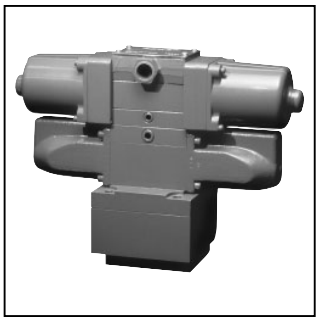
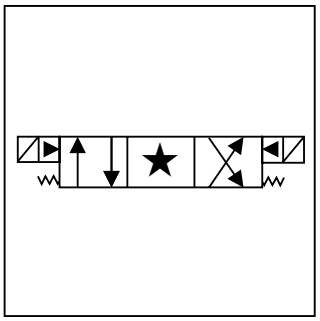
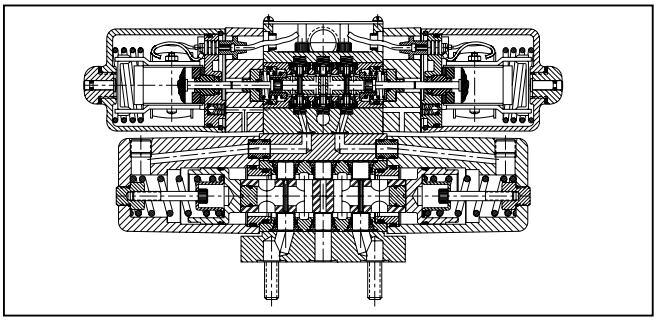
General Description

Series 25100 and 25200 Exectrol directional control valves are solenoid controlled, pilot 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.

E

Valve Series	Flow GPM	CV Factor	Pilot Valve Series	Weight Including Sequence Valve (Lbs.)
25100	25 Max.	2.5	21100 (3 GPM)	30 to 32
25200	45 Max.	4.3	21100 (3 GPM)	40 to 42.5

Specifications

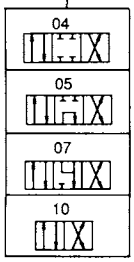
Service Applications	Hydraulic oil. Water containing minimum of 5% soluble oil. Suggest water soluble oil with a sodium sulphonate-based emulsifier. Oil should have a viscosity of 250-350 SSU at 38°C (100°F). Others available on special order.
Maximum Operating Pressure	Pilot: 10.4 to 414 Bar (150 to 6000 PSI) 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	25100: 94.6 LPM (25 GPM) 25200: 107.3 LPM (45 GPM)
Internal Leakage	8 drops per min. maximum

Mounting	Subplate. Mounting bolts furnished
Material	Cover, Body, Bottom Plate, Inserts, Washers, Spring Retainer, Screws, Retainer Plate, Selaing Ring, Pistons, Main End Caps: Steel Name Plate, Pilot End Cap, Pilot Retainer Plate: Aluminum alloy 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)

251 — **Catalog Number**

- **251** 25 GPM Main Valve 3 GPM Pilot Valve
- **252** 45 GPM Main Valve 3 GPM Pilot Valve

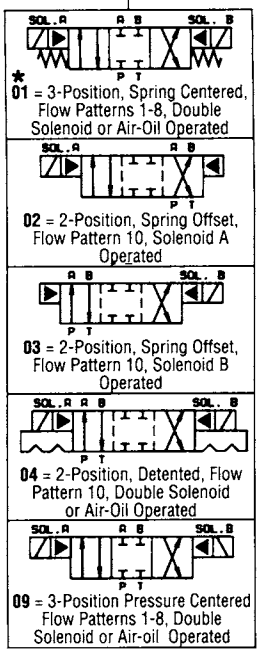
04 — **Flow Pattern**



-73 — **Power Source**

- **70** Air - Oil Operated
- **73** 115V/60C A.C.

02 — **Operating Type**



* **01** = 3-Position, Spring Centered, Flow Patterns 1-8, Double Solenoid or Air-Oil Operated

02 = 2-Position, Spring Offset, Flow Pattern 10, Solenoid A Operated

03 = 2-Position, Spring Offset, Flow Pattern 10, Solenoid B Operated

04 = 2-Position, Detented, Flow Pattern 10, Double Solenoid or Air-Oil Operated

09 = 3-Position Pressure Centered Flow Patterns 1-8, Double Solenoid or Air-oil Operated

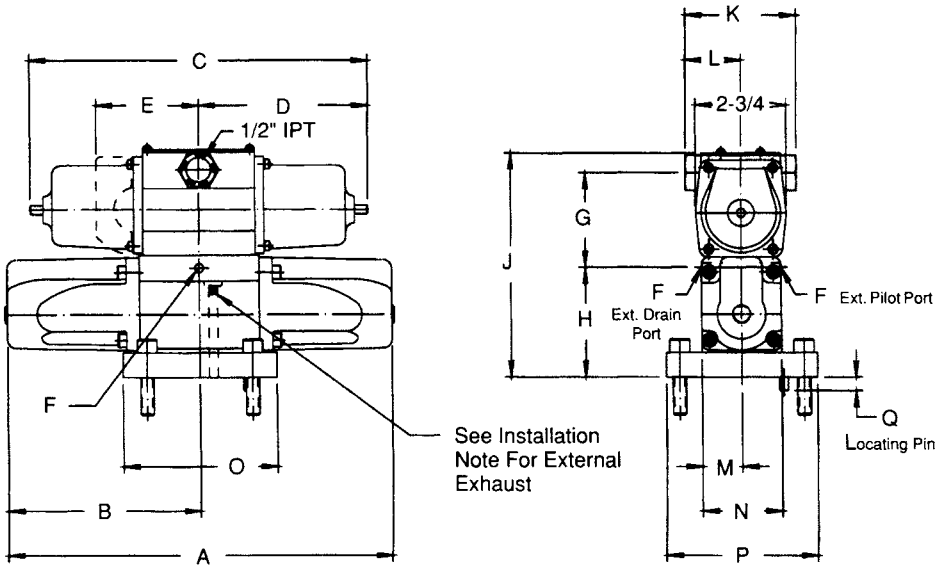
-02 — **O-Ring Code**

- **02** Commercial Nitrile
- **28** Fluorocarbon A

01 — **Optional Features**

- **00** No Options
- **01** Sequence Valve
- **02** Pilot Speed Control Valve
- **03** External Drain
- **04** Sequence Valve Pilot Speed Control Valve
- **05** Sequence Valve External Drain
- **06** Pilot Speed Control Valve External Drain
- **07** Sequence Valve Pilot Speed Control Valve External Drain

E



Valve Series	Power Source	All Dimensions are in Inches																	
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	Mounting Torque	S	T
25100	A.C.	$10\frac{31}{32}$	$5\frac{31}{64}$	$12\frac{3}{4}$	$6\frac{3}{8}$	$2\frac{15}{16}$	$\frac{1}{4}$	$2\frac{51}{64}$	$3\frac{1}{16}$	$6\frac{13}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$1\frac{1}{8}$	$2\frac{1}{4}$	$4\frac{3}{8}$	$4\frac{1}{4}$	1/4 Dia. X 3/8 Proj.	700 In. Lbs.	.812	$1\frac{5}{8}$
	D.C.			$14\frac{15}{16}$	$7\frac{15}{32}$															
	Air Oper.			$9\frac{9}{16}$	$4\frac{9}{32}$			—												
25200	A.C.	$13\frac{1}{4}$	$6\frac{5}{8}$	$12\frac{3}{4}$	$6\frac{3}{8}$	$2\frac{15}{16}$	$\frac{1}{4}$	$2\frac{51}{64}$	$3\frac{17}{64}$	$6\frac{3}{4}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$1\frac{3}{8}$	$2\frac{3}{4}$	$4\frac{3}{8}$	$4\frac{1}{4}$	1/4 Dia. X 3/8 Proj.	700 In. Lbs.	1.000	$2\frac{1}{8}$
	D.C.			$14\frac{15}{16}$	$7\frac{15}{32}$															
	Air Oper.			$9\frac{9}{16}$	$4\frac{9}{32}$			—												

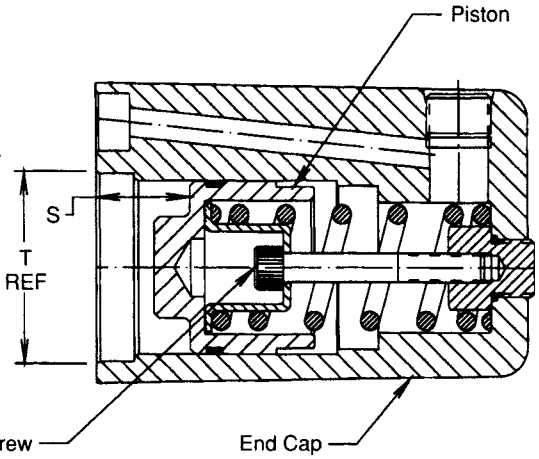
Minimum operating pilot pressure is 150 PSI.

Internal Piloting:
A sequence valve must be used to provide upstream minimum pilot pressure when using a single pressure source for both the slave and pilot valves.

External Piloting:
(No sequence valve used.) Minimum pilot pressure (150 PSI above exhaust pressure) must be supplied to the external pilot port of the pilot valve.

External exhaust for the pilot valve requires the use of part number 02050-2700-0000 installed as follows (see page 6-9 valve drawing):
1. Remove pilot valve.
2. Remove slave valve pilot cover.
3. Insert plug assembly into internal drain orifice.
4. Re-assemble valve and connect external drain at "F".

Note:
External drain should be used when pilot media is different from primary media.



When reassembling spring centering end cap, maintain "S" dimension.