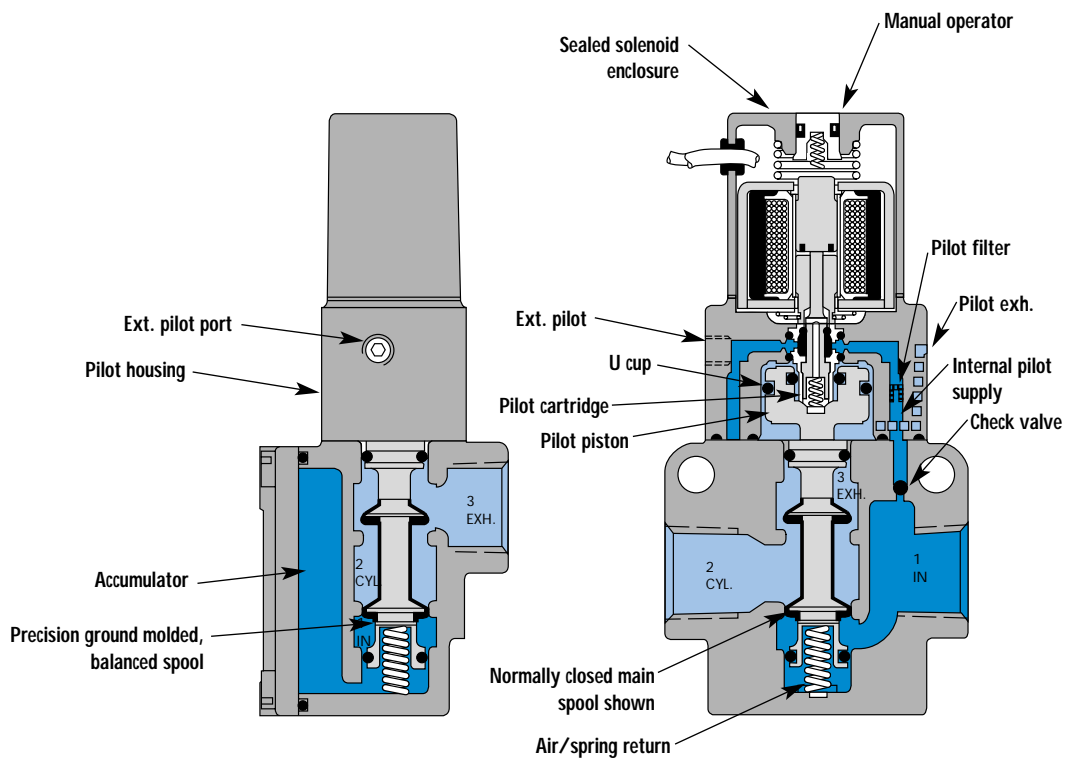


Individual mounting

inline



SERIES FEATURES

- The patented MACSOLENOID® with its non-burn out feature on AC service.
- Balanced spool unaffected by back pressure in the exhaust or by inlet restrictions.
May be plugged for 2-way operation.
- A large checked accumulator which supplies the pilot and air/spring return for consistent shifting.
- Use on lube or non-lube service.
- Extremely rapid response and cycle rate.
- Various types of manual operators and solenoid enclosures.
- Optional low wattage DC solenoids down to 1 watt.



Series 55

100%
OF
PRODUCTION
TESTED
100%

WARRANTY
18
MONTHS

VALVE CONFIGURATIONS AVAILABLE

- 3-Way Normally Open or Normally Closed (solenoid or remote air).
- 2-Way (by plugging a port) Normally Open or Normally Closed (solenoid or remote air).
- Internal pilot or External pilot for vacuum to 30 PSI main valve pressures on solenoid or 25 on remote air operated models. Manual and mechanical operators available.

SERIES FEATURES-REMOTE AIR PILOT OPERATED VALVES

These air versions feature:

- A large checked accumulator for air/spring return.
- Balanced spool unaffected by back pressure in the exhaust or by inlet restrictions. May be plugged for 2-way operation.
- Use on lube or non-lube service.

SERIES FEATURES-REMOTE AIR PILOT, PILOT OPERATED VALVES

These special air versions have the same features as the remote air pilot operated models, but additionally feature:

- Ability to use a pilot signal pressure different from the main valve pressure. Pilot signal can be from 30 to 150 PSI, regardless of main valve pressure.
- A manual operator and position indicator standard.

SPECIAL APPLICATIONS:

- VACUUM APPLICATIONS: Connect the vacuum source to port #3 with port #1 open to atmosphere, and use external pilot on solenoid pilot operated models. On remote air pilot models, use **RE**.
- SELECTOR APPLICATIONS: Pipe higher pressure to port #1 and lower pressure to port #3.
- INTERNAL PILOT: Use for main valve pressure of 30 to 150 PSI on all models. Includes ball check in the body and an M5x0.8 plug installed in the external pilot port.
- EXTERNAL PILOT: An external pilot supply is required when main valve pressures are lower than 30 psi on solenoid pilot or 25 psi on remote air pilot operated models. To convert from internal to external pilot on solenoid models simply rotate pilot housing 180 degrees and connect external pilot source. (Use either M5 or #10-32 fitting.) On remote air pilot models, specify **RE**.

Function	Port size	Flow (Max)	Individual mounting
3/2 NO-NC, 2/2 NO-NC	1/4" - 3/8"	2.2 C _v	inline

OPERATIONAL BENEFITS

- Balanced spool, immune to variations of pressure.
- Short stroke with high flow.
- The piston (booster) provides maximum shifting forces.
- Checked accumulator guarantees maximum pilot pressure.
- Powerful return force thanks to the combination of mechanical and air springs.
- Bonded spool with minimum friction, shifting in a glass-like finished bore.
- Wiping effect eliminates sticking.
- Pilot valve with balanced poppet, high flow, short and consistent response times.



HOW TO ORDER

Port size	Pilot air	NC valve	NO valve
1/4" NPTF	Internal	55B-11-PI- XXYZZ	55B-21-PI- XXYZZ
3/8" NPTF	Internal	55B-12-PI- XXYZZ	55B-22-PI- XXYZZ
1/4" NPTF	External	55B-11-PE- XXYZZ	55B-21-PE- XXYZZ
3/8" NPTF	External	55B-12-PE- XXYZZ	55B-22-PE- XXYZZ

SOLENOID OPERATOR ►

XX Y ZZ

XX	Voltage	Y	Manual operator	ZZ	Electrical connection
11	120/60, 110/50	1	Non-locking	JB	Rectangular connector
12	240/60, 220/50	2	Locking	JD	Rectangular connector with light
22	24/60, 24/50			JA	Square connector
59	24 VDC (2.5 W)			JC	Square connector with light
87	24 VDC (17.1 W)			BA	Flying leads (18")
61	24 VDC (8.5 W)			CA	Conduit 1/2" NPS

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Internal pilot : 30 to 150 PSI External pilot : vacuum to 150 PSI		
Pilot pressure :	30 to 150 PSI		
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
Filtration :	40 µ		
Temperature range :	0°F to 120°F (-18°C to 50°C)		
Flow (at 6 bar, ΔP=1bar) :	Norm. Closed : 1/4" (1.4 C _v), 3/8" (1.6 C _v), Norm. Open : 1/4" (1.8 C _v), 3/8" (2.2 C _v)		
Leak rate :	50 cm ³ /min		
Coil :	General purpose class A, continuous duty, encapsulated		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	Consult factory		
Power :	~ Inrush : 14.8 VA Holding : 10.9 VA = 1 to 17 W		
Response times :	24 VDC (8.5 W)	Energize : 9 ms	De-energize : 4.8 ms
	120/60	Energize : 5-11 ms	De-energize : 5-11 ms

Spare parts :

- Solenoid operator (power ≥ 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.
- Pilot valve : PID-XYZZ, including mounting screws 35214 and seal 16363. • Check valve : 70061.

Options :

- BSPP threads.

DIMENSIONS

Dimensions shown are metric (mm)

