

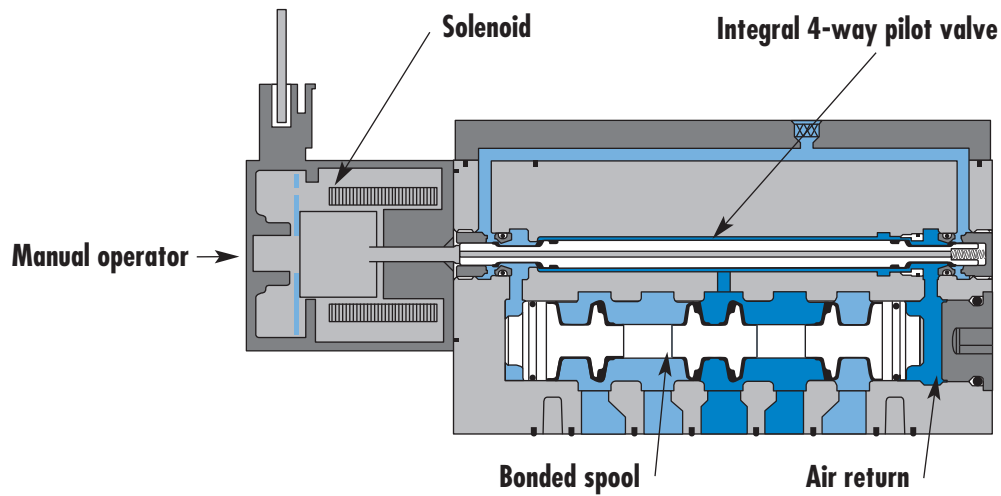
Individual mounting

Valve only -
 No base
 non "plug-in"
 Conform to
 ISO 15407/1

Series

Manifold mounting

Valve only -
 No base
 non "plug-in"
 Conform to
 ISO 15407/1



SERIES FEATURES

- High force MACSOLENOID®.
- Integral 4-way pilot design.
- 2-position, single or double operator.
- 3-position, double solenoid, open center, closed center and pressure center.
- Internal or external pilot.
- Single or dual pressure.

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 ISO 01
ISO 02
 ISO 1
 ISO 2
 ISO 3

Function	Port size	Flow [Max]	Individual/Manifold mounting	Series
5/2, 5/3	1/8"	0.43 C_v	Valve only - No base non "plug-in" Conform to ISO 15407/1	

OPERATIONAL BENEFITS

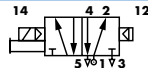
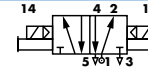
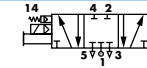
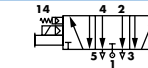
1. Unique patented MACsolenoid® with oval shaped armature for fastest possible response times.
2. Balanced poppet 4-way pilot valve provides maximum shifting forces, precise repeatability and consistent operation.
3. MAC spool and bore combination wipes away contamination, eliminates sticking and allows for use on non-lube service.
4. Large spool area for maximum shifting forces even at minimum operating pressure.
5. Very high flow in a compact package. Pilot valve and main valve in the same body.
6. Internal or external pilot operation.
7. Air only return
8. Optional low wattage DC solenoid down to 1.0 Watt.



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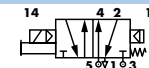
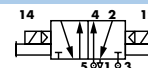
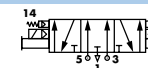
HOW TO ORDER

SINGLE PRESSURE MODELS

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center
Internal	 MV-A02A-AAMA-Jxxx-xxx	 MV-A02A-ABMA-Jxxx-xxx	 MV-A02A-AEMA-Jxxx-xxx	 MV-A02A-AFMA-Jxxx-xxx
External "12" end	MV-A02A-AAMD-Jxxx-xxx	MV-A02A-ABMD-Jxxx-xxx	MV-A02A-AEMD-Jxxx-xxx	MV-A02A-AFMD-Jxxx-xxx
External "14" end	MV-A02A-AAME-Jxxx-xxx	MV-A02A-ABME-Jxxx-xxx	MV-A02A-AEME-Jxxx-xxx	MV-A02A-AFME-Jxxx-xxx

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DUAL PRESSURE MODELS

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Pressure center
Internal from port #3	 MV-A02A-ACMB-Jxxx-xxx	 MV-A02A-ADMB-Jxxx-xxx	 MV-A02A-AHMB-Jxxx-xxx
Internal from port #5	MV-A02A-ACMC-Jxxx-xxx	MV-A02A-ADMC-Jxxx-xxx	MV-A02A-AHMC-Jxxx-xxx
External from "12" end	MV-A02A-ACMD-Jxxx-xxx	MV-A02A-ADMD-Jxxx-xxx	MV-A02A-AHMD-Jxxx-xxx
External from "14" end	MV-A02A-ACME-Jxxx-xxx	MV-A02A-ADME-Jxxx-xxx	MV-A02A-AHME-Jxxx-xxx

48P
48
400
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SOLENOID OPERATOR >

J XXX-XXX *			
XX Voltage	X Lead wire length	X Manual operator	XX Electrical connection
DA 24V=/5,4W	0 No lead wire/ connector	1 Non-locking	BA Flying leads
DB 12V=/5,4W	A 45 cm	2 Locking	JA Square connector
DC 24V=/2,4W	B 60 cm		JC Square connector with light
DD 12V=/2,4W	C 90 cm		JB Rectangular connector
DE 24V=/1,8W			JD Rectangular connector with light
DU 24V=/1,0W			KA Mini square connector
			KD Mini square connector with light

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ISO 01
ISO 02
ISO 1
ISO 2
ISO 3

* Other options available, see page 317.

Note: - ISO series, valve and base are ordered separately, see page 229 for base codes.
- If sandwich regulator is required, valve must be ordered as external pilot. For internal pilot regulator use valve with external pilot 12 end, - for external pilot regulator, use valve with external pilot 12 or 14 end.

OPTIONS

Pilot exhaust: **MV-A02A-XX X X-Jxxx-xxx**

- M** Pilot exhaust muffled
- P** Pilot exhaust piped #10-32
- U** Pilot exhaust out main exhaust

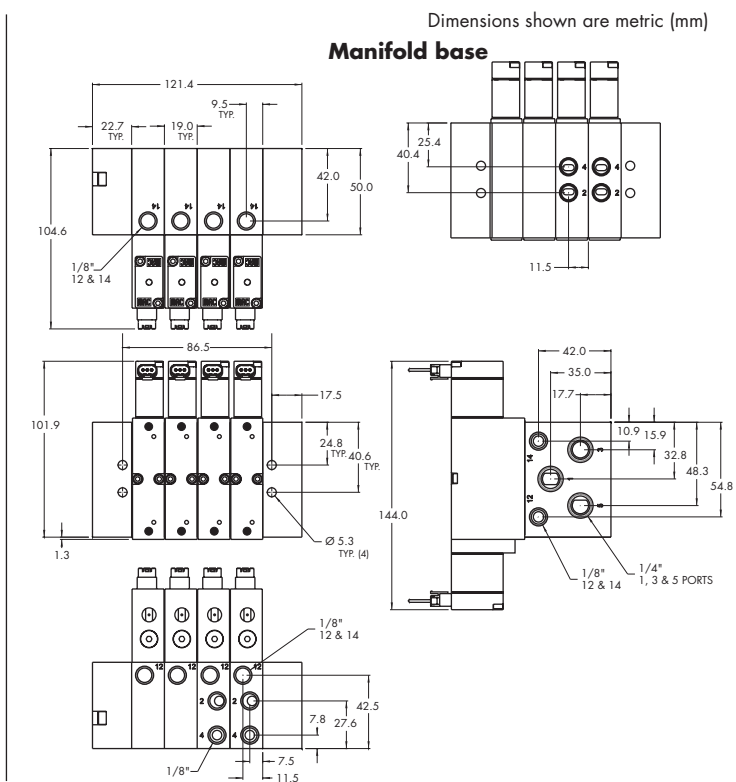
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal Pilot - 2 pos.: 20 to 120 PSI - 3 pos.: 35 to 120 PSI External Pilot: Vacuum to 120 PSI
Pilot pressure :	2 pos.: 20 to 120 PSI - 3 pos.: 35 to 120 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 :	2 pos.: Cv 0.43 – 3 pos.: Cv 0.28
Coil :	Class A wires continuous duty, #22 AWG x 18
Voltage range :	-15% to +10% of nominal voltage
Power :	1,0 to 5,4 W

- Options :
- Sandwich flow controls: FCA02A-AA (screwdriver slot adjustment).
 - Sandwich pressure regulator, see 'Regulators' section

DIMENSIONS

Individual base



Non plug-in individual / manifold base



ISO 01
ISO 02
 ISO 1
 ISO 2
 ISO 3

HOW TO ORDER

INDIVIDUAL BASE

Port size	Pilot air	Side ports	Bottom 2 & 4 ports With all side ports
1/8" NPTF	Internal	MB-A02A-111	MB-A02A-112

MANIFOLD BASE

Port size	Pilot air	Side ports	Bottom 2 & 4 ports With side 1, 3 & 5 ports
1/8" NPTF	Internal	MM-A02A-111	MM-A02A-112

Notes:

- For manifold bases external pilot is common
- A base is ordered as internal pilot and can be changed into external pilot by removing pipe plugs from the external pilot ports (individual base).
- Manifold base: same base for internal and external pilot, different end plate kits.

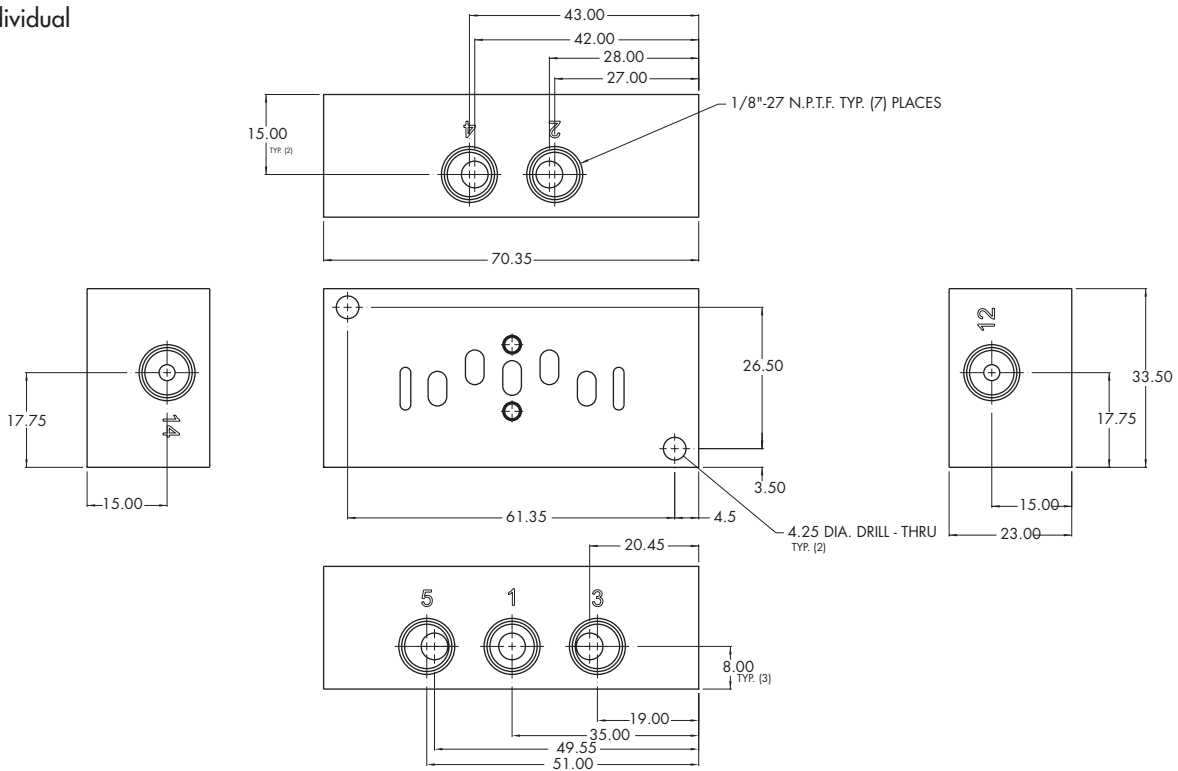
End plate kit: Internal pilot M-00018-01-01
 External pilot M-00018-02-01

Inlet/exhaust isolator: 28499

DIMENSIONS

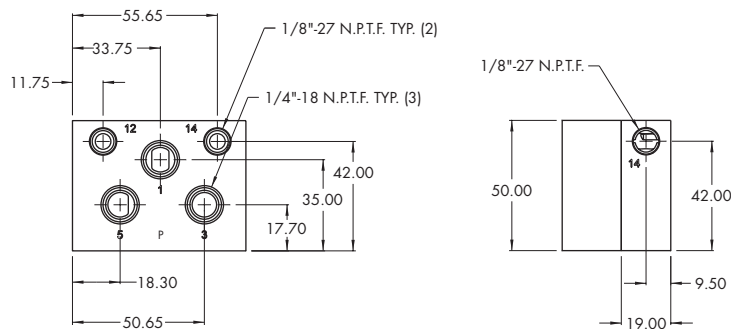
Dimensions shown are metric (mm)

Individual

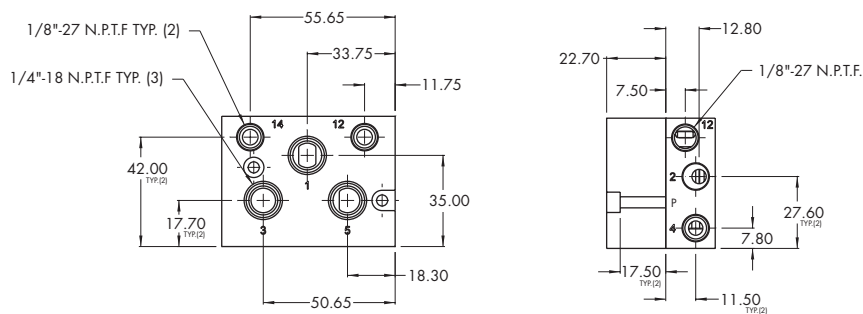


Manifold

LEFT SIDE



RIGHT SIDE



Codification table for voltages / Manual operators / Electrical connections

VALVE CODE >

J XX X-X XX
1 2 3 4

OPTIONS AVAILABLE FOR

- Solenoid valves 36, 46, ISO 01 and ISO 02 Series

1. VOLTAGE

J-XX X-X XX	VOLTAGE
AA	120VAC (5.4W)
AC	24VAC (5.4W)
DE	24VDC (1.8W)
DF	12VDC (1.8W)
DJ	24VDC (1.3W)
DL	12VDC (1.3W)
DN	12VDC (0.5W)*
DR	12VDC (1.0W)*
DS	24VDC (0.5W)*
DU	24VDC (1.0W)*

* Not available on 36 series universal valve

2. WIRE LENGTH

J-XX X-X XX	WIRE LENGTH
A	18" coil leads
B	24" coil leads
C	36" coil leads
D	48" coil leads
E	72" coil leads
F	96" coil leads
P	Base plug-in
O	No leads (use with J, K & L type connectors)

3. MANUAL OPERATOR

J-XX X-X XX	MANUAL OPERATOR
0	No operator
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

4. ELECTRICAL CONNECTION

J-XX X-X XX	CONNECTORS FOR NON PLUG-IN VALVES ELECTRICAL CONNECTION
BA	Flying leads
GA	MAC JAC solenoid plug-in
GB	MAC JAC solenoid plug-in with diode
GC	MAC JAC solenoid plug-in with MOV
GD	MAC JAC solenoid plug-in with light
GE	MAC JAC solenoid plug-in with diode and light
GF	MAC JAC solenoid plug-in with MOV and light
GG	MAC JAC solenoid plug-in with rectifier
GH	MAC JAC solenoid plug-in with rectifier and light
GJ	MAC JAC solenoid plug-in - Male only
GK	MAC JAC solenoid plug-in with diode - Male only
GL	MAC JAC solenoid plug-in with MOV - Male only
GM	MAC JAC solenoid plug-in with light - Male only
GN	MAC JAC solenoid plug-in with diode and light - Male only
GP	MAC JAC solenoid plug-in with MOV and light - Male only
GR	MAC JAC solenoid plug-in with rectifier - Male only
GS	MAC JAC solenoid plug-in with rectifier and light - Male only
*JA	Square Connector
*JC	Square Connector with light
*JE	Square Connector with diode
*JF	Square Connector with MOV
*JG	Square Connector with diode/light
*JH	Square Connector with MOV/light
*JK	Square Connector with Rectifier

J-XX X-X XX

*JL	Square Connector with Rectifier with light
*JJ	Square Connector Male only (Plain)
*JB	Rectangular Connector
*JD	Rectangular Connector with light
*JN	Rectangular Connector with diode
*JP	Rectangular Connector with MOV
*JR	Rectangular Connector with diode/light
*JS	Rectangular Connector with MOV/light
*JT	Rectangular Connector with Rectifier
*JU	Rectangular Connector with Rectifier with light
*JM	Rectangular Connector Male only (Plain)

* Not available on manifold or stacking valves

**CONNECTORS FOR NON PLUG-IN VALVES
MINI SQUARE PLUG-IN CONNECTORS
9.4 MM SPACING BETWEEN PINS**

J-XX X-X XX	
KA	Mini plug-in
KB	Mini plug-in with diode
KC	Mini plug-in with MOV
KD	Mini plug-in with light
KE	Mini plug-in with diode and light
KF	Mini plug-in with MOV and light
KG	Mini plug-in with rectifier
KH	Mini plug-in with rectifier and light
KJ	Mini plug-in - Male only
KK	Mini plug-in with diode - Male only
KL	Mini plug-in with MOV - Male only
KM	Mini plug-in with light - Male only
KN	Mini plug-in with diode and light - Male only
KP	Mini plug-in with MOV and light - Male only
KR	Mini plug-in with rectifier - Male only
KS	Mini plug-in with rectifier and light - Male only

**CONNECTORS FOR NON PLUG-IN VALVES
MINI SQUARE PLUG-IN CONNECTORS
8.0 MM SPACING BETWEEN PINS
ISO SPECIFICATION 15217**

J-XX X-X XX	
LA	Mini plug-in
LB	Mini plug-in with diode
LC	Mini plug-in with MOV
LD	Mini plug-in with light
LE	Mini plug-in with diode and light
LF	Mini plug-in with MOV and light
LG	Mini plug-in with rectifier
LH	Mini plug-in with rectifier and light
LJ	Mini plug-in - Male only
LK	Mini plug-in with diode - Male only
LL	Mini plug-in with MOV - Male only
LM	Mini plug-in with light - Male only
LN	Mini plug-in with diode and light - Male only
LP	Mini plug-in with MOV and light - Male only
LR	Mini plug-in with rectifier - Male only
LS	Mini plug-in with rectifier and light - Male only

J-XX X-X XX CONNECTORS FOR PLUG-IN VALVES

FA	Base plug-in
FB	Base plug-in with diode
FC	Base plug-in with MOV
FD	Base plug-in with light
FE	Base plug-in with diode and light
FF	Base plug-in with MOV and light
FG	Base plug-in with rectifier
FH	Base plug-in with rectifier and light