HYDRO CUSTOM™

Directional Control Valves

12, 21, & 32 Series Monoblock

- Check valve included to prevent reverse flow
- Power beyond and closed center capable - installs in the "C" port
- See accessories for optional relief cartridges, handles, plugs, and more

Tandem Center - used for double acting cylinders that hold in neutral

Motor Center - used for double acting cylinders to float in neutral or birotational motors that will free wheel in neutral (A & B ports open to tank in neutral)

Float Position - when in the float detent, work ports are open to tank to allow cylinder to "float"

12 Series - 12 GPM

- 12 GPM rating - 2900 PSI
- Inlet/outlet port: SAE 8
- Work port: SAE 8
- Mono-block valve featuring cast iron construction
- Check valve included to prevent reverse flow
- Stock adjustable relief from 900-2900 PSI
- Relief cartridges available for 580-1150 PSI or 2300-4600 PSI, adjustable range
- Handles can be rotated 180 degrees

Note: Closed Center and Power Beyond plug used in C port

Part No.	No. Of Spools	Spool Type	Spool Action	Relief Setting
		12 Series		
228932	1	3-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228952	1	4-way 3 pos. motor center	3-pos. Spring center	1740 PSI
228953	1	4-way 3 pos. motor center	3-pos. detent	1740 PSI
228906	1	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228907	2	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228956	2	4w 4p / 4w 3p tandem center	3-pos. Spring center 4-pos. float	1740 PSI
228910*	2	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228957*	2	4w 4p / 4w 3p tandem center	3-pos. Spring center 4-pos. float	1740 PSI
228959	3	4w 4p / 4w 3p / 4w 3p tandem center	4-pos. float 3-pos. Spring center 3-pos. Spring center	1740 PSI
228908	3	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228909	4	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI
228926	5	4-way 3 pos. tandem center	3-pos. Spring center	1740 PSI

*Loader valve type with joystick - one check valve included to prevent reverse flow

12 Series Accessories	
228119	Power Beyond/Closed Center Conversion plug
228120	Port plug
228121	Standard Lever Handle (12 Series, handle only)
228114	Pos 1 detent, Pos 2 spring center
228107	3 Pos detent
228100	Direct type pressure relief valve, Range 580 to 1150 PSI, standard setting 1150 PSI
228101	Direct type pressure relief valve, Range 900 to 2900 PSI, standard setting 1750 PSI
228102	Direct type pressure relief valve, Range 2300 to 4600 PSI, standard setting 3200 PSI
228103	Relief valve blanking plug
228104	Standard lever box, For type 8 of positioner only (Aluminum made)
228105	Flexible cable connection (M16x1.5)
228106	Joystick lever for 2 section operation
228108	Cable connection with m8 thread for cable and/or lever control
228109	Control kit 1s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 12 GPM
228110	Control kit 2s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 12 GPM
228111	Control kit 3s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 12 GPM
228112	Microswitch kit operated in pos.1&2 (Normally Open microswitch kit operates pos 1 & 2)
228113	3 pos spring to neutral (Aluminum Spring centred cap)
228115	12VDC coil for 8ESN
228116	24VDC coil for 8ESN
228117	12VDC coil for dual control (8ES3)
228118	24VDC coil for dual control (8ES3)
471508	SAE 8 Plug - For Power Beyond "C Port" when not being used.

21 Series - 21 GPM

- 21 GPM rating - 2900 PSI
- Inlet/outlet port: SAE 12
- Work port: SAE 10
- Mono-block valve featuring cast iron construction
- Check valve included to prevent reverse flow
- Stock adjustable relief from 1800-3600 PSI
- Relief cartridges available for 1150-2300 PSI or 2900-4600 PSI, adjustable ranges

Part No.	No. Of Spools	Spool Type	Spool Action	Relief Setting
		21 Series		
228954	1	4-way 3 pos. motor center	3-pos. Spring center	2500 PSI
228994	1	4-way 3-pos. tandem center	3-pos. Spring center	2500 PSI
228955	1	4-way 3 pos. motor center	3-pos. detent	2500 PSI
228900	2	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228905*	2	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228901	3	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228902	4	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228903	5	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228904	6	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI

*Loader valve type with joystick - one check valve included to prevent reverse flow

21 Series Accessories	
228215	Power Beyond/Closed Center Conversion sleeve
228216	Port plug
228217	3 pos detent
228122	Standard Lever Handle (21 and 32 Series, handle only)
228306	Detent in pos 1 & 2 with spring return
228200	Direct type pressure relief valve, Range 1150 to 2300 PSI, standard setting 1800 PSI
228201	Direct type pressure relief valve, Range 1800 to 3600 PSI, standard setting 2500 PSI
228202	Direct type pressure relief valve, Range 2900 to 4600 PSI, standard setting 3200 PSI
228203	Pilot operated Relief valve, Range 25 to 315 bar/360 to 4600psi, standard setting 125bar/1800psi, w/o check valve
228204	Relief valve blanking plug
228205	Standard lever box, no handle
228206	Flexible cable connection kit
228207	Joystick
228208	Control kit 1s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 21 GPM
228209	Control kit 2s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 21 GPM
228210	Control kit 3s on/off electro-hydraulic with pilot drain line and backpressure valve 12v dc 21 GPM
228211	Microswitch kit operated in position 1&2 (Normally Open)
228212	With spring return to neutral position
228213	Hydraulic pilot (double ends/set) only suitable for standard spool (I#1&2# spool)
471505	SAE 12 Plug - For Power Beyond "C Port" when not being used.

21 Series - 21 GPM

- 32 GPM rating - 2900 PSI
- Inlet/outlet port: SAE 16
- Work port: SAE 12
- Mono-block valve featuring cast iron construction
- Check valve included to prevent reverse flow
- Stock adjustable relief from 1800-3600 PSI
- Relief cartridges available for 1150-2300 PSI or 360-4600 PSI, adjustable ranges

Part No.	No. Of Spools	Spool Type	Spool Action	Relief Setting
		32 Series		
228935	1	4-way 3 pos. motor center	3-pos. Spring center	2500 PSI
228929	1	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228930	2	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI
228939	3	4-way 3 pos. tandem center	3-pos. Spring center	2500 PSI

*Loader valve type with joystick - one check valve included to prevent reverse flow

32 Series Accessories	
228308	Power Beyond/Closed Center Conversion sleeve
228309	Port plug
228122	Standard Lever Handle (21 and 32 Series, handle only)
228310	Detent In positions 1-0-2, without spring center
228306	Detent in pos 1 & 2 with spring return
228300	Direct type pressure relief valve, Range 1150-2300 PSI, standard setting 1800 PSI, without check valve
228301	Direct type pressure relief valve, Range 1800-3600 PSI, standard setting 2500 PSI, without check valve
228302	Pilot operated Relief valve, Range 25 to 315 bar/360 to 4600psi, standard setting 125bar/1800psi, w/o check valve
228303	Relief valve blanking plug
228304	Standard lever box, no handle
228305	No detent, spring to center
228307	Hydraulic pilot (double ends/set) only suitable for standard spool
471558	SAE 16 Plug - For Power Beyond "C Port" when not being used.