

®

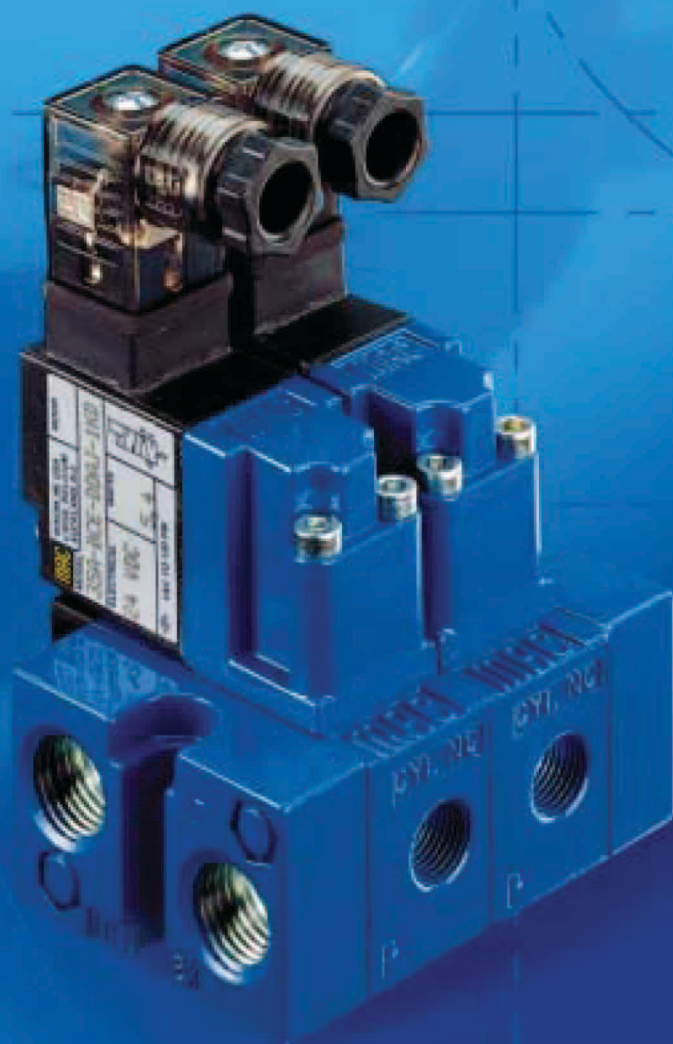
MAC

V A L V E S



LDA

Solutions for Life



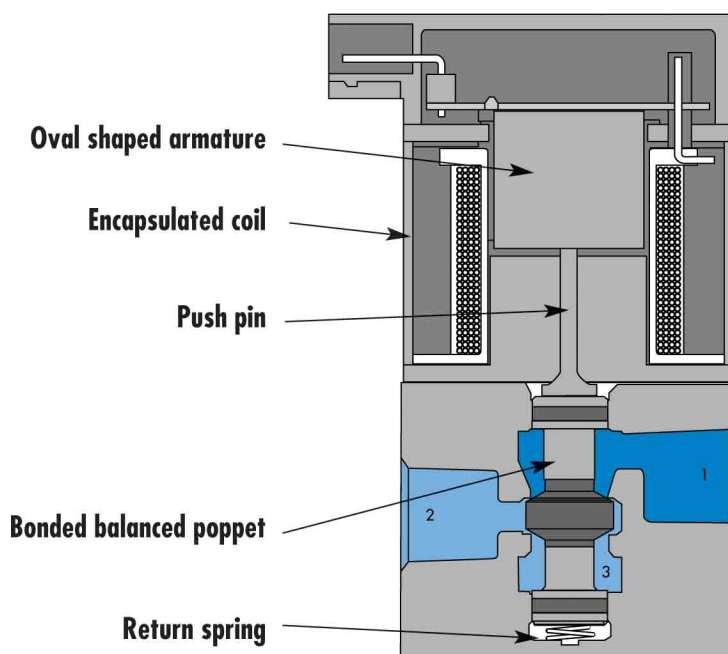
A i r V a l v e s

Individual mounting

Inline	
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Manifold mounting

Stacking	Manifold base "plug-in"	Manifold base "plug-in" with pressure regulators
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SERIES FEATURES

- Patented high force MACSOLENOID® for fastest possible response times.
- Bonded balanced poppet for high flow, precise repeatability, and consistent operation.
- Balanced poppet permits versatility in function — may be used as 3-way or 2-way normally open or normally closed and may be used for vacuum, divertor, or selector applications.
- Extremely high cycle rate capability.
- Use on lube or non-lube service.
- Manual overrides as standard.
- Various solenoid enclosures and plug-in connectors.
- Optional surge suppression available.
- Low wattage DC solenoids — down to 1.8 watts.
- Rectified AC voltage.

Series

33

34

36

32

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42

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48P

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400

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93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

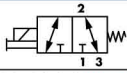
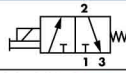
Function	Port size	Flow (Max)	Individual mounting	Series
3/2	1/8"	0.3 C _v	Inline	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Universal valve	NC only valve
		
1/8" NPTF	36A-AAA-J XXX-XXX	36A-AAB-J XXX-XXX

SOLENOID OPERATOR >

J **XXX-XXX*** (-G) Add "G" for ground

XX	Voltage	X	Lead wire length	X	Manual operator	XX	Electrical connection
AA	120 VAC (5.4W)	A	18"	1	Non-locking recessed	BA	Flying leads
DA	24 VDC (5.4W)	B	24"	2	Locking recessed	GA	MAC JAC solenoid plug-in
DB	12 VDC (5.4W)	C	36"			GB	MAC JAC solenoid plug-in with diode
DC	24 VDC (2.4W)					GD	MAC JAC solenoid plug-in with light
DD	12 VDC (2.4W)					GG	MAC JAC solenoid plug-in with rectifier

* Other options available, see page 317.

Note : - AC voltage requires connector with rectifier.
- With the MAC JAC, washdown capability is possible. Consult factory for washdown modification number.

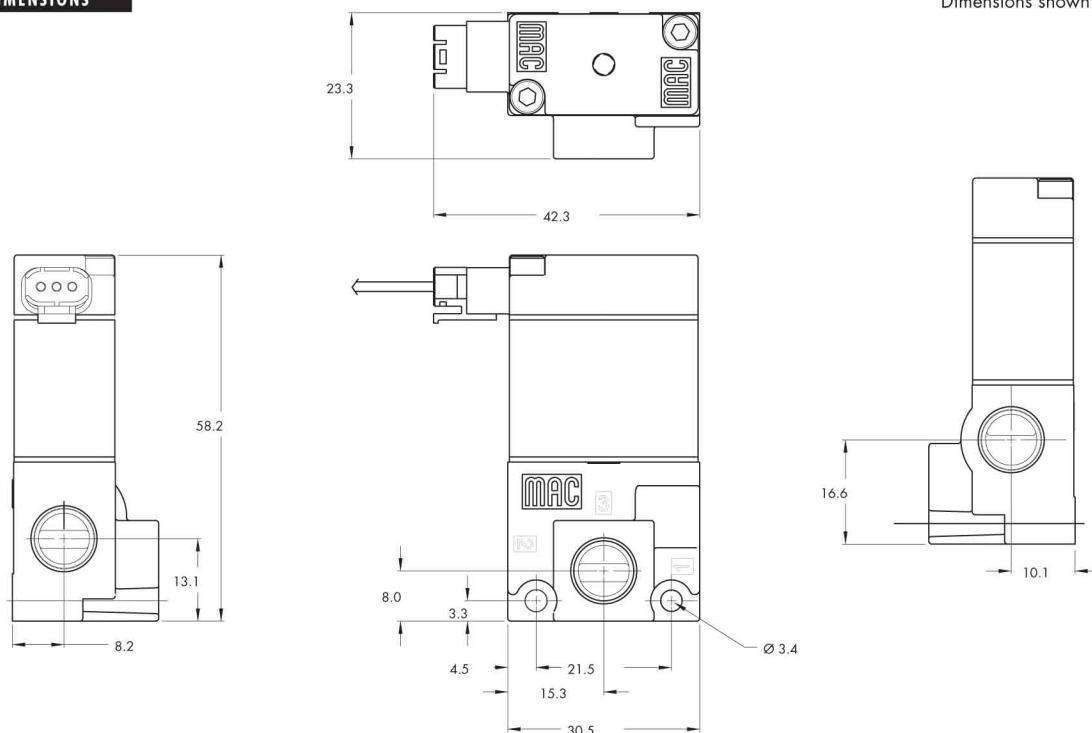
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 Watt: (0.15 C _v), 2.4 Watt: (0.15 C _v), 5.4 Watt: (0.30 C _v)
Coil :	Class A wire (#22 AWG x 12), continuous duty
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	5.4 W – 2.4 W – 1.8 W

Option : • BSPP threads

DIMENSIONS

Dimensions shown are metric (mm)



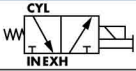
Function	Port size	Flow (Max)	Individual mounting	Series
3/2	1/8" - # 10-32	0.3 C_v	Stacking	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	NC only stacking	NC stacking Universal poppet	NO stacking Universal poppet
			
1/8" NPTF	36A-SAB-J xxx-xxx	36A-SAC-J xxx-xxx	36A-SAD-J xxx-xxx
# 10-32	36A-SBB-J xxx-xxx	36A-SBC-J xxx-xxx	36A-SBD-J xxx-xxx

SOLENOID OPERATOR >

J **xxx-xxx*** (-G) Add "G" for ground

XX	Voltage	X	Lead wire length	X	Manual operator	XX	Electrical connection
AA	120 VAC (5.4W)	A	18"	1	Non-locking recessed	BA	Flying leads
DA	24 VDC (5.4W)	B	24"	2	Locking recessed	GA	MAC JAC solenoid plug-in
DB	12 VDC (5.4W)	C	36"			GB	MAC JAC solenoid plug-in with diode
DC	24 VDC (2.4W)					GD	MAC JAC solenoid plug-in with light
DD	12 VDC (2.4W)					GG	MAC JAC solenoid plug-in with rectifier

* Other options available, see page 317.

Note : - AC voltage requires connector with rectifier.
- With the MAC JAC, washdown capability is possible. Consult factory for washdown modification number.
End plate kit required (port size 1/4") : M-36001-01.

BODY TYPE OPTIONS

36A-SAB-J**xxx-xxx**

- S Stacking body
- T Stacking body with bottom inlet

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 Watt: (0.15 C _v), 2.4 Watt: (0.15 C _v), 5.4 Watt: (0.30 C _v)
Coil :	Class A wire (#22 AWG x 12), continuous duty
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	5.4 W – 2.4 W – 1.8 W

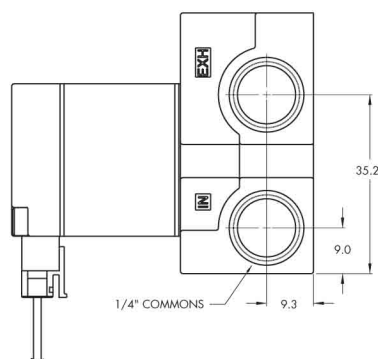
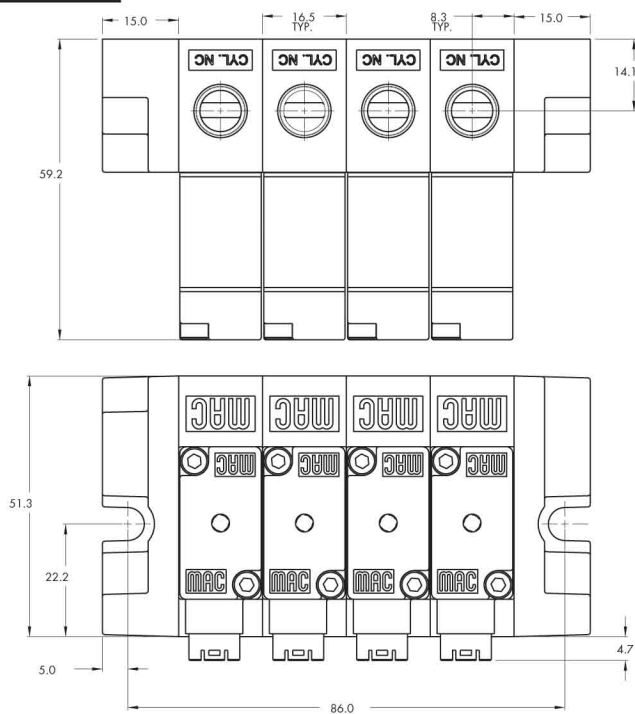
Option : • BSPP threads

Spare parts : • Inlet & exhaust isolator plate : N-36001 • Inlet isolator : N-36002
• Exhaust isolator : N-36003 • Tie rod (x2) : 79411

DIMENSIONS

Dimensions shown are metric (mm)

Note: Isolator adds 2.5 mm to length of stack.



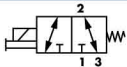
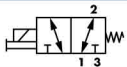
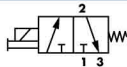
Function	Port size	Flow (Max)	Individual mounting	Series
3/2	1/8" - 5/32 Pressed-in tube receptacle	0.3 C_v	Manifold base "plug-in"	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Universal Valve Normally Closed	Universal Valve Normally Open	Normally Closed Only
			
Valve less base	36A-J00-00-J xxP-xxx	36A-K00-00-J xxP-xxx	36A-L00-00-J xxP-xxx
1/8" NPTF	36A-JSA-AE-J xxP-xxx	36A-KSA-AF-J xxP-xxx	36A-LSA-AE-J xxP-xxx
5/32 tube receptacle	36A-JSF-AE-J xxP-xxx	36A-KSF-AF-J xxP-xxx	36A-LSF-AE-J xxP-xxx

SOLENOID OPERATOR ➤

J **xx** P-**xxx*** (-G) Add "G" for ground

xx Voltage	x Manual operator	xx Electrical connection
AA 120 VAC (5.4W)	1 Non-locking recessed	FA Base plug-in
DA 24 VDC (5.4W)	2 Locking recessed	FB Base plug-in with diode
DB 12 VDC (5.4W)		FG Base plug-in with rectifier
DC 24 VDC (2.4W)		
DD 12 VDC (2.4W)		

* Other options available, see page 317.

Note : AC voltage requires connector with rectifier.

Example : Manifold base only : 36A-0SA-AE (Normally closed manifold base).

End plate kit required (port size 1/4") : M-46003-01.

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48P

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ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

TECHNICAL DATA

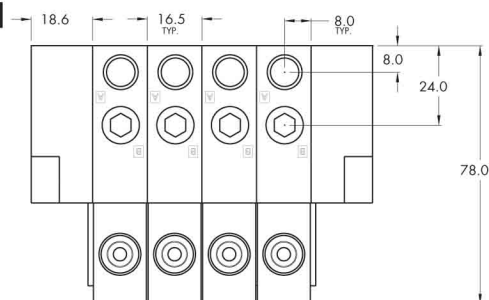
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 µ
Temperature range :	0°F to 120°F (-18°C to +50°C)
Flow :	1.8W : (0.20 C _v) – 2.4W : (0.20 C _v) – 5.4W : (0.30 C _v)
Coil :	Class A continuous duty, #22 AWG x 12 base leads
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult Factory
Power :	5.4 W – 2.4 W – 1.8 W

Option : • BSPP threads

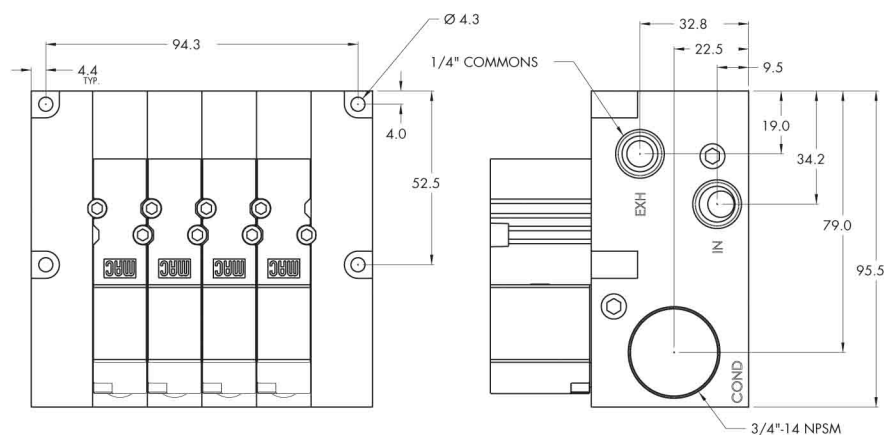
Spare parts : • Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002
• Tie rod (x2) : 79443

DIMENSIONS

Dimensions shown are metric (mm)



Note: For Normally closed manifold the "A" port is plugged.
For Normally open manifold the "B" port is plugged.



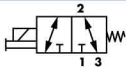
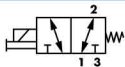
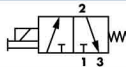
Function	Port size	Flow (Max)	Individual mounting	Series
3/2	1/8" - 5/32 Pressed-in tube receptacle	0.3 C_v	Manifold base "plug-in" with pressure regulators	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Universal Valve Normally Closed	Universal Valve Normally Open	Normally Closed Only
			
Valve less base	36A-J00-00-J xxP-xxx	36A-K00-00-J xxP-xxx	36A-L00-00-J xxP-xxx
1/8" NPTF	36A-JSA-AG-J xxP-xxx	36A-KSA-AH-J xxP-xxx	36A-LSA-AG-J xxP-xxx
5/32 tube receptacle	36A-JSF-AG-J xxP-xxx	36A-KSF-AH-J xxP-xxx	36A-LSF-AG-J xxP-xxx

SOLENOID OPERATOR ➤

J **xxP-xxx*** (-G) Add "G" for ground

XX Voltage	X Manual operator	XX Electrical connection
AA 120 VAC (5.4W)	1 Non-locking recessed	FA Base plug-in
DA 24 VDC (5.4W)	2 Locking recessed	FB Base plug-in with diode
DB 12 VDC (5.4W)		FG Base plug-in with rectifier
DC 24 VDC (2.4W)		
DD 12 VDC (2.4W)		

* Other options available, see page 317.
Note : AC voltage requires connector with rectifier.

OPTIONS

36A-JSA-AG-JxxP-xxx

- G** NC manifold & regulator with slotted stem adjustment
- S** NC manifold & regulator with locking slotted stem adjustment
- J** NC manifold & regulator with knob adjustment

36A-KSA-AH-JxxP-xxx

- H** NO manifold & regulator with slotted stem adjustment
- T** NO manifold & regulator with locking slotted stem adjustment
- K** NO manifold & regulator with knob adjustment

Note : All manifold bases are only available with a bottom cylinder port.

Example : Manifold base only : 36A-0SA-AJ (Normally closed manifold base & regulator with knob).

End plate kit required (port size 1/4") : M-46003-01.

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48P

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ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

TECHNICAL DATA

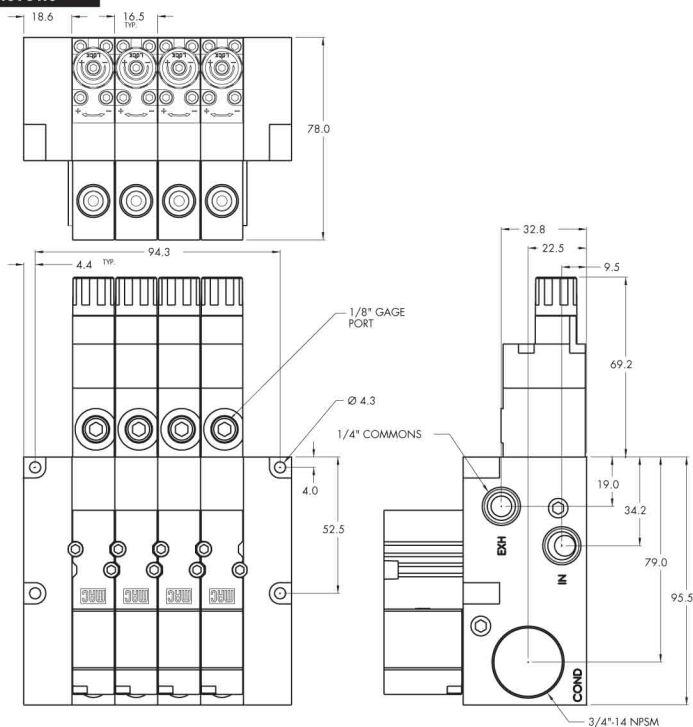
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 µ
Temperature range :	0°F to 120°F (-18°C to +50°C)
Flow :	1.8W : (0.20 C _v) – 2.4W : (0.20 C _v) – 5.4W : (0.30 C _v)
Coil :	Class A continuous duty, #22 AWG x 12 base leads
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult Factory
Power :	5.4 W – 2.4 W – 1.8 W

Option : • BSPP threads

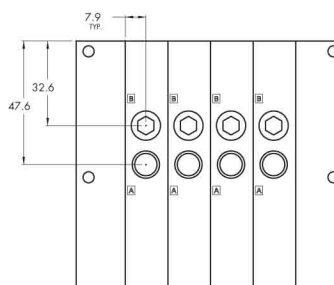
Spare parts : • Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002
• Tie rod (x2) : 79443

DIMENSIONS

Dimensions shown are metric (mm)



Note: For Normally closed manifold the "A" port is plugged.
For Normally open manifold the "B" port is plugged.





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

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

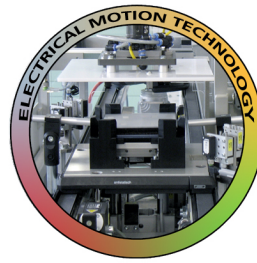
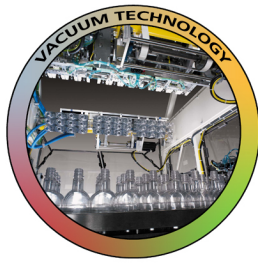
CONNECTORS FOR NON PLUG-IN VALVES

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

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



We look forward to your application.

LDA Belgium

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