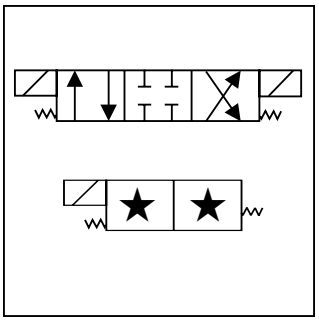
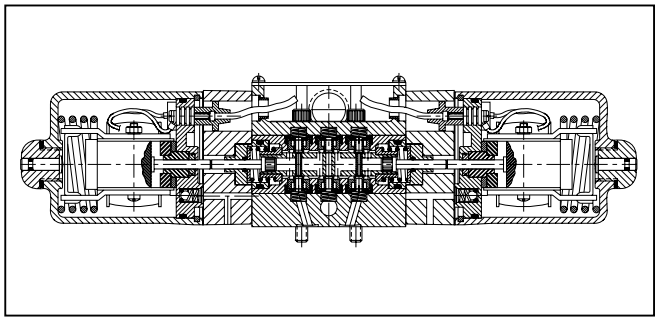
General Description

Series 21100 Exectrol directional control valves are direct solenoid operated 4-way control valves. A slide and balanced seals are used which provides near zero leakage. The valves have a high tolerance to media contamination as each movement of the slide wipes the sealing surfaces clean which in turn results in long service life.



Features

- Shear-type positive seal.
- Zero leakage (8 drops per min. maximum).
- Ideal for water soluble systems (95-5).
- Pressures up to 414 Bar (6000 PSI).
- Long life, easy maintenance.
- Standard valves are interflow.
- No packing to wear or cut.
- High tolerance to contamination.
- High tolerance to silting.
- Manual overides are standard.



Electrical Data		Weight	
Inrush Current	4.2 Amps Maximum	One Solenoid	Two Solenoids
Holding Current	.85 Amps Maximum		
Drop-Out Voltage	Approx. 75% Rated Voltage	9.2 Lbs.	12 Lbs.
Voltage Required to Pull Back After Drop-Out	Approx. 95% Rated Voltage		

Specifications

Service Applications	Hydraulic oil. Water containing minimum of 5% soluble oil. Suggest water soluble oil with a sodium sulphonate-based emulsifier. Oil should have a viscosity of 250-350 SSU at 38°C (100°F). Others available on special order.
Maximum Operating Pressure	Working: 414 Bar (6000 PSI) *Proof: 621 Bar (9000 PSI) *Burst: 1035 Bar (15,000 PSI) *Applicable to pressure and cylinder ports only Note: Installation of this valve should ensure that exhaust port pressure does not exceed cylinder port pressures by more than 3.5 Bar (50 PSI) and never exceed 69 Bar (1000 PSI)
Flow	11.4 LPM (3 GPM) rated maximum
CV Factor	0.28

Internal Leakage	8 drops per min. maximum
Mounting	Subplate. Mounting bolts furnished
Material	Cover, Body, Bottom Plate, Inserts, Washers, Spring Retainer, Screws, Retainer Plate: Steel Name Plate, End Cap, Retainer Plate: Aluminum alloy, anodized Slide, Seals, Springs, Pilot Choke Plug: Stainless Steel O-rings: Synthetic rubber
Operating Temperature	-40°C to +107°C (-40°F to +225°F) (with Code 02 O-rings)

Ordering Information

211 — Catalog Number
- 211 — 3 GPM

04 — Flow Pattern
- 04
- 05
- 07
- 09
- 10

-73 — Power Source
- 56 — 24V/D.C.
- 70 — Air - Oil Operator
- 73 — 115V/60C A.C.

01 — Operating Type
- 01 = 3-Position, Spring Centered, Flow Patterns 1-9, Double Solenoid or Air-Oil Operated
- 02 = 2-Position, Spring Offset, Flow Pattern 10, A Operated
- 03 = 2-Position, Spring Offset, Flow Pattern 10, B Operated
- 04 = 2-Position, Detented, Flow Pattern 10, Double Solenoid or Air-Oil Operated
- 11 = 2-Position, Centered Offset, Left & Center Positions of Flow Patterns 1-9, A Operated
- 21 = 2-Position, Centered Offset, Right & Center Positions of Flow Patterns 1-9, B Operated

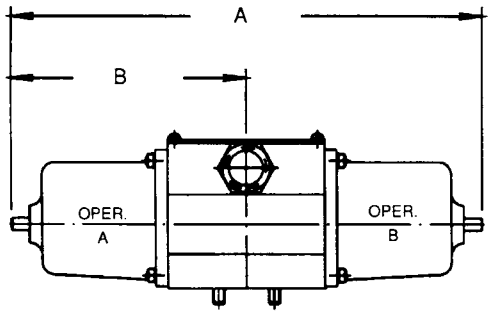
-02 — O-Ring Code
- 02 — Commercial Nitrile
- 28 — Fluorocarbon A
- 52 — EPR

00 — Optional Features
- 00 — No Options
- 02 — Pilot Speed Control Valve

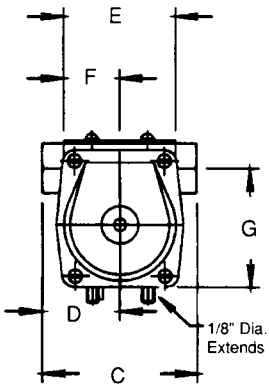
Note:
Do not use these valves in series or tandem circuits.

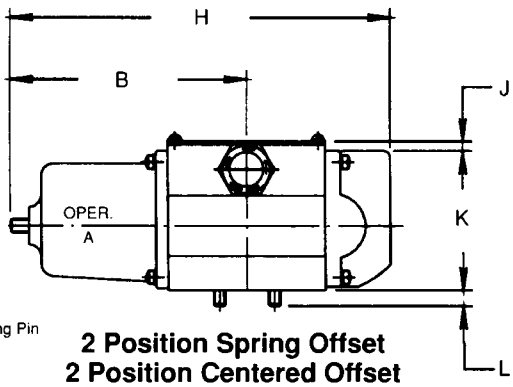
E

Dimensions



3 Position Spring Centered
2 Position Detented





2 Position Spring Offset
2 Position Centered Offset

Power Source	Operating Type		All Dimensions are in Inches											Mounting Bolt Torque
			A	B	C	D	E	F	G	H	J	K	L	
Double Solenoid A.C.	01 04	3-Position Spring Centered 2-Position Detented	$12\frac{3}{4}$	$6\frac{3}{8}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	—	$\frac{1}{8}$	3	$\frac{5}{16}$	160 to 180 Inch Lbs.
Single Solenoid A.C.	02+03 11+21	2-Position Spring Offset 2-Position Centered Offset	—	$6\frac{3}{8}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	$9\frac{5}{16}$	$\frac{1}{8}$	3	$\frac{5}{16}$	
Double Solenoid D.C.	01 04	3-Position Spring Centered 2-Position Detented	$14\frac{15}{16}$	$7\frac{15}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	—	$\frac{1}{8}$	3	$\frac{5}{16}$	
Single Solenoid D.C.	02+03 11+21	2-Position Spring Offset 2-Position Centered Offset	—	$7\frac{15}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	$10\frac{3}{8}$	$\frac{1}{8}$	3	$\frac{5}{16}$	
Pneu. or Hyd. Double Operator	01 04	3-Position Spring Centered 2-Position Detented	$9\frac{9}{16}$	$4\frac{25}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	—	$\frac{1}{8}$	3	$\frac{5}{16}$	
Pneu. or Hyd. Single Operator	02+03 11+21	2-Position Spring Offset 2-Position Centered Offset	—	$4\frac{25}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$2\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{7}{16}$	$7\frac{11}{16}$	$\frac{1}{8}$	3	$\frac{5}{16}$	

Note: Pneumatic and hydraulic operators, operating pressure is 20 to 150 PSI.

2502-E1.p65, dd

Parker Hannifin Corporation
Hydraulic Valve Division
Elyria, Ohio, USA