

Individual mounting

Sub-base non "plug-in"	Sub-base "plug-in"	Sub-base/manifold base non "plug-in" with latching solenoid	Sub-base/manifold base "plug-in" with latching solenoid
------------------------	--------------------	---	---

Manifold mounting

Manifold base "plug-in"	Sub-base/manifold base non "plug-in" with latching solenoid	Sub-base/manifold base "plug-in" with latching solenoid
-------------------------	---	---

Series

33

34

36

32

37

38

52

67

69

44

46

42

47

48P

48

400

92

93

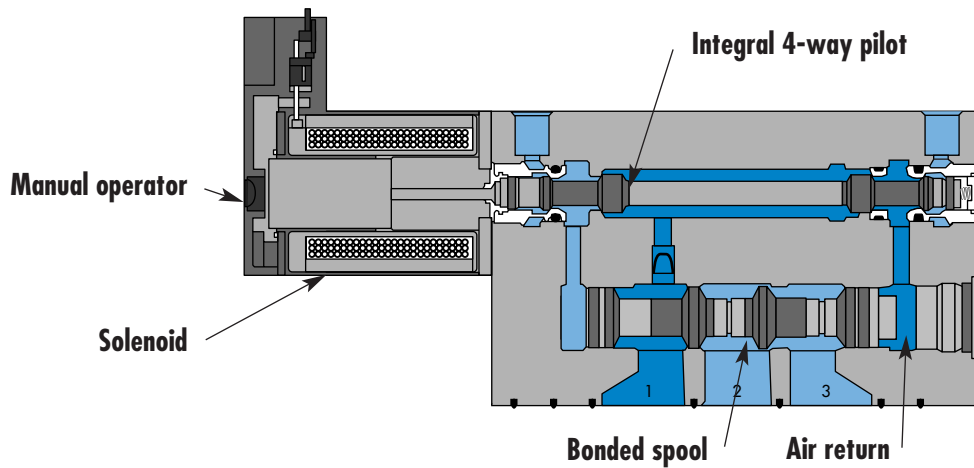
ISO 01

ISO 02

ISO 1

ISO 2

ISO 3



SERIES FEATURES

- High force MACSOLENOID®.
- Integral 4-way pilot design.
- Internal or external pilot.
- Normally open or normally closed function.
- Universal function (external pilot).
- Rectified AC voltage.
- Latching solenoid technology.



Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Individual mounting	Series
3/2 NO-NC	1/8"	1.2 C_v	Sub-base non "plug-in"	

OPERATIONAL BENEFITS

1. 3-way valve with 4-way integral pilot.
2. 10 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1.2 Cv).
4. Fast, repeatable response times.
5. Maximum shifting forces in both directions.



33
34
36
32
37
38

HOW TO ORDER

Port size	Pilot air	NO valve	NC valve	Universal valve
Valve less base	Internal	38B-BMA-000-G XXX-XXX	38B-AMA-000-G XXX-XXX	
	External	38B-BMB-000-G XXX-XXX	38B-AMB-000-G XXX-XXX	38B-GMB-000-G XXX-XXX
1/8" NPTF	Internal	38B-BMA-AAL-G XXX-XXX	38B-AMA-AAL-G XXX-XXX	
	External	38B-BMB-AAM-G XXX-XXX	38B-AMB-AAM-G XXX-XXX	38B-GMB-AAM-G XXX-XXX

Note : Above codes are for side port.

STANDARD SOLENOID OPERATOR >

Voltage		Wire length		Manual operator		Electrical connection	
XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120 VAC (2.5W)	A	18"	1	Non-locking recessed	BA	Flying leads
DA	24 VDC (1.0W)	B	24"	2	Locking recessed	BT	Flying leads with light
DC	24 VDC (1.8W)	C	36"			GA	MAC JAC Solenoid plug-in w/Diode
DD	24 VDC (2.5W)					GB	MAC JAC Solenoid plug-in w/Diode
DF	24 VDC (4.0W)					GC	MAC JAC Solenoid plug-in w/MOV
						GD	MAC JAC Solenoid plug-in w/LED
						GE	MAC JAC Solenoid plug-in w/Diode & LED
						GF	MAC JAC Solenoid plug-in w/MOV & LED
						GG	MAC JAC Solenoid plug-in w/Rectifier
						GH	MAC JAC Solenoid plug-in w/Rectifier & LED
						KA	Plug-in wire assembly
						KT	Plug-in wire assembly with light
						KD	Plug-in wire assembly with rectifier & light & ground

Note : AC voltage requires connector with rectifier.

* Other options available, see page 311.

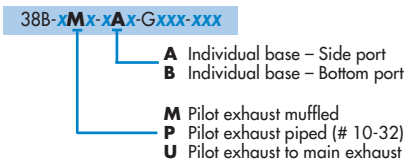
Latching solenoid also available, see page 59.

With MAC JAC electrical connector washdown capability is possible.

Consult factory for modification number.

OPTIONS

Pilot/Base Configuration :



67
69
44
46
42
47
48P

48

400

92

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

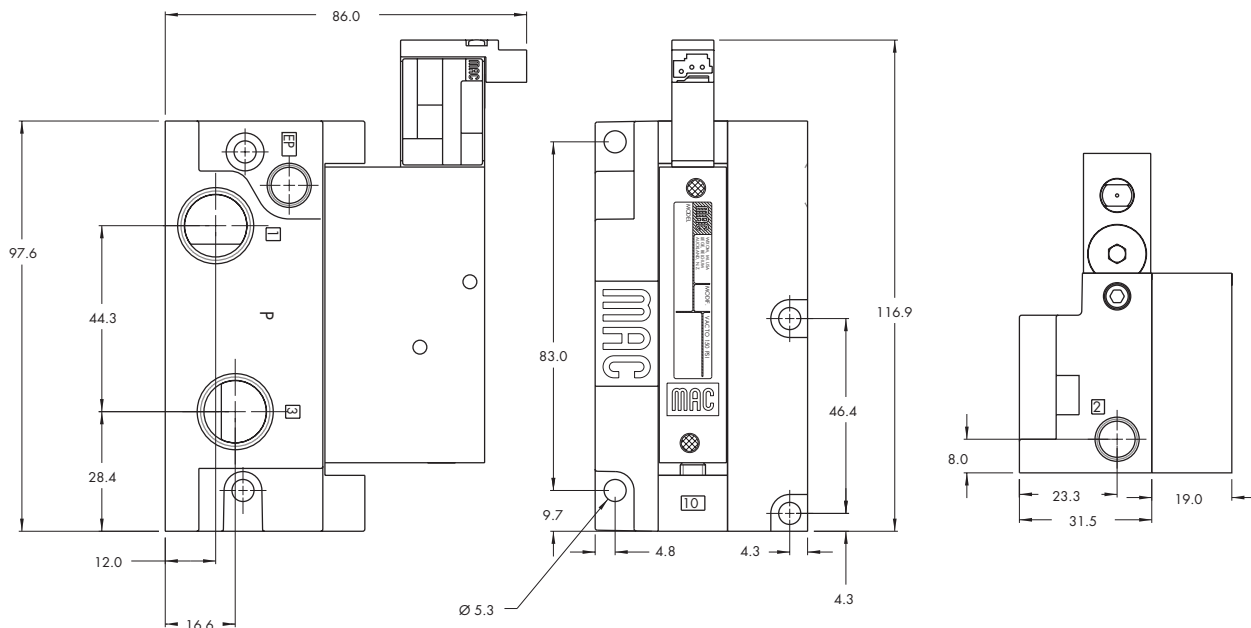
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal Pilot : 20 to 120 PSI External Pilot : Vacuum to 120 PSI
Pilot pressure :	20 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 :	1/8" bottom port: (1.2 C _v) - 1/8" side port: (1.0 C _v)
Coil :	Class A wire (#22 AWG x 18), continuous duty
Voltage range :	-15% to +10% of nominal voltage
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

Options : • BSPP threads

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Individual mounting	Series
3/2 NO-NC	1/8" - 1/4" O.D. tube receptacle	1.2 C_v	Sub-base "plug-in"	

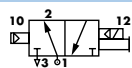
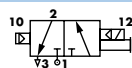
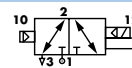
OPERATIONAL BENEFITS

1. 3-way valve with 4-way integral pilot.
2. 10 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1.2 C_v).
4. Fast, repeatable response times.
5. Maximum shifting forces in both directions.



33
34
36
32
37
38
52
67
69
44
46
42
47
48P

HOW TO ORDER

Port size	Pilot air	NO valve	NC valve	Universal valve
				
Valve less base	Internal	38B-BMA-000-G XX P- XXX	38B-AMA-000-G XX P- XXX	
	External	38B-BMB-000-G XX P- XXX	38B-AMB-000-G XX P- XXX	38B-GMB-000-G XX P- XXX
1/8" NPTF	Internal	38B-BMA-AAA-G XX P- XXX	38B-AMA-AAA-G XX P- XXX	
	External	38B-BMB-AAB-G XX P- XXX	38B-AMB-AAB-G XX P- XXX	38B-GMB-BAB-G XX P- XXX
1/4" O.D. Tube receptacle	Internal	38B-BMA-EAA-G XX P- XXX	38B-AMA-EAA-G XX P- XXX	
	External	38B-BMB-EAB-G XX P- XXX	38B-AMB-EAB-G XX P- XXX	38B-GMB-EAB-G XX P- XXX

Note : Above codes are for side port.

STANDARD SOLENOID OPERATOR >

G **XX** P-**XXX***

XX Voltage	X Manual operator	XX Electrical connection
AA 120 VAC (2.5W)	1 Non-locking recessed	SA Base plug-in
DA 24 VDC (1.0W)	2 Locking recessed	SJ Base plug-in with light
DC 24 VDC (1.8W)		SS Base plug-in with rectifier & light & ground
DD 24 VDC (2.5W)		
DF 24 VDC (4.0W)		

Note : AC voltage requires connector with rectifier.

* Other options available, see page 311.

Latching solenoid also available, see page 61.

48
400
92
93
ISO 01
ISO 02
ISO 1
ISO 2
ISO 3

OPTIONS

Pilot/Base Configuration :

38B-**M**X-**A**X-G**XX**P-**XXX**

- A** Individual base – Side port
- B** Individual base – Bottom port
- M** Pilot exhaust muffled
- P** Pilot exhaust piped (# 10-32)
- U** Pilot exhaust to main exhaust

Washdown capability is possible, consult factory for modification number.

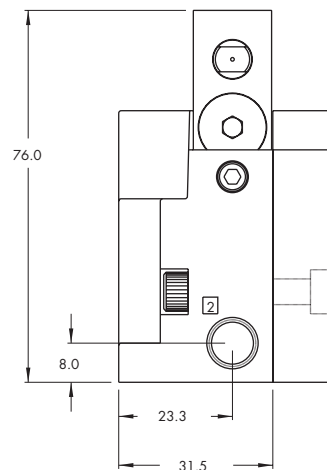
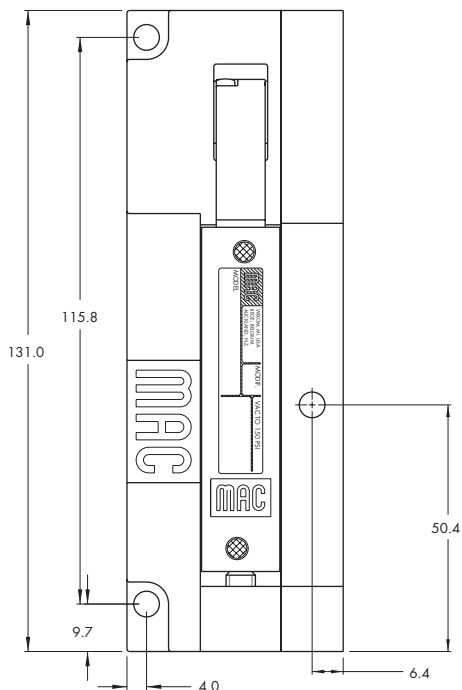
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal Pilot : 20 to 120 PSI External Pilot : Vacuum to 120 PSI
Pilot pressure :	20 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 :	1/8" bottom port: (1.2 C _v) - 1/8" side port: (1.0 C _v) - 1/4" tube receptacle: (0.85 C _v)
Coil :	Class A continuous duty, #22 AWG x 12 base leads
Voltage range :	-15% to +10% of nominal voltage
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

Options : • BSPP threads

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Manifold mounting	Series
3/2 NO-NC	1/8" - 1/4" O.D. tube receptacle	1.2 C_v	Manifold base "plug-in"	

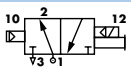
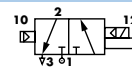
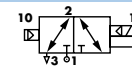
OPERATIONAL BENEFITS

1. 3-way valve with 4-way integral pilot.
2. 10 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1.2 C_v).
4. Fast, repeatable response times.
5. Maximum shifting forces in both directions.



33
34
36
32
37
38
52
67
69
44
46
42
47
48P

HOW TO ORDER

Port size	Pilot air	NO valve	NC valve	Universal valve
				
Valve less base	Internal	38B-BMA-000-G XX P- XXX	38B-AMA-000-G XX P- XXX	
	External	38B-BMB-000-G XX P- XXX	38B-AMB-000-G XX P- XXX	38B-GMB-000-G XX P- XXX
1/8" NPTF	Internal	38B-BMA-AJA-G XX P- XXX	38B-AMA-AJA-G XX P- XXX	
	External	38B-BMB-AJB-G XX P- XXX	38B-AMB-AJB-G XX P- XXX	38B-GMB-BJB-G XX P- XXX
1/4" O.D. Tube receptacle	Internal	38B-BMA-EJA-G XX P- XXX	38B-AMA-EJA-G XX P- XXX	
	External	38B-BMB-EJB-G XX P- XXX	38B-AMB-EJB-G XX P- XXX	38B-GMB-EJB-G XX P- XXX

Note : Above codes are for side port.

STANDARD SOLENOID OPERATOR >

G **XX** P-**XXX***

XX Voltage	X Manual operator	XX Electrical connection
AA 120 VAC (2.5W)	1 Non-locking recessed	SA Base plug-in
DA 24 VDC (1.0W)	2 Locking recessed	SJ Base plug-in with light
DC 24 VDC (1.8W)		SS Base plug-in with rectifier & light & ground
DD 24 VDC (2.5W)		
DF 24 VDC (4.0W)		

Note : AC voltage requires connector with rectifier.

* Other options available, see page 311.

Latching solenoid also available, see page 61.

Washdown capability is possible, consult factory for modification number.

OPTIONS

Base only :

38B-000-**xxx**
(i.e. 38B-000-AJA)

Base Configuration :

38B-**xxx-xJx-Gxx** P-**xxx**

- J** Manifold base – Side port
- K** Manifold base – Bottom port
- L** Left end manifold base – Side port
- M** Left end manifold base – Bottom port
- N** Right end manifold base – Side port
- P** Right end manifold base – Bottom port

Note : Manifold assemblies consist of (1) left end manifold, (1) right end manifold and middle station manifolds (options "J" or "K").

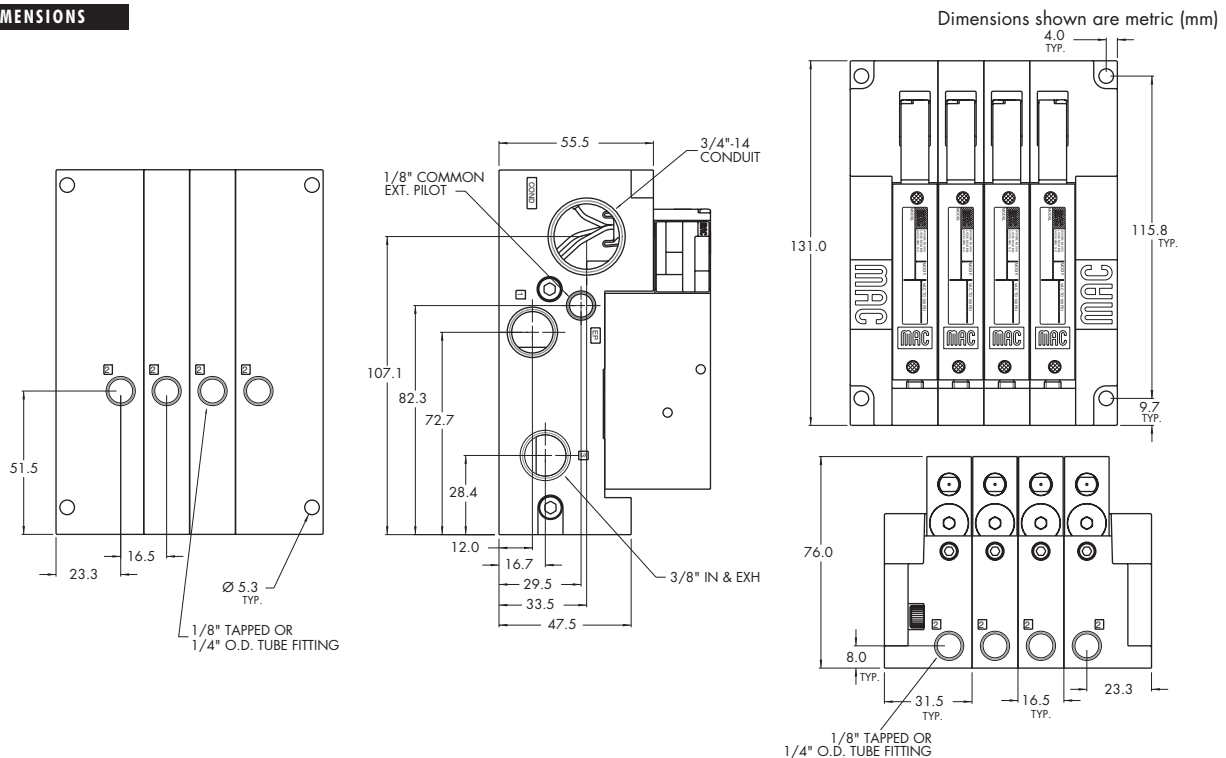
48
400
92
93
ISO 01
ISO 02
ISO 1
ISO 2
ISO 3

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal Pilot : 20 to 120 PSI External Pilot : Vacuum to 120 PSI
Pilot pressure :	20 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 :	1/8" bottom port: (1.2 C _v) - 1/8" side port: (1.0 C _v) - 1/4" tube receptacle: (0.85 C _v)
Coil :	Class A continuous duty, #22 AWG x 12 base leads
Voltage range :	-15% to +10% of nominal voltage
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

Options : • BSPP threads

DIMENSIONS



Codification table for voltages / Manual operator / Electrical connection

VALVE CODE > **G XX X-X XX**
1 2 3 4

OPTIONS AVAILABLE FOR

- Solenoid valves 32, 34, 38, 42, 44 & 48 Series

1. VOLTAGE

G-XX X-X XX	VOLTAGE	
AA	120 VAC (2.5W)	Requires electrical connector with rectifier
AC	24 VAC (4.0W)	Requires electrical connector with rectifier
DA	24 VDC (1.0W)	
DC	24 VDC (1.8W)	
DD	24 VDC (2.5W)	
DE	24 VDC (3.0W)	
DF	24 VDC (4.0W)	
DG	12 VDC (1.0W)	
DJ	12 VDC (1.8W)	
DK	12 VDC (2.5W)	
DM	12 VDC (3.0W)	
DN	12 VDC (4.0W)	
DR	6 VDC (1.8W)	
DS	6 VDC (3.0W)	
EB	48 VDC (1.8W)	
EC	48 VDC (3.0W)	
ED	120 VDC (2.5W)	
GD	12 VDC (0.5W)	34 series only
GE	24 VDC (0.5W)	34 series only

2. WIRE LENGTH

G-XX X-X XX	WIRE LENGTH	
0	No lead wires	(used only with "KJ" & "KM" connectors)
A	18" coil leads	
B	24" coil leads	
C	36" coil leads	
D	48" coil leads	
E	72" coil leads	
F	96" coil leads	
G	120" coil leads	
H	144" coil leads	
I	18" base leads	
2	24" base leads	
3	36" base leads	
4	48" base leads	
5	72" base leads	
6	96" base leads	
7	120" base leads	

3. MANUAL OPERATOR

G-XX X-X XX	MANUAL OPERATOR
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

4. ELECTRICAL CONNECTION

G-XX X-X XX	ELECTRICAL CONNECTION
BA	Flying leads
BB	BA with ground wire
BC	BA with light
BD	BA with light and ground wire
BE	BA with suppression diode
BF	BA with suppression diode and ground wire
BG	BA with suppression diode and light
BH	BA with suppression diode, light and ground wire
BN	BA with suppression diode and blocking diode
BP	BA with suppression diode, blocking diode and ground wire
BR	BA with suppression diode, blocking diode and light
BS	BA with suppression diode, blocking diode, light and ground wire
GA	MAC JAC Solenoid plug-in
GB	MAC JAC Solenoid plug-in w/Diode
GC	MAC JAC Solenoid plug-in w/MOV
GD	MAC JAC Solenoid plug-in w/LED
GE	MAC JAC Solenoid plug-in w/Diode & LED
GF	MAC JAC Solenoid plug-in w/MOV & LED
GG	MAC JAC Solenoid plug-in w/Rectifier
GH	MAC JAC Solenoid plug-in w/Rectifier & LED
KA	Solenoid plug-in wire assembly
KB	KA with ground
KC	KA with rectifier and light
KD	KA with rectifier, light and ground
KE	KA with suppression diode
KF	KA with suppression diode and ground
KJ	Solenoid plug-in housing without wire assembly
KM	Solenoid plug-in housing with ground pin without wire assembly
KN	KA with suppression diode and blocking diode
KP	KA with suppression diode, blocking diode and ground
KT	KA with light
KU	KA with light and ground
KV	KA with suppression diode and light
KW	KA with suppression diode, light and ground
KX	KA with suppression diode, blocking diode and light
KY	KA with suppression diode, blocking diode, light & ground

ELECTRICAL CONNECTION FOR PLUG-IN VALVES

G-XX X-X XX	PLUG-IN OPTIONS
SB	Base plug-in with ground
SC	Base plug-in with suppression and blocking diode
SD	Base plug-in with suppression and blocking diode and ground
SE	Base plug-in with MOV
SF	Base plug-in with MOV and ground
SG	Base plug-in with rectifier
SH	Base plug-in with rectifier and ground
SK	Base plug-in with light and ground
SL	Base plug-in with suppression and blocking diode and light
SM	Base plug-in with suppression and blocking diode with light and ground
SN	Base plug-in with MOV and light
SP	Base plug-in with MOV and light with ground
SR	Base plug-in with rectifier and light