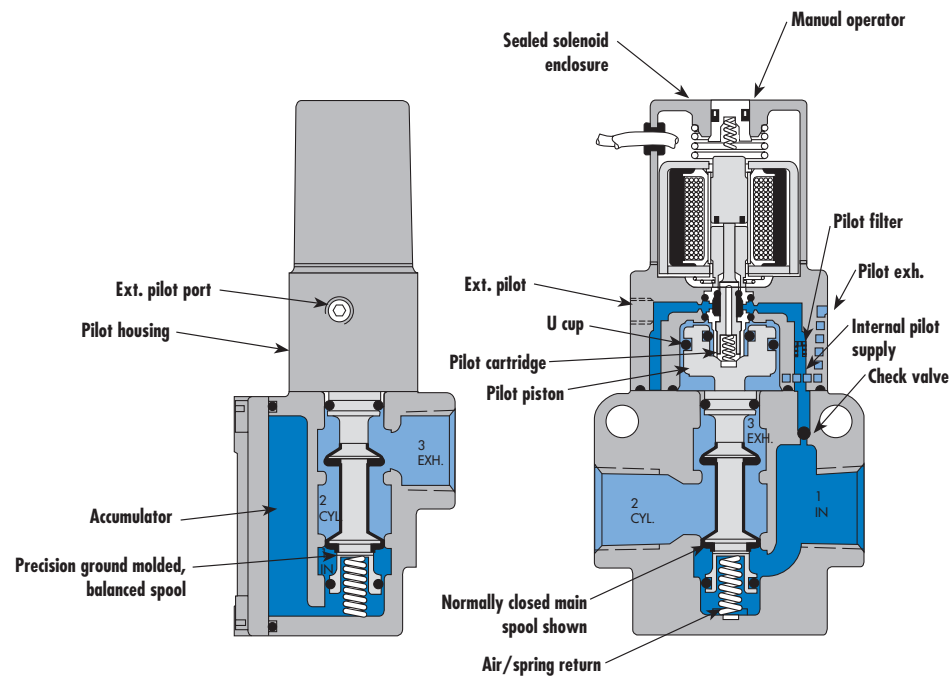


Direct solenoid and solenoid pilot operated valves

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.



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 2 bar main valve pressures on solenoid or 1,7 bar 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 2 to 10 bar, 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 2 to 10 bar 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 2 bar on solenoid pilot or 1,7 bar 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**.

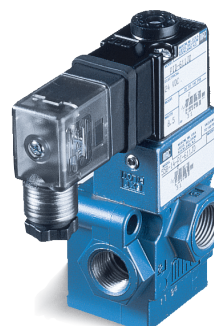


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow (Max)	Individual mounting
3/2 NO-NC, 2/2 NO-NC	G1/4" - G3/8"	2200 NI/min	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
G1/4"	Internal	55B-13-PI- XXYYZZ	55B-23-PI- XXYYZZ
G3/8"	Internal	55B-14-PI- XXYYZZ	55B-24-PI- XXYYZZ
G1/4"	External	55B-13-PE- XXYYZZ	55B-23-PE- XXYYZZ
G3/8"	External	55B-14-PE- XXYYZZ	55B-24-PE- XXYYZZ

SOLENOID OPERATOR ►

XX Y ZZ*

XX Voltage	Y Manual operator	ZZ Electrical connection
11 110V~/50Hz	1 Non-locking	JB Rectangular connector
12 220V~/50Hz	2 Locking	JD Rectangular connector with light
22 24V~/50Hz		JA Square connector
59 24V~/2,5W		JC Square connector with light
87 24V~/17,1W		BA Flying leads (45 cm)
61 24V~/8,5W		

* Other options available, see page 305.
Note : Exhaust port is G3/8"

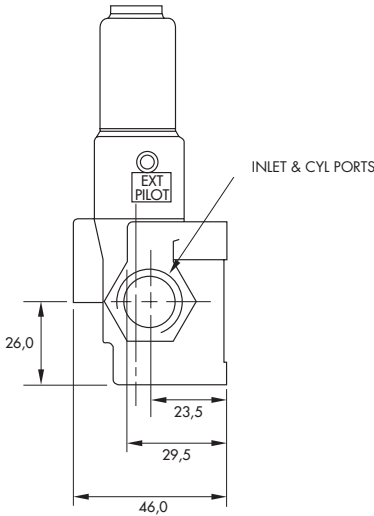
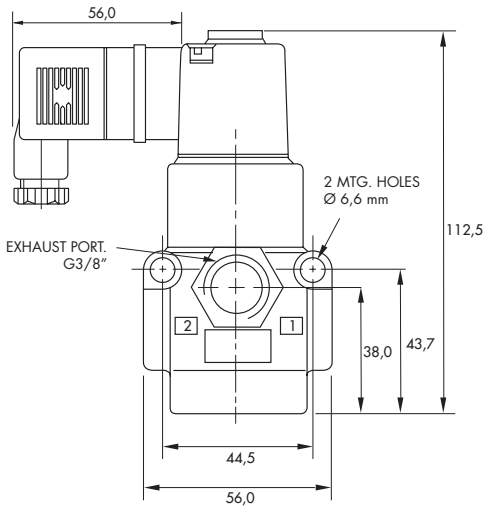


TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal pilot : 2 to 10 bar External pilot : vacuum to 10 bar
Pilot pressure :	2 to 10 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to 50°C (0°F to 120°F)
Flow (at 6 bar, ΔP=1bar) :	Norm. Closed : G1/4" : 1400 NI/min, G3/8" : 1600 NI/min, Norm. Open : G1/4" : 1800 NI/min, G3/8" : 2200 NI/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 V= / 8.5 W Energize : 9 ms De-energize : 4.8 ms 50 Hz / 6 W 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 :
- NPTF threads.

DIMENSIONS

Dimensions shown are metric (mm)



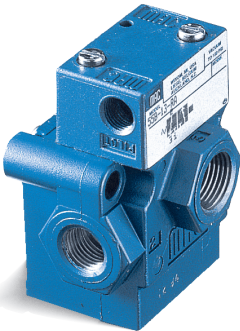


R e m o t e a i r v a l v e s

Function	Port size	Flow (Max)	Individual mounting
3/2 NO-NC, 2/2 NO-NC	G1/4" - G3/8"	2500 NI/min	Inline

OPERATIONAL BENEFITS

1. Balanced spool, immune to variations of pressure.
2. Short stroke with high flow.
3. The piston (booster) provides maximum shifting forces.
4. Powerful return thanks to the combination of mechanical and air springs.
5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
6. Wiping effect eliminates sticking.
7. Low leakage rate.



HOW TO ORDER

Port size	Air spring	NC valve	NO valve
G1/4"	Internal	55B-13-RA	55B-23-RA
G3/8"		55B-14-RA	55B-24-RA
G1/4"	External	55B-13-RE	55B-23-RE
G3/8"		55B-14-RE	55B-24-RE

Air pilot port : G1/8".

Note: Designation "RE" required on remote air pilot models with main valve pressures of vacuum to 1.7 bar. "RE" provides an external pilot port and should have a pressure range of 1.7 to 6.7 bar. Since the external pilot supplies the air spring, it must not exceed the remote air pilot signal pressure.



TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 10 bar
Air signal pressure :	1.7 to 10 bar ≥ main valve pressure
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C to 100°C)
Filtration :	40 µ
Temperature range :	-18°C to 50°C (0°F to 120°F)
Flow (at 6 bar, ΔP=1bar) :	G1/4" : 2500 NI/min, G3/8" : 2500 NI/min

- Spare parts :
- Remote air operator : R-55001-01.
 - Check valve : 70061.
- Options :
- NPTF threads.

DIMENSIONS

Dimensions shown are metric (mm)

