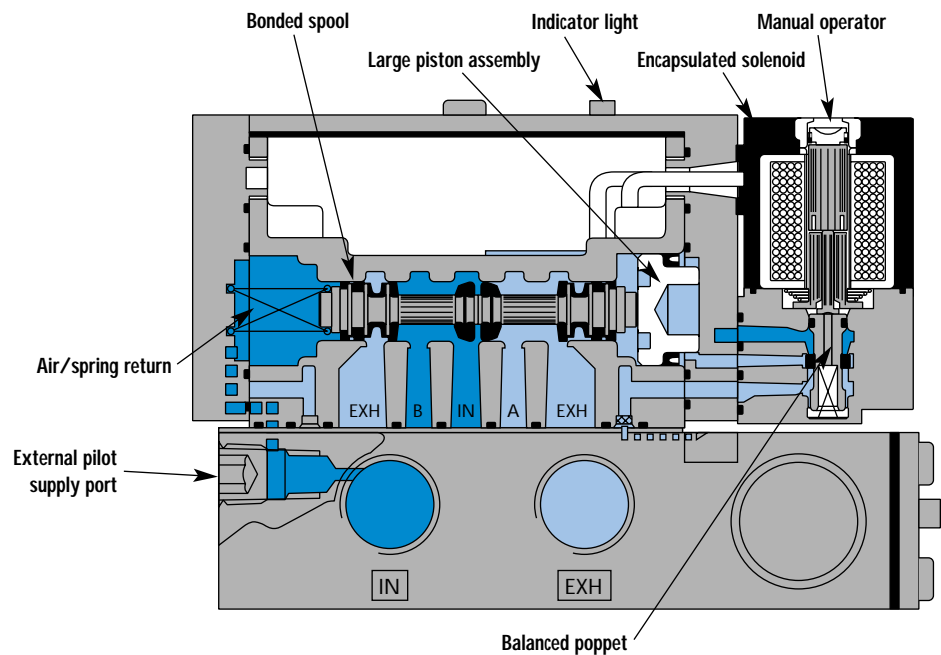


Individual mounting

sub-base non "plug-in"	sub-base "plug-in"
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Manifold mounting

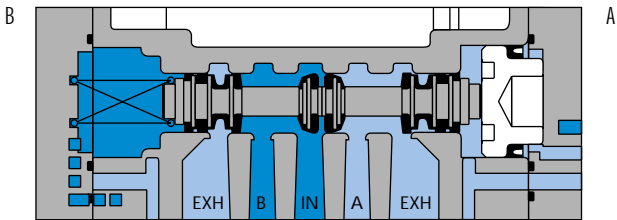
sub-base non "plug-in"	sub-base "plug-in"
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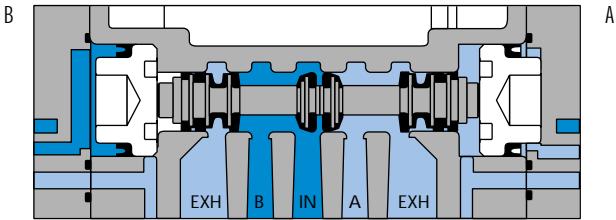
SERIES FEATURES

- Unique patented MACSOLENOID® for fastest possible response times.
- Balanced poppet pilot valve for high flow, precise repeatability, and consistent operation.
- Large spool piston for maximum shifting force even at minimum operating pressure.
- Air/spring return for consistent shifting on single solenoid models.
- MAC spool and bore combination for wiping away contamination, eliminating sticking, and use on non-lube service.
- Patented virtually burn-out proof AC solenoid.
- Plug-in design of valves, bases, flow controls, and regulators for modular assembly and ease of maintenance.
- Optional low wattage DC solenoids down to 1.8 watts.
- Indicator lights in valve body or base and non-plug-in models available.
- Very high flow in a very compact package.

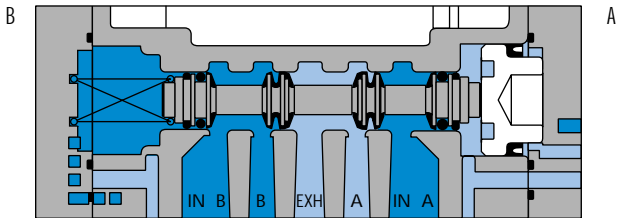
SPOOL CONFIGURATIONS



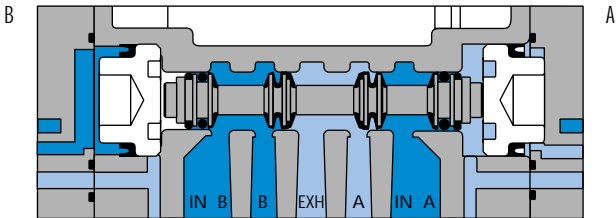
SINGLE OPERATOR
SINGLE INLET - DUAL EXHAUST
SHOWN WITH "B" OPERATOR ENERGIZED



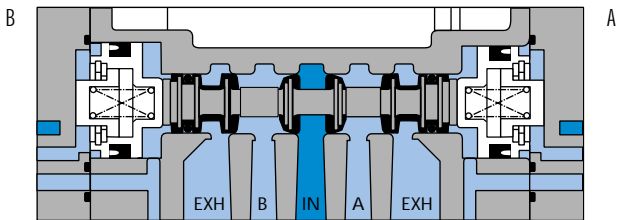
DOUBLE OPERATOR
SINGLE INLET - DUAL EXHAUST
SHOWN WITH "B" OPERATOR ENERGIZED



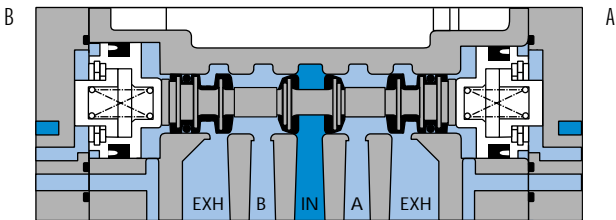
SINGLE OPERATOR
DUAL INLET - SINGLE EXHAUST
SHOWN WITH "B" OPERATOR ENERGIZED



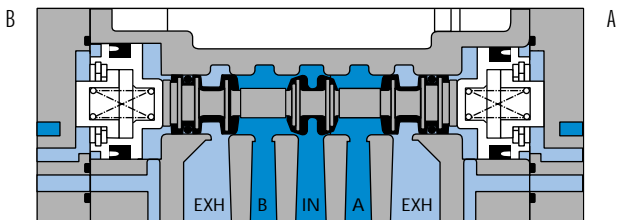
DOUBLE OPERATOR
DUAL INLET - SINGLE EXHAUST
SHOWN WITH "B" OPERATOR ENERGIZED



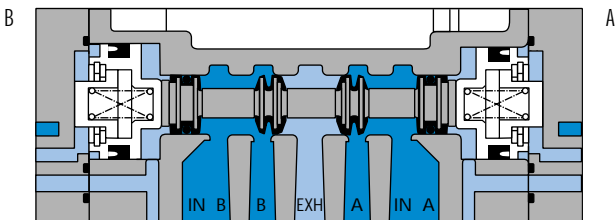
3 POSITION CLOSED CENTER



3 POSITION OPEN CENTER



3 POSITION SINGLE PRESSURE
PRESSURE CENTER



3 POSITION DUAL PRESSURE
PRESSURE CENTER

Function	Port size	Flow (Max)	Individual mounting
4/2 - 4/3	1/8" - 1/4" - 3/8"	1.35 C _v	sub-base non "plug-in"

OPERATIONAL BENEFITS

- Balanced spool, immune to variations of pressure.
- Short stroke with high flow.
- The piston (booster) provides maximum shifting forces.
- 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.
- Long service life.



HOW TO ORDER

Port size	Pilot air	4/2 Single operator	4/2 Double operator	4/3 Closed center	4/3 Open center	4/3 Pressure center
Valve less base		82A-AB-000-TM-Dxxx-xxx	82A-BB-000-TM-Dxxx-xxx	82A-EB-000-TM-Dxxx-xxx	82A-FB-000-TM-Dxxx-xxx	82A-GB-000-TM-Dxxx-xxx
sub-base	Internal	82A-AB-AAA-TM-Dxxx-xxx	82A-BB-AAA-TM-Dxxx-xxx	82A-EB-AAA-TM-Dxxx-xxx	82A-FB-AAA-TM-Dxxx-xxx	82A-GB-AAA-TM-Dxxx-xxx
1/8" NPTF	External	82A-AB-AAD-TM-Dxxx-xxx	82A-BB-AAD-TM-Dxxx-xxx	82A-EB-AAD-TM-Dxxx-xxx	82A-FB-AAD-TM-Dxxx-xxx	82A-GB-AAD-TM-Dxxx-xxx
sub-base	Internal	82A-AB-BAA-TM-Dxxx-xxx	82A-BB-BAA-TM-Dxxx-xxx	82A-EB-BAA-TM-Dxxx-xxx	82A-FB-BAA-TM-Dxxx-xxx	82A-GB-BAA-TM-Dxxx-xxx
1/4" NPTF	External	82A-AB-BAD-TM-Dxxx-xxx	82A-BB-BAD-TM-Dxxx-xxx	82A-EB-BAD-TM-Dxxx-xxx	82A-FB-BAD-TM-Dxxx-xxx	82A-GB-BAD-TM-Dxxx-xxx
sub-base	Internal	82A-AB-CAA-TM-Dxxx-xxx	82A-BB-CAA-TM-Dxxx-xxx	82A-EB-CAA-TM-Dxxx-xxx	82A-FB-CAA-TM-Dxxx-xxx	82A-GB-CAA-TM-Dxxx-xxx
3/8" NPTF	External	82A-AB-CAD-TM-Dxxx-xxx	82A-BB-CAD-TM-Dxxx-xxx	82A-EB-CAD-TM-Dxxx-xxx	82A-FB-CAD-TM-Dxxx-xxx	82A-GB-CAD-TM-Dxxx-xxx

SOLENOID OPERATOR

D XX X- X XX

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120/60, 110/50	A	18" (Flying leads)	1	Non-locking	KA	Square connector
AB	240/60, 220/50	J	Connector	2	Locking	KD	Square connector with light
AC	24/60, 24/50					JB	Rectangular connector
FB	24 VDC (1.8 W)					JD	Rectangular connector with light
DA	24 VDC (5.4 W)					BA	Flying leads
DF	24 VDC (12.7 W)						

Note : KD connector shown in photo.

OPTIONS

82A-AB-000-TM-Dxxx-xxx
 - For dual pressure valves, replace A by C, B by D, E by M, F by L, G by H.
 (Requires sandwich regulator, see pressure regulator section.)

82A-AB-000-TM-Dxxx-xxx
 - TP (Piped pilot exhaust)
 - For pilot exhaust out main exhaust, replace B by E. Also, TM pilot body is replaced by TU pilot body.
 - Main exhaust cannot be restricted. Available only on single pressure valves.

82A-XX-BAA-TM-Dxxx-xxx
 - Replace A by B for bottom ports (1/8" or 1/4" only)
 - Replace A by C for side and bottom ports (1/8" or 1/4" only)

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases	
Pressure range :	Internal pilot : single operator and 3 positions : 25-150 PSI	double operator : 10-150 PSI
	External pilot : vacuum to 150 PSI	
Pilot pressure :	Single operator and 3 positions : 25-150 PSI Double operator : 10-150 PSI	
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)	
Filtration :	40 μ	
Temperature range :	0°F to 120°F (-18°C to 50°C)	
Flow (at 6 bar, ΔP=1bar) :	1/8" : (0.9 C _v), 1/4" : (1.3 C _v), 3/8" : (1.35 C _v)	
Leak rate :	100 cm ³ /min	
Coil :	Epoxy encapsulated - class A wires - Continuous duty.	
Voltage range :	-15% to +10% of nominal voltage	
Protection :	Consult factory	
Power :	~ Inrush : 10.9 VA Holding : 7.7 VA = 1.8 to 12.7 W	
Response times :	24 VDC (5.4 W)	Energize : 9 ms De-energize : 6 ms
	120/60	Energize : 5-12 ms De-energize : 6-13 ms

Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal between solenoid and pilot body : 16402. • Pilot valve : TM-DXXX-XXX, including seal 16447.
- Mounting screw pilot to main valve : 35023. • Pressure seal between valve and base : 16446.
- Mounting screw valve to base (x2) : 35211.

Options :

- BSPP threads. • Flow controls (Part N° FC82A-BA) • Explosion-proof model.

DIMENSIONS

Dimensions shown are metric (mm)

