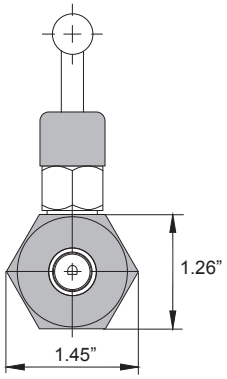
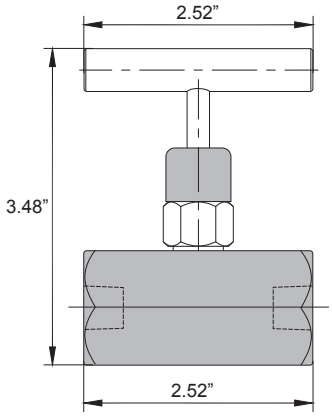
Flow Control Valves

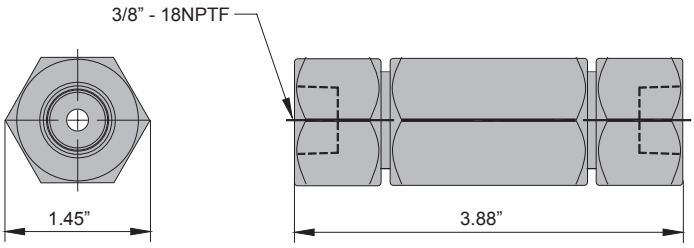
10,000 PSI Rated

CVN1 and CVN3

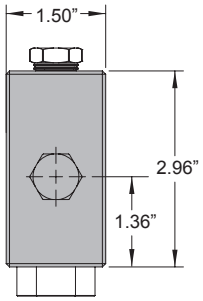


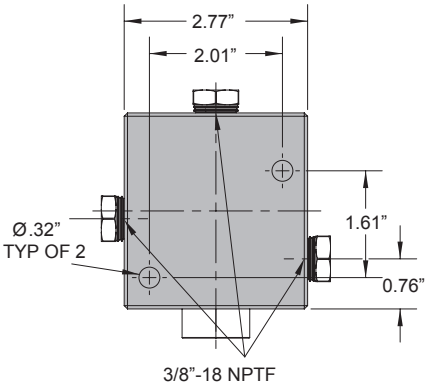


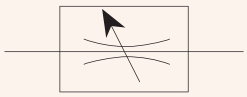
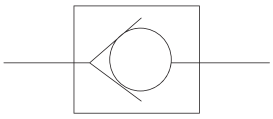
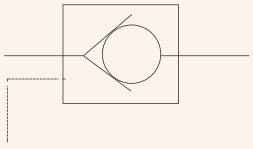
CVC3



CVP3



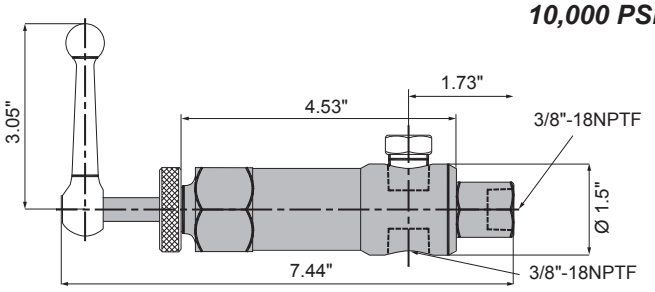


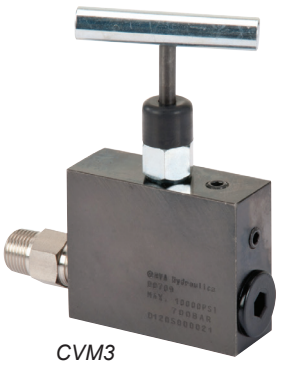
Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Needle Valve	CVN1	¼"-18NPTF	Controls cylinder speed and acts as temporary shut-off valve for load holding.	
	CVN3	⅜"-18NPTF		
Check Valve	CVC3	⅜"-18NPTF	Allows flow in one direction only.	
Pilot Operated Check Valve	CVP3	⅜"-18NPTF	Mounted in line to a cylinder which will hold pressure in the event of pressure loss in the system. Most often used on double-acting cylinders with pilot port, receiving pressure from a tee off of the cylinder retracting line. Pilot pressure ratio 15% or 6.5:1	

Flow Control Valves

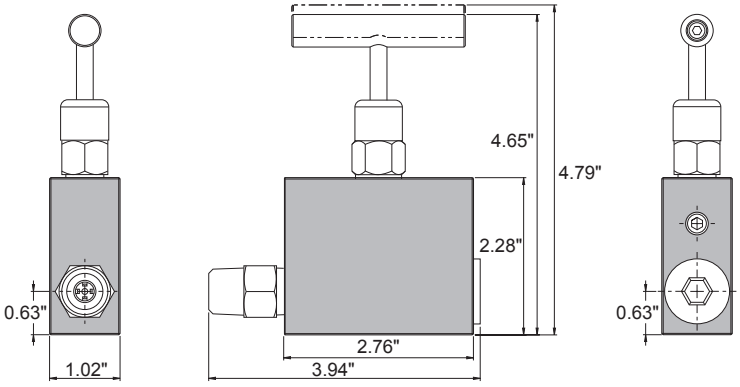
10,000 PSI Rated

CVR3

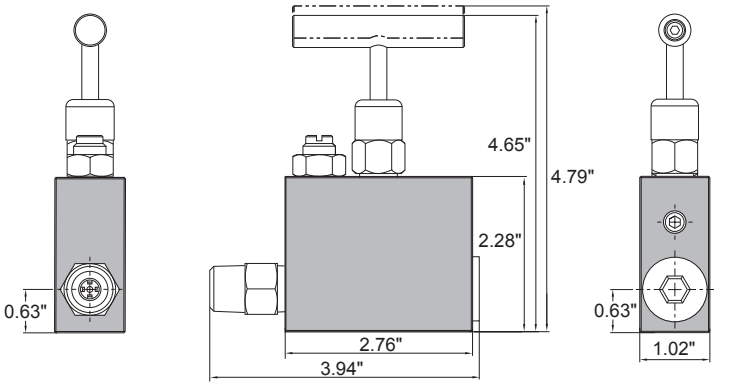


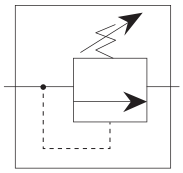
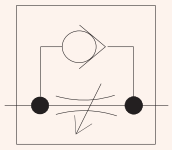
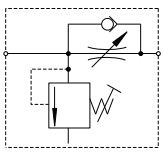


CVM3



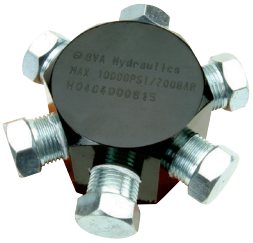
CVMS3



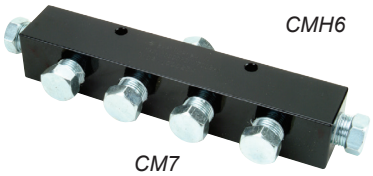
Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Pressure Relief Valve	CVR3	⅜"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurs when preset pressure reaches 0-10,000 PSI. Turns clockwise to increase pressure, counter-clockwise to decrease.	
Manual Operated Check Valve	CVM3	⅜"-18NPTF	Mounted in line to a cylinder and will hold pressure in the cylinder in the event of pressure loss in the system. Pressure is manually released.	
	CVMS3	⅜"-18NPTF	Mounted in line to a cylinder and will hold pressure in the cylinder in the event of pressure loss in the system. This model is equipped with high-pressure bypass. Pressure is manually released.	

Manifolds

10,000 PSI Rated



CMH6

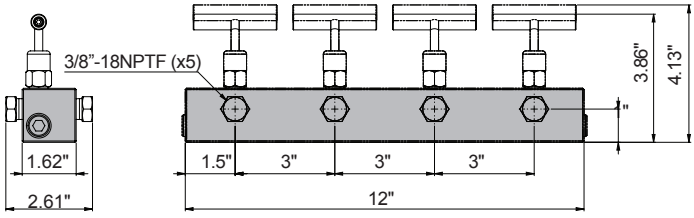


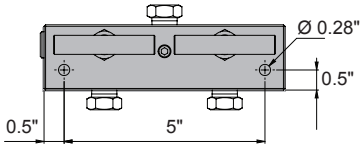
CM7

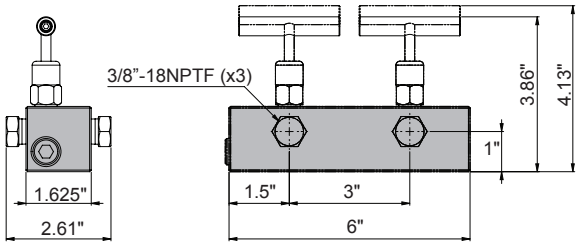
CM14

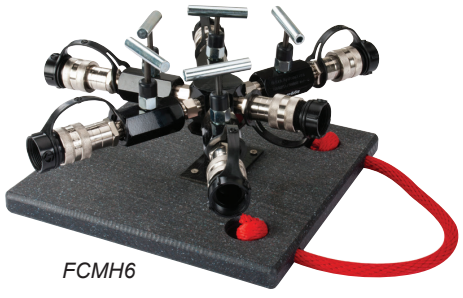
MFC4

MFC2









FCMH6

FCMH6

- Controls the flow of (5) hydraulic hoses from one central location
- Sturdy design for long product life
- Convenient carry handle

Manifold Type	Model Number	Number of Ports	Port Size	Mounting Holes
6-Port Hexagon Manifold	CMH6	6	⅜"-18NPTF	¼"-20UNC
7" Long Manifold	CM7	7	⅜"-18NPTF	¼"-20UNC
14" Long Manifold	CM14	7	⅜"-18NPTF	¼"-20UNC
Manifold with Two Needle Valves	MFC2	3	⅜"-18NPTF	0.28" Dia.
Manifold with Four Needle Valves	MFC4	5	⅜"-18NPTF	0.28" Dia.
Spider Valves	FCMH6	6	⅜"-18NPTF	-

1-888-332-6419
www.BVAhydraulics.com

Hydraulic Pressure Gauge

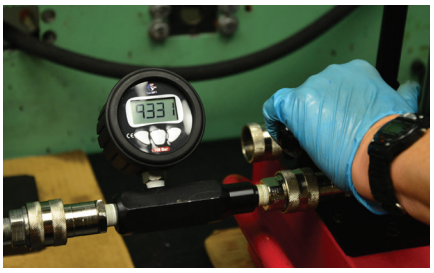
Digital or Analog

GW4014

GW2514

GD2514

GE2514

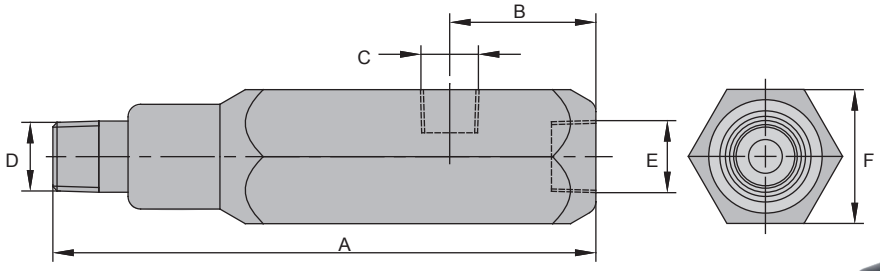


▲ *GE2514 Back-Lit digital pressure gauge displays in: PSI, BAR, KG/CM2 and MPa*

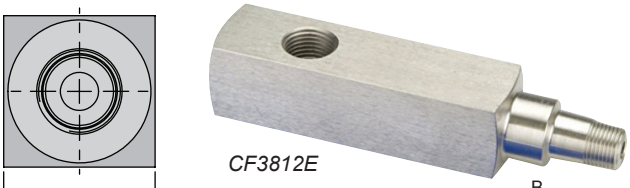
Gauge Type	Model Number	Certified Gauge	Face Dia. (in)	Thread (in)	Material	Pressure Range		Graduation			
						(psi)	(bar)	Major Graduation (psi)	Minor Graduation (psi)	Major Graduation (bar)	Minor Graduation (bar)
Digital	GE2514	-	2.50	1/4"-18 NPTF	Stainless	0 - 10,000	0 - 700	-	-	-	-
Dry	GD2514	-	2.50	1/4"-18 NPTF	Brass	0 - 15,000	0 - 1,034	2,000	200	100	20
	GD4014	-	4.00	1/4"-18 NPTF	Brass	0 - 15,000	0 - 1,034	2,000	200	100	20
	GD2512	-	2.50	1/2"-14 NPTF	Brass	0 - 10,000	0 - 700	2,000	200	100	20
	GD4012	-	4.00	1/2"-14 NPTF	Brass	0 - 10,000	0 - 700	2,000	200	100	20
Wet	GW2514	-	2.50	1/4"-18 NPTF	Brass	0 - 15,000	0 - 1,034	2,000	200	100	20
	GW4014	-	4.00	1/4"-18 NPTF	Brass	0 - 15,000	0 - 1,034	2,000	200	100	20
	GW4014-CERT	yes	4.00	1/4"-18 NPTF	Stainless	0 - 20,000	0 - 1,379	2,000	200	100	20
	GW2512	-	2.50	1/2"-14 NPTF	Brass	0 - 10,000	0 - 700	2,000	200	100	20
	GW4012	-	4.00	1/2"-14 NPTF	Brass	0 - 10,000	0 - 700	2,000	200	100	20

Gauge Adapter

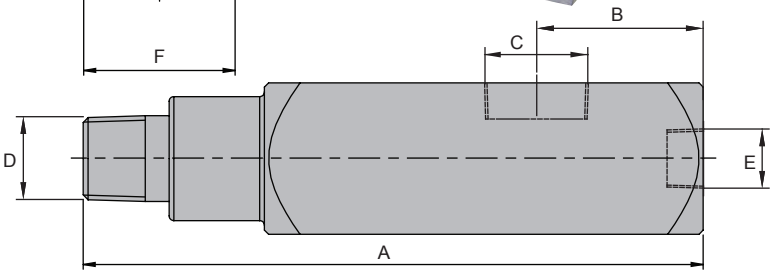
10,000 PSI Rated



CF3814



CF3812E



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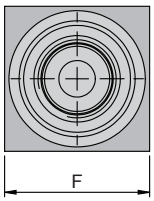
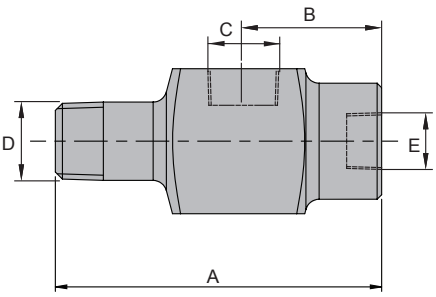




Model Number	Dimensions (in)					
	A	B	C	D	E	F
CF3814	5.12	1.38	¼"-18NPTF	⅜"-18NPTF	⅜"-18NPTF	1.25
CF3812	2.81	1.38	½"-14NPTF	⅜"-18NPTF	⅜"-18NPTF	1.25
CF3812E	6.10	1.38	½"-14NPTF	⅜"-18NPTF	⅜"-18NPTF	1.25

Hydraulic Oil

ISO 46

- Recommended for all BVA cylinders and pumps

Volume (gal)	Model Number	Viscosity Index (min)	Viscosity @ 100°F (S.U.S.)	Viscosity @ 210°F (S.U.S.)	ASTM Grade	Flash Point (°F)	Pour Point (°F)	API Gravity
1	F01	144	234	53	215	356	-49	30.8
55	F55	144	234	53	215	356	-49	30.8

F01

Coupler Dust Cover

- Keeps contaminants out of the system

Model Number	Coupler Compatibility
CDC38	CH38, CH38F, CH38M

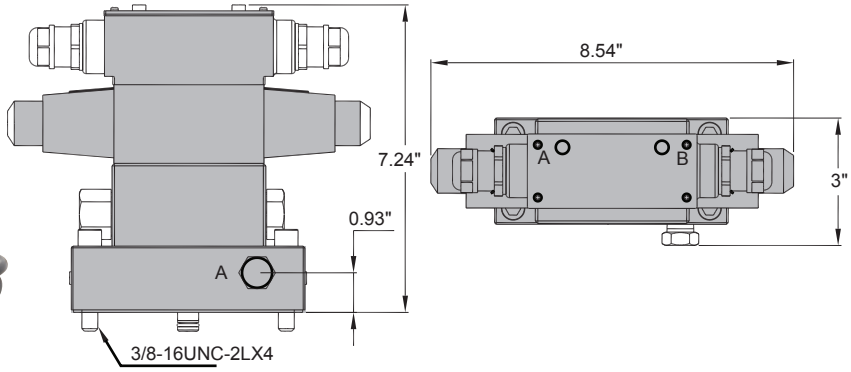
CDC38

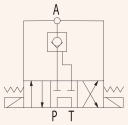
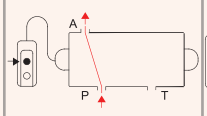
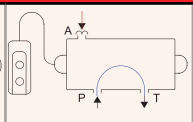
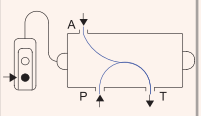
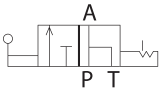
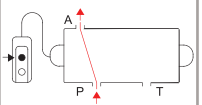
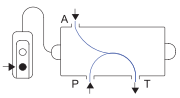
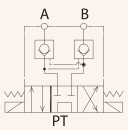
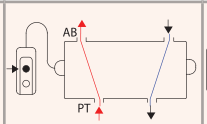
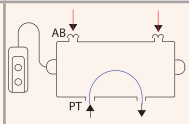
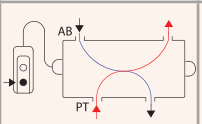
Solenoid Valves

Pump Mounted

- Pump mounted solenoid kits converts your manual pump to an electrically controlled pump.

PS33L

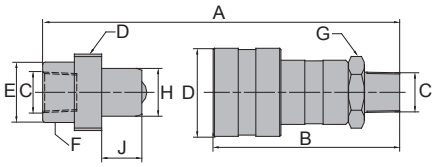


Use With Cylinder	Model Number	Valve Type	Valve Function	Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Single Acting	PS33L	Solenoid 115VAC	Advance/ Hold/Re-turn					7.0
Single Acting	PD33	Solenoid 115VAC	Advance/ / Return				-	6.0
Double Acting	PS43L	Solenoid 115VAC	Advance/ Hold/Re-turn					7.0

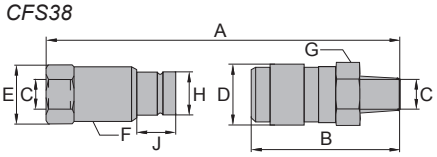
Hydraulic Couplers

10,000 PSI Rated

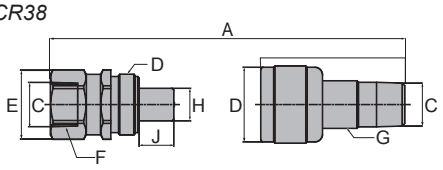
CH38



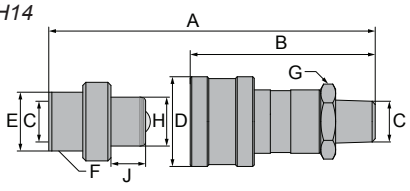
CFS38



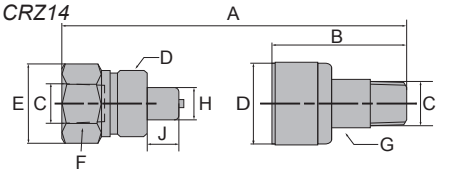
CR38



CH14



CRZ14

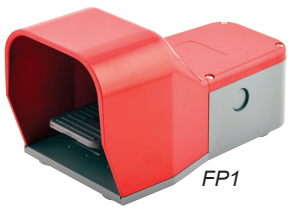


Coupler Type	Model Numbers			Dimensions (in)								
	Complete Set	Male Half	Female Half	A*	B	C	D	E	F	G	H	J
High-Flow Coupler	CH38	CH38M	CH38F	3.35	2.84	3/8"-18NPTF	1.10	-	1.00	0.75	0.63	0.63
Flush-Face Coupler	CFS38	CFS38M	CFS38F	4.36	2.85	3/8"-18NPTF	1.21	1.06	1.12	0.79	0.63	0.63
Regular-Flow Coupler	CR38	CR38M	CR38F	3.15	2.20	3/8"-18NPTF	1.04	-	0.73	0.50	0.53	0.53
High-Flow Coupler	CH14	CH14M	CH14F	2.83	2.35	1/4"-18NPTF	0.87	-	0.83	0.62	0.41	
Zinc Coupler	CRZ14	CRZ14M	CRZ14F	2.42	1.67	1/4"-18NPTF	0.95	0.83	0.58	0.39	0.35	0.35

** Value A is total length when male and female couplers are connected.*

Foot Pedals

Single or Double



FP1

FP2

- Hands free pump operation
- Can be used with all pumps equipped with solenoid valves

Foot controls with 10' cord. This option replaces the hand controls on solenoid equipped models.

Wireless Hand Held Control

WR12K

- Allows for increased mobility and safety
- Nominal range of 325 feet (greater w/ unobstructed line of sight)
- Batteries last 100 hours with continuous key press (2 AAA batteries)
- For hands free pump operation
- Contact your local BVA dealer for further information

External Pressure Adjustment

Sandwich Mounted

Model Number	Pressure Adj. Range (psi)	Interval (psi)	Suitable Model
PW-AS1	1,000 ~ 10,000	50	PE Series, 1 Gal. Reservoir
PW-AS2			PE Series, 2+ Gal. Reservoir
PW-AS3			PU20 Series Pump
PW-AS4			PU20DMP Series

PW-AS1

- Pressure can be adjusted externally (1,000-10,000 psi)
- Works with single and double acting cylinders

CMR2

Pump Mounted Manifold Block

CMR2

- Converts BVA pumps with mounted valves for use with remote mounted valves
- Comes with 4 mounting bolts

Pressure Switch

CVS1

- Automatically shuts off electric pump when predetermined system pressure is reached

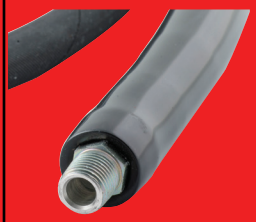
CVS1

Model Number	Adjustable Pressure Range	Electrical Rating	Port Size	Weight (lbs)
CVS1	1,000~10,150 psi	15 amp @ 250V max	¼"-18NPTF	1.32

Hydraulic Hoses

Rubber or Thermoplastic

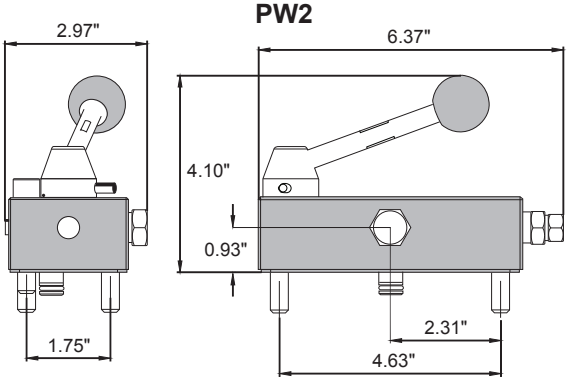
- All hoses are designed with a Maximum Working Pressure of 10,000 psi
- Heavy Duty Rubber Hoses are made with 2 layers of steel braids and comply with the Material Handling Institutes IJ-100 standard for hoses and carries a 2:1 safety factor
- Thermoplastic Hoses are made with 2 layers of steel braids with wrapped in a Polyurethane jacket and carries a 4:1 safety factor

Hose ID (in)	Hose Length (ft)	Hose End 1	Hose End 2							
			 1/4"-18 NPTF		3/8"-18 NPTF		CR38M Coupler		CH38M Coupler	
			Rubber Model Number	Thermoplastic Model Number	Rubber Model Number	Thermoplastic Model Number	Rubber Model Number	Thermoplastic Model Number	Rubber Model Number	Thermoplastic Model Number
¼"	6	¼"-18 NPTF	CS1414	CT1414	-	-	-	-	CS1414M	CT1414M
	2	⅜"-18 NPTF	-	-	CS3814A	-	CS3814AMR	-	CS3814AM	-
	3	⅜"-18 NPTF	-	-	CS3814B	CT3814B	CS3814BRM	-	CS3814BM	-
	6	⅜"-18 NPTF	-	-	CS3814	CT3814	CS3814MR	-	CS3814M	CT3814M
	10	⅜"-18 NPTF	-	-	CS3814C	CT3814C	CS3814CRM	-	CS3814CM	CT3814CM
	20	⅜"-18 NPTF	-	-	CS3814D	CT3814D	CS3814DRM	-	CS3814DM	CT3814DM
	30	⅜"-18 NPTF	-	-	CS3814G	CT3814E	-	-	CS3814GM	CT3814EM
⅜"	6	⅜"-18 NPTF	-	-	CS3838	CT3838	CS3838MR	-	CS3838M	CT3838M
	10	⅜"-18 NPTF	-	-	CS3838C	CT3838C	-	-	CS3838CM	CT3838CM
	20	⅜"-18 NPTF	-	-	CS3838D	CT3838D	-	-	CS3838DM	CT3838DM
	30	⅜"-18 NPTF	-	-	CS3838E	CT3838E	-	-	CS3838EM	CT3838EM
	50	⅜"-18 NPTF	-	-	CS3838F	CT3838F	-	-	CS3838FM	CT3838FM

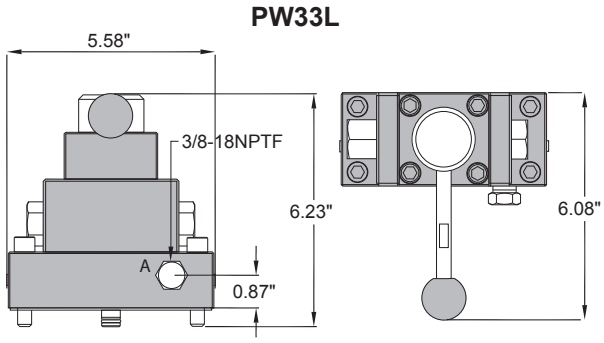
Pump Mounted Valves

For PE, PG and PD Pumps Only

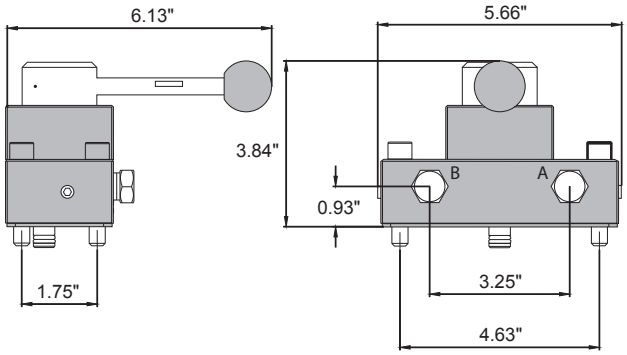
PW2



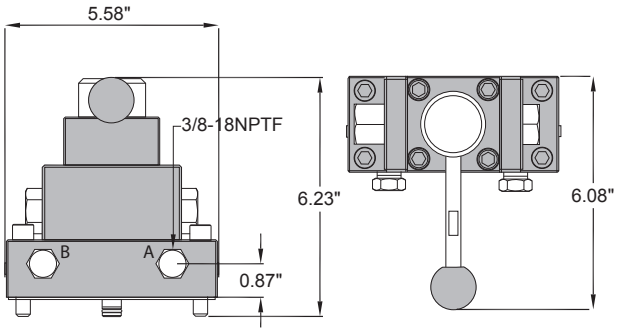
PW33L

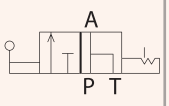
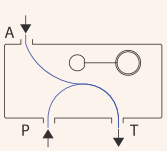
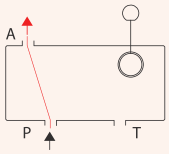
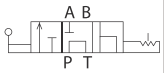
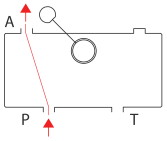
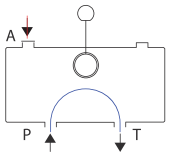
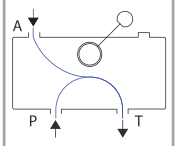
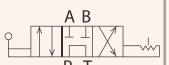
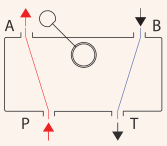
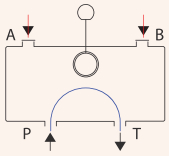
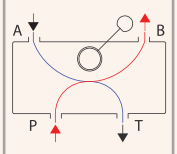
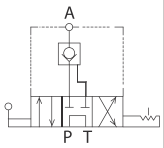
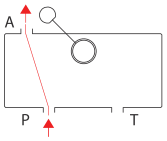
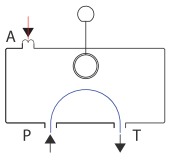
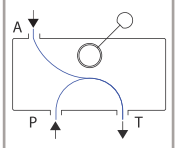
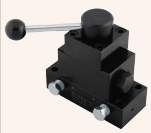
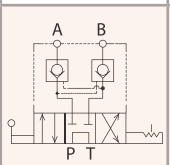
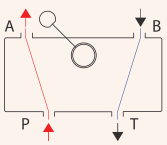
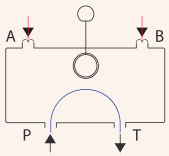
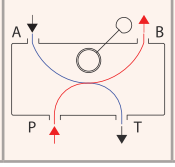


PW3 and PW4



PW43L

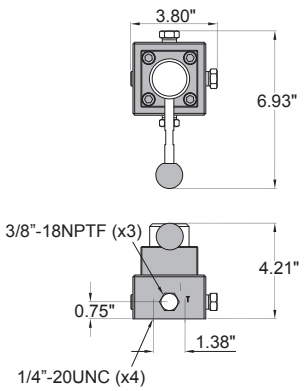


Valve Operation	Valve Type	Use w/ Cylinder	Model Number		Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Manual	3-Way, 2-Position	Single Acting	PW2					-	4
	3-way, 3-Position, Tandem center	Single Acting	PW3						4
	4-Way, 3-Position, Tandem center	Double Acting	PW4						3
	3-Way, 3-Position, Tandem center, Locking	Single Acting	PW33L						6
	4-Way, 3-Position, Tandem center, Locking	Double Acting	PW43L						6

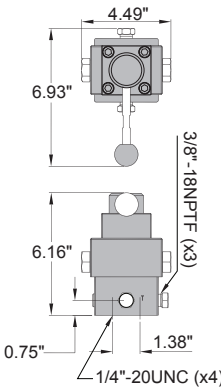
Remote Mounted Directional Control Valves

Not to be used with Hand Pumps

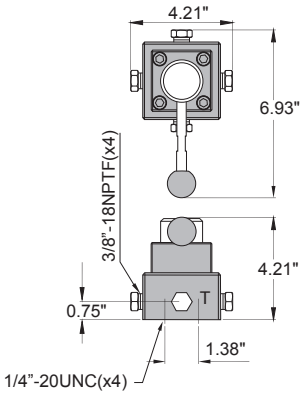
PR33, PR33C



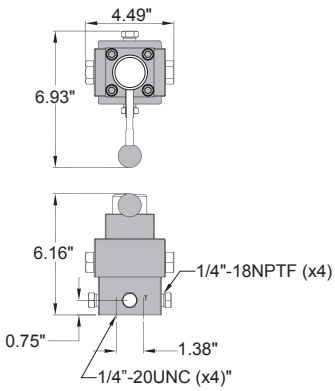
PR33L , PR33CL

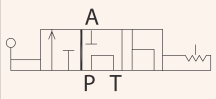
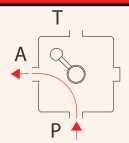
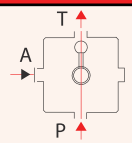
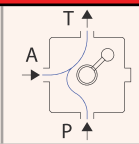
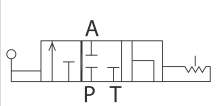
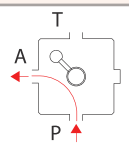
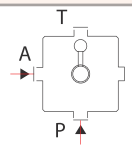
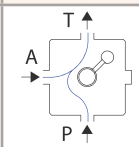
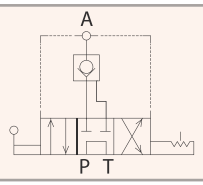
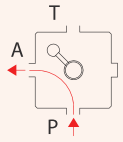
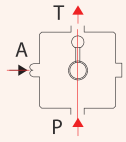
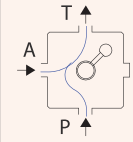
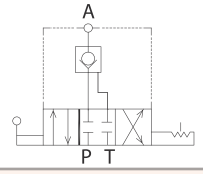
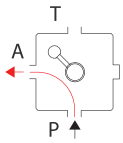
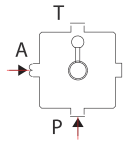
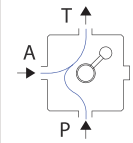
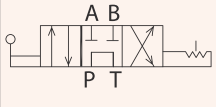
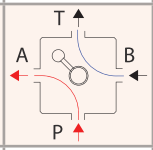
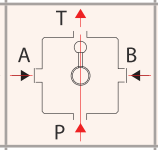
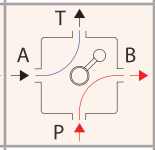
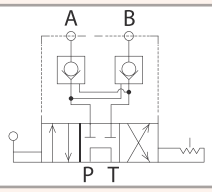
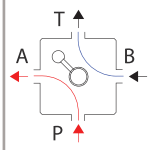
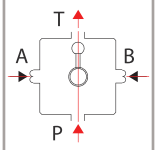
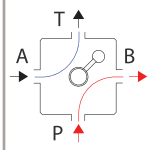
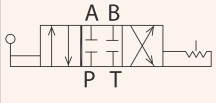
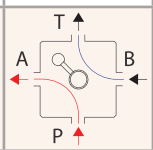
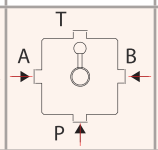
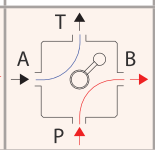
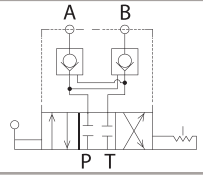
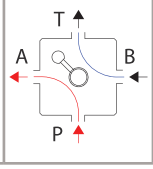
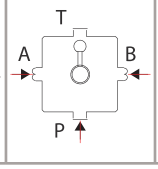
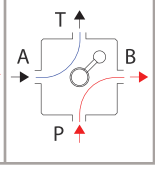


PR43, PR43C



PR43CL

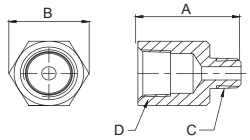
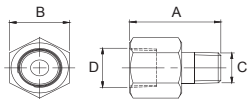
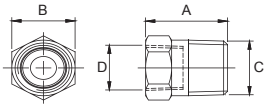
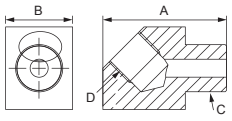
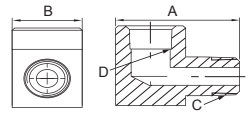
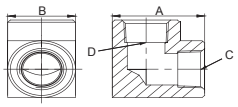
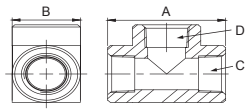
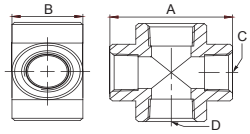
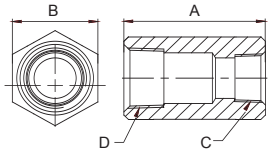
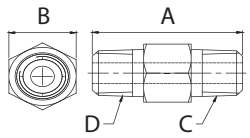


Valve Operation	Valve Type	Use w/ Cylinder	Model Number		Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Manual	3-Way, 3 Position, Tandem center	Single Acting	PR33						3.5
	3-Way, 3 Position, Closed center		PR33C						3.5
	3-Way, 3 Position, Tandem center, Locking		PR33L						5.7
	3-Way, 3 Position, Closed center, Locking		PR33CL						5.7
	4-Way, 3 Position, Tandem center	Double Acting	PR43						3.5
	4-Way, 3 Position, Tandem center, Locking		PR43L						5.7
	4-Way, 3 Position, Closed center		PR43C						3.5
	4-Way, 3 Position, Closed center, Locking		PR43CL						5.7

All valves have a detent in the center position.

Fittings

10,000 PSI Rated

Fitting Type		Model Number	Dimensions				Display Image
			A (in)	B (in)	C	D	
Adapters							
	Adapter ½″-14NPTF - Female ⅜″-18NPTF - Male	FT108	1.69	1.14	Male ⅜″-18NPTF	Female ½″-14NPTF	
	Adapter ½″-14NPTF - Female ¼″-18NPTF - Male	FT118	1.69	1.14	Male ¼″-18NPTF	Female ½″-14NPTF	
	Fitting	CA3814	1.38	0.91	Male ¼″-18NPTF	Female ⅜″-18NPTF	
Bushings/Connectors							
	Bushing	CB1438	0.87	0.67	Male ⅜″-18NPTF	Female ¼″-18NPTF	
	Bushing	CB1412	1.10	0.87	Male ½″-14NPTF	Female ¼″-18NPTF	
	Bushing	CB3812	1.10	0.87	Male ½″-14NPTF	Female ⅜″-18NPTF	
	2 way 45° Connector Street Elbow, ⅜″ to ⅜″-NPTF	FT045	1.89	1.02	Male ⅜″-18NPTF	Female ⅜″-18NPTF	
	2 way 90° Connector Street Elbow, ⅜″ to ⅜″-NPTF	FT101	1.81	1.02	Male ⅜″-18NPTF	Female ⅜″-18NPTF	
	2 way 90° Connector Elbow, ⅜″ to ⅜″ - NPTF	FT107	1.40	1.02	Female ⅜″-18NPTF	Female ⅜″-18NPTF	
	3 Way Connector ⅜″ to ⅜″ - NPTF	FT106	1.77	1.02	Female ⅜″-18NPTF	Female ⅜″-18NPTF	
	4 Way Connector Cross, ⅜″ to ⅜″ - NPTF	FT105	1.77	1.02	Female ⅜″-18NPTF	Female ⅜″-18NPTF	
Couplings							
	Coupling Reducing Connector, ⅜″ to ¼″-NPTF	FT102	1.18	1.02	Female ¼″-18NPTF	Female ⅜″-18NPTF	
	Coupling Reducing Connector, ½″ to ⅜″ - NPTF	FT112	1.89	1.14	Female ½″-14NPTF	Female ⅜″-18NPTF	
	Coupling ⅜″ to ⅜″- NPTF	FT103	1.18	1.02	Female ⅜″-18NPTF	Female ⅜″-18NPTF	
Hex Nipples							
	Male Connector Hex Nipple, ¼″ to ¼″ - NPTF	FT104	1.50	0.67	Male ¼″-18NPTF	Male ¼-18NPTF	
	Male Connector Hex Nipple, ⅜″ to ⅜″- NPTF	FT114	1.50	0.75	Male ⅜″-18NPTF	Male ⅜″-18NPTF	
	Male Connector Hex Nipple, ¼″ to ⅜″- NPTF	FT124	1.45	0.75	Male ¼″-18NPTF	Male ⅜″-18NPTF	