INLET SECTIONS

V250-A-GI-7SP-F-150

V250 Valve Series

Section Type:

A = Inlet

Port Size & Type:

GI = -16 SAE top and end

Inlet Options:

7SP = Inlet with pilot operated relief valve (standard)

8SX = Inlet without relief valve (plugged)

Relief Valve Setting:

150 = 2,175 PSI (Standard)

Relief Valve Adjustment Range:

F = 725 - 3625 PSI (50 - 250 BAR)

INLET RELIEF VALVES

V250-AB-F-150-P

V250 Valve Series

Section Type:

AB = Use with inlet and mid-section only

Relief Valve Type:

P = Pilot Operated (Standard)

Relief Valve Setting:

150 = 2,175 PSI (Standard)

Relief Valve Adjustment Range:

F = 725 - 3625 PSI (50 - 250 BAR)

OUTLETS

V250-C-GT-3DX-XXX

V250 Valve Series

Section Type:

C = Outlet

Port Size & Type:

GT = -20 SAE top and end

Additional Outlet Options:

XXX = No options

Outlet Type:

3DX = Standard outlet

6DX = Outlet with power beyond

HPCO (Power Beyond) Kit: V250-C-PBS-03

MODEL NUMBER CONSTRUCTION

WORK SECTIONS

V250-AB-AA-01 GI-02-X

V250 Valve Series

Spool Type:

- AB = 3P3W, Single acting cylinder, pressure out B port
- AC = 3P4W, double acting cylinder
- AJ = 3P4W, bi-rotational motor

Control Type:

- AA = Handle control actuator (handle not included)*
- AJ = Spool eye only for direct connection
- AT = Exposed Lever Cap

Back-cap Positioners & Controls:

- 00 = No positioner, use with BG control type
- 01 = 3 position, spring return
- 06 = Detent spool IN, spring spool OUT
- 07 = Detent spool OUT, spring spool IN
- 08 = 3 position detent
- 33 = Pneumatic positioning (on/off or proportional)**

* Handle kit to be ordered separately

Standard handle kit P/N: VLVH-01D-215

Length: 8.25" (215mm)

** Option "33" recommended control

type is "AA" other options are "AJ" or "AE"

Special Features:

X = No option (standard)

Work Port Options:

02 = Machined w/steel plugs (standard)

**RV or RV + AC Set @ 1,000 PSI (70 BAR)
adjustable from 870-1,450 PSI (60-100 BAR)**

03 = RV on A port, set at 1,000 PSI (70 BAR)

04 = RV on B port, set at 1,000 PSI (70 BAR)

05 = RV on A & B port, set at 1,000 PSI (70 BAR)

08 = RV+AC on A & B port, set at 1,000 PSI (70 BAR)

**RV or RV + AC Set @ 1,800 PSI (125 BAR)
adjustable from 1,465-2,320 PSI (101-160 BAR)**

14 = RV on A port, set at 1,800 PSI (125 BAR)

15 = RV on B port, set at 1,800 PSI (125 BAR)

16 = RV on A & B port, set at 1,800 PSI (125 BAR)

19 = RV + AC on A & B port, set at 1,800 PSI (125 BAR)

Anti-Cavitation Valves

11 = Anti-cav on A port

12 = Anti-cav on B port

13 = Anti-cav on A & B port

Note: Additional port accessory valve options available on request, lead times may apply)

Port Type

GI = -16SAE

CABLE CONTROL KIT PART NUMBER: RVC-HK-121

STUD KITS

V250-T-01

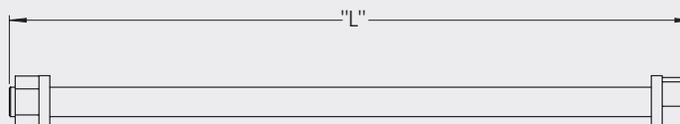
V250 Valve Series

T = Tie Rod

Number of Work Sections

01-07 (1-7 Work Sections)
08-12, 8-12 Work Sections,
Call for availability)

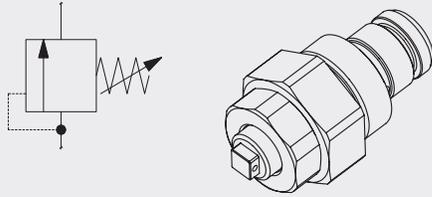
No. of Work Sections	1	2	3	4	5	6	7	8	9	10	11	12
"L" (in/mm)	9.13 / 232	11.34 / 288	13.54 / 344	15.75 / 400	17.95 / 456	20.16 / 512	22.36 / 568	24.57 / 624	26.77 / 680	28.98 / 736	31.18 / 792	33.39 / 848



Note: M12 thread, both ends (12mm diameter tie rod)

WORK PORT OPTIONS

W30 -RELIEF VALVE



W33 -R.V. + ANTI-CAV VALVE

(Pilot Operated Anti-Cav)

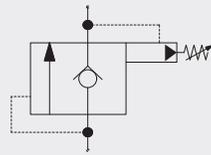


IMAGE
CURRENTLY
UNAVAILABLE

W04 -ANTI-CAV VALVE

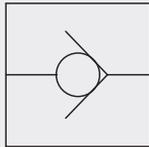
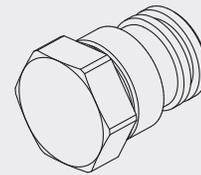
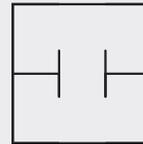


IMAGE
CURRENTLY
UNAVAILABLE

WCX -STEEL PLUG



V250-W30-K-120

V250 Valve Series

Work Port Option:

W30 = Work Port RV

W33 = Work Port RV + Anti-Cav

W04 = Work Port Anti-Cav Only

WCX = Blanking Plug

Relief Valve Setting (in BAR):

Use "XXX" for anti-cav & plug options

Setting Range:

J = Adjustable from 870-1450PSI (60-100BAR)

K = Adjustable from 1465-2320PSI (101-160BAR)

L = Adjustable from 2335-3625PSI (161-250BAR)

F = Adjustable from 725-4,000 PSI (50-275 BAR)

Only available for W33

X = No Setting (Use w/ W04 or WCX)

Available Work Port Accessory Options:

V250-W30-J070

V250-W30-K125

V250-W30-L170

V250-W33-F135

V25-W33-F170

V250-WCX-XXX

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 3 work section valve order:

PART NUMBR	QTY.	DESCRIPTION
V250-A-GI-7SX-F150	1	Inlet with relief valve
V250-AJ-AA-01-GI-02-X	2	Work section 1 & 2
V250-AC-AJ-01-GI-05-X	1	Work section 3
VLVH-01D-215	2	8.25" (215mm) handle kits for WS 1 & 2
V250-C-GT-3DX-XXX	1	Standard outlet
V250-T03	1	Stud kit for 3 section assembly

