

Handhabungstechnik
Motore & Getriebe
Pneumatik
Hydraulik
Systemlösungen

as-tec
Mechatronik GmbH

Produktkatalog

MAC 3/2 Wegeventile

Serie 36 - 1/8"



Über Uns

Die Firma **as-tec Mechatronik GmbH** ist ein herstellerunabhängiger Lieferant von Systemlösungen und Komponenten für pneumatische, hydraulische und elektrische Antriebs- und Steuerungstechnik.

Wir bieten unseren Kunden für ihre Projekte im Maschinen- und Anlagenbau, beziehungsweise für die Instandhaltung ihrer Fertigungseinrichtungen die am besten geeigneten Produkte aus unserem herstellerübergreifenden Produktportfolio.

In unserer Werkstätte produzieren wir kundenspezifische Lösungen wie zum Beispiel Ventileinheiten, Schaltschränke und Sonderzylinder. Weiters halten wir sowohl Standardkomponenten als auch speziell für Kunden bevorratete Produkte auf Lager.

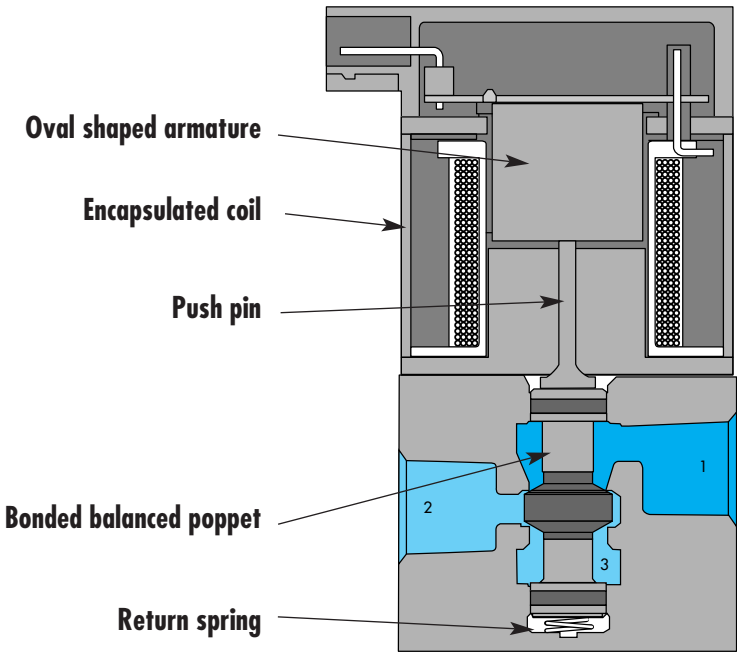


Individual mounting

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

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ISO 01

ISO 02

ISO 1

ISO 2

ISO 3



Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Individual mounting	Series
3/2	G1/8"	300 NI/min	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
G1/8"	36A-ACA-J xxx-xxx	36A-ACB-J xxx-xxx

SOLENOID OPERATOR >

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

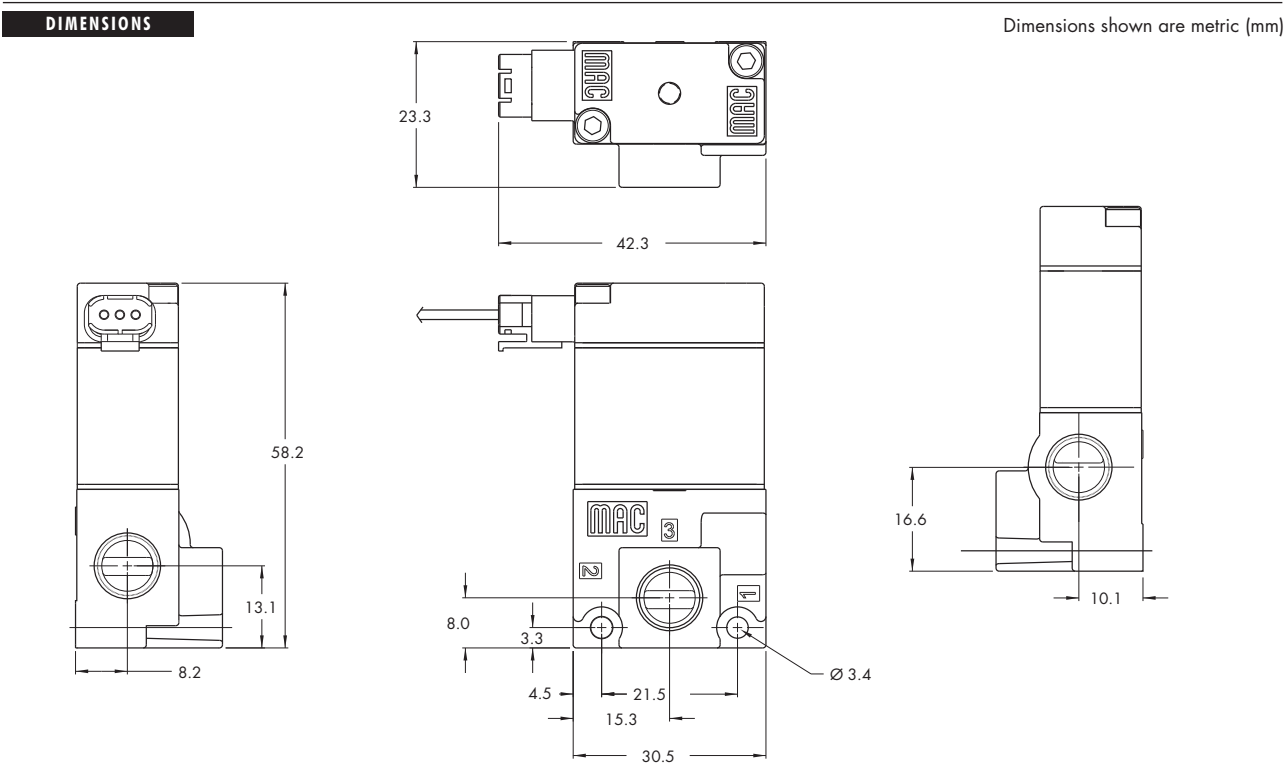
XX	Voltage	X	Lead wire length	X	Manual operator	XX	Electrical connection
AA	120V~/5,4W	A	45 cm	1	Non-locking	BA	Flying leads
DA	24V~/5,4W	B	60 cm	2	Locking	GA	MAC JAC solenoid plug-in
DB	12V~/5,4W	C	90 cm			GB	MAC JAC solenoid plug-in with diode
DC	24V~/2,4W					GD	MAC JAC solenoid plug-in with light
DD	12V~/2,4W					GG	MAC JAC solenoid plug-in with rectifier

* Other options available, see page 393.
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 8 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
Orifice :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	G1/8" : 300 Nl/min (Cv 0 ,3)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4 W – 2,4 W – 1,0 W

Option :

- NPTF threads





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Manifold mounting	Series
3/2	G1/8" - M5	300 NI/min	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
G1/8"	36A-SCB-J xxx-xxx	36A-SCC-J xxx-xxx	36A-SCD-J xxx-xxx
M5	36A-SDB-J xxx-xxx	36A-SDC-J xxx-xxx	36A-SDD-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 120V~/5,4W	A 45 cm	1 Non-locking	BA Flying leads
DA 24V~/5,4W	B 60 cm	2 Locking	GA MAC JAC solenoid plug-in
DB 12V~/5,4W	C 90 cm		GB MAC JAC solenoid plug-in with diode
DC 24V~/2,4W			GD MAC JAC solenoid plug-in with light
DD 12V~/2,4W			GG MAC JAC solenoid plug-in with rectifier

* Other options available, see page 393.
Note : - AC voltage requires connector with rectifier.
- With the MAC JAC, washdown capability is possible. Consult factory for washdown modification number.

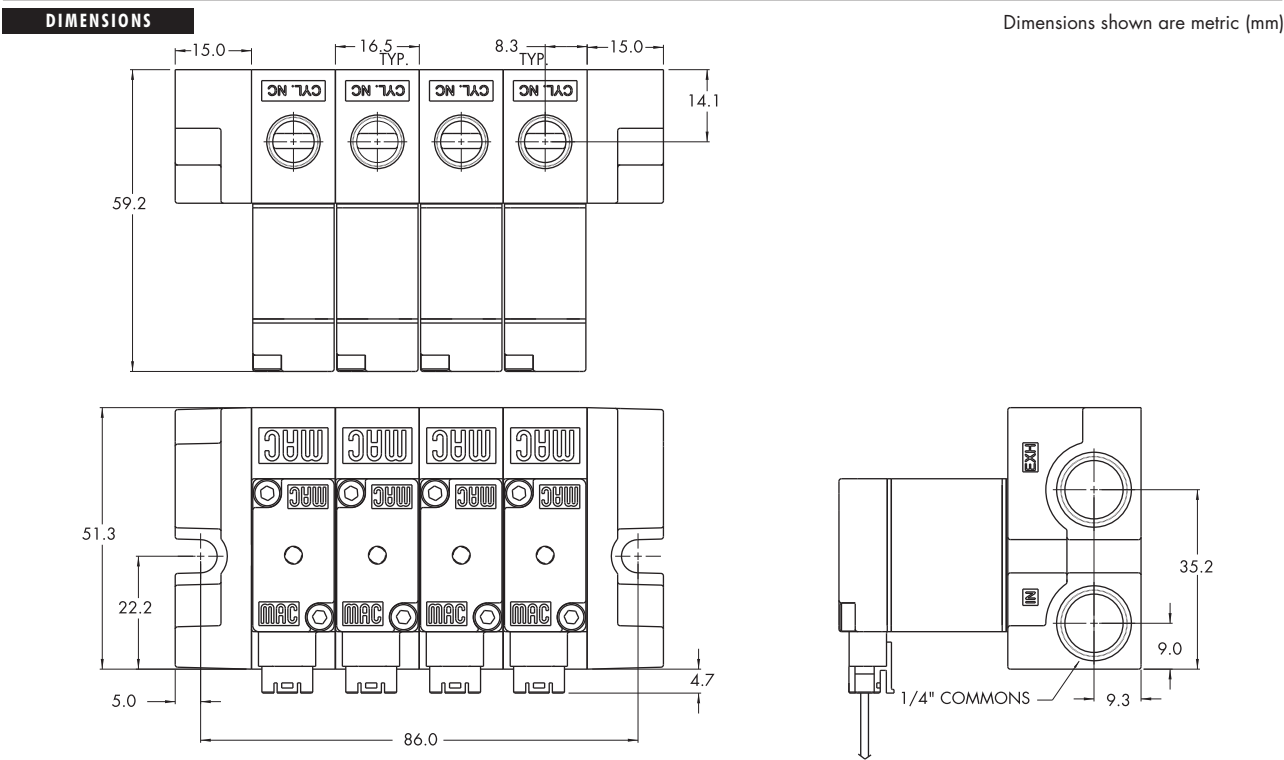
End plate kit required (port size G1/4") : M-36001-01P.

BODY TYPE OPTIONS

36A-SCB-Jxxx-xxx
S Stacking body
T Stacking body with bottom inlet

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 8 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
Orifice :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	G1/8" : 300 NI/min (Cv 0,3) – M5 : 300 NI/min (Cv 0,3)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4 W – 2,4 W – 1,0 W

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



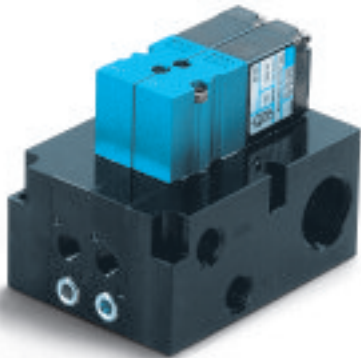


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Manifold mounting	Series
3/2	G1/8"	300 NI/min	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
G1/8"	36A-JSC-AE-J xxP-xxx	36A-KSC-AF-J xxP-xxx	36A-LSC-AE-J xxP-xxx

SOLENOID OPERATOR ➤

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

xx Voltage	x Manual operator	xx Electrical connection
AA 120V~/5,4W	1 Non-locking	FA Base plug-in
DA 24V=/5,4W	2 Locking	FB Base plug-in with diode
DB 12V=/5,4W		FG Base plug-in with rectifier
DC 24V=/2,4W		
DD 12V=/2,4W		

* Other options available, see page 393.
Note : AC voltage requires connector with rectifier.

Example : Manifold base only : 36A-0SC-AC (Normally closed manifold base).

End plate quit required (port size G1/4") : M-46003-01P.

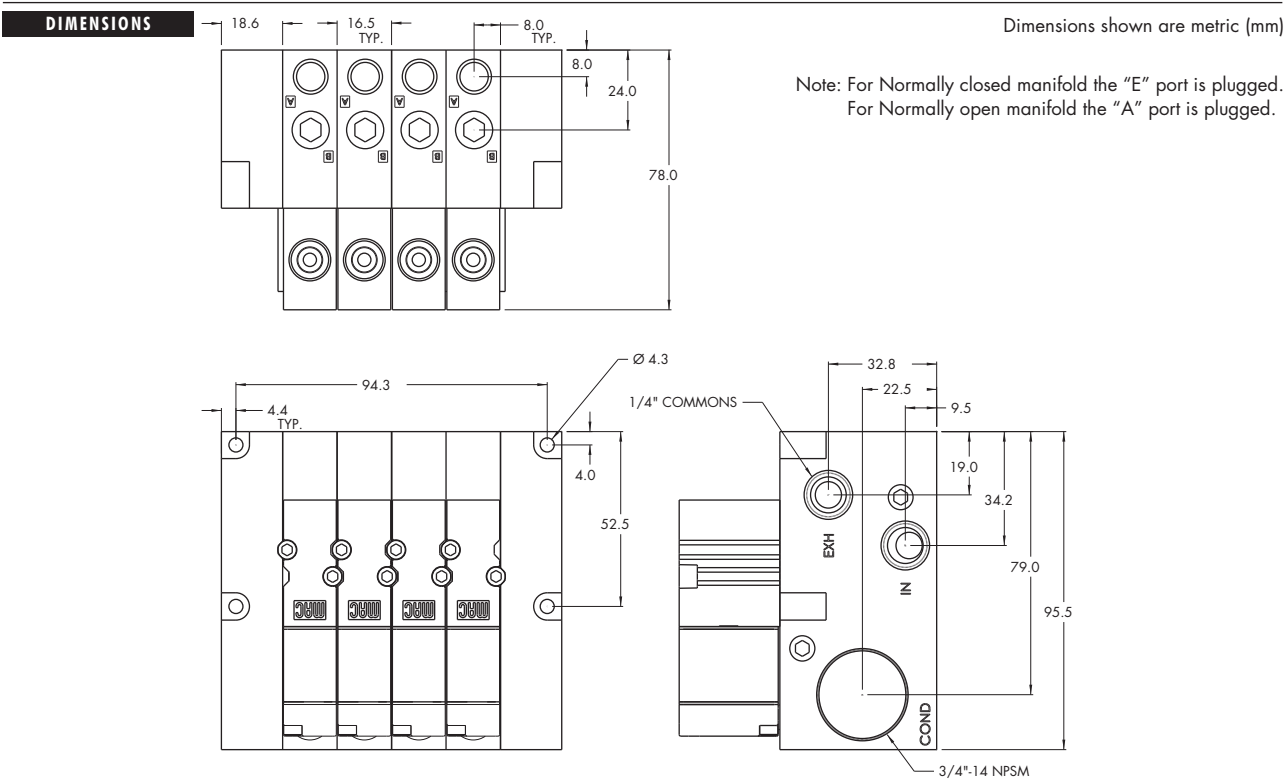
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ISO 01
ISO 02
ISO 1
ISO 2
ISO 3

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 8 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
Orifice :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	1,8W : 200 NI/min (Cv 0,20) – 2,4W : 200 NI/min (Cv 0,20) – 5,4W : 300 NI/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4 W – 2,4 W – 1,8 W

- Option :

- NPTF threads
- Spare parts :

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





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Manifold mounting	Series
3/2	G1/8"	300 NI/min	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
G1/8"	36A-JSC-AG-J xxP-xxx	36A-KSC-AH-J xxP-xxx	36A-LSC-AG-J xxP-xxx

SOLENOID OPERATOR ➤

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

XX Voltage	X Manual operator	XX Electrical connection
AA 120V~/5,4W	1 Non-locking	FA Base plug-in
DA 24V~/5,4W	2 Locking	FB Base plug-in with diode
DB 12V~/5,4W		FG Base plug-in with rectifier
DC 24V~/2,4W		
DD 12V~/2,4W		

* Other options available, see page 393.
Note : AC voltage requires connector with rectifier.

OPTIONS

36A-JSC-AG-Jxx P-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
- 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-0SC-AJ (Normally closed manifold base & regulator with knob).
End plate quit required (port size G1/4") : M-46003-01P.

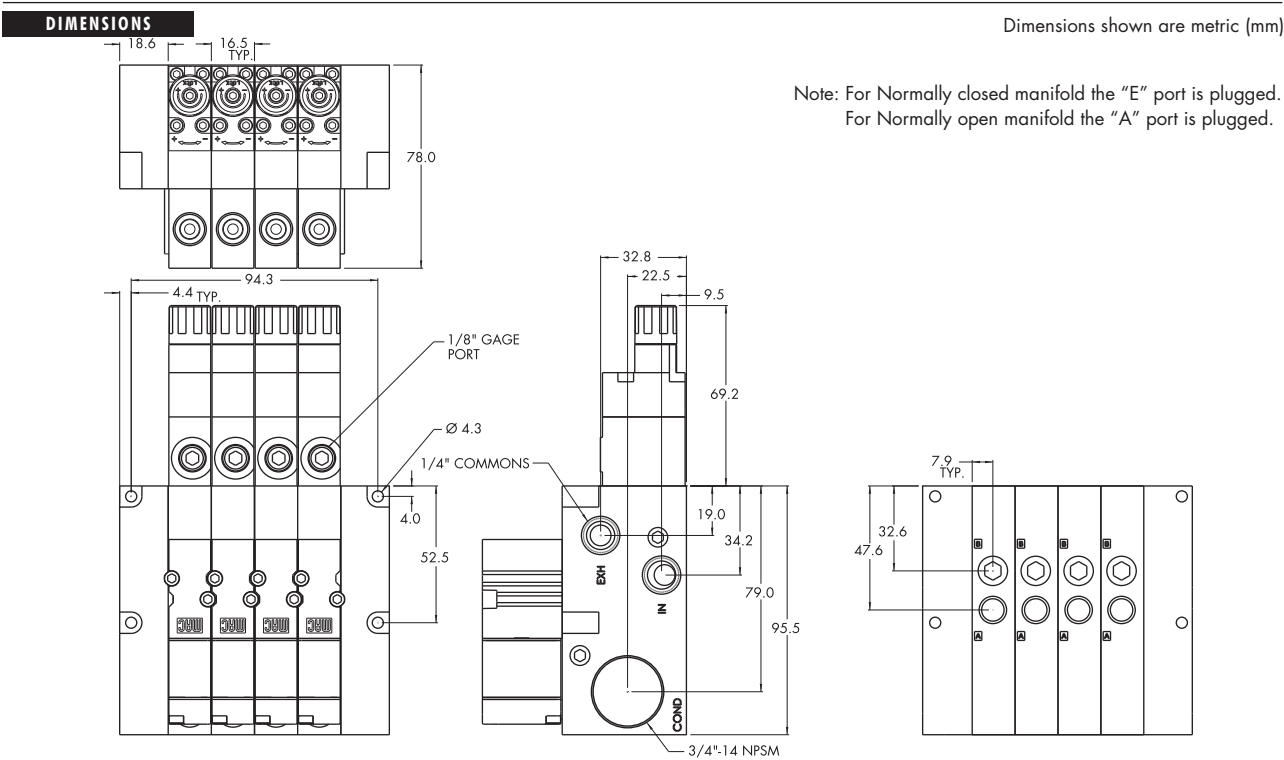
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ISO 01
ISO 02
ISO 1
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ISO 3

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 8 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
Orifice :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	1,8W : 200 NI/min (Cv 0,20) – 2,4W : 200 NI/min (Cv 0,20) – 5,4W : 300 NI/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4 W – 2,4 W – 1,8 W

- Option :

- NPTF threads
- Spare parts :

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



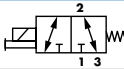
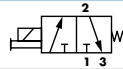
Function	Port size	Flow [Max]	Individual mounting	Series
3/2	1/8"	0.3 C_v	Inline	

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.

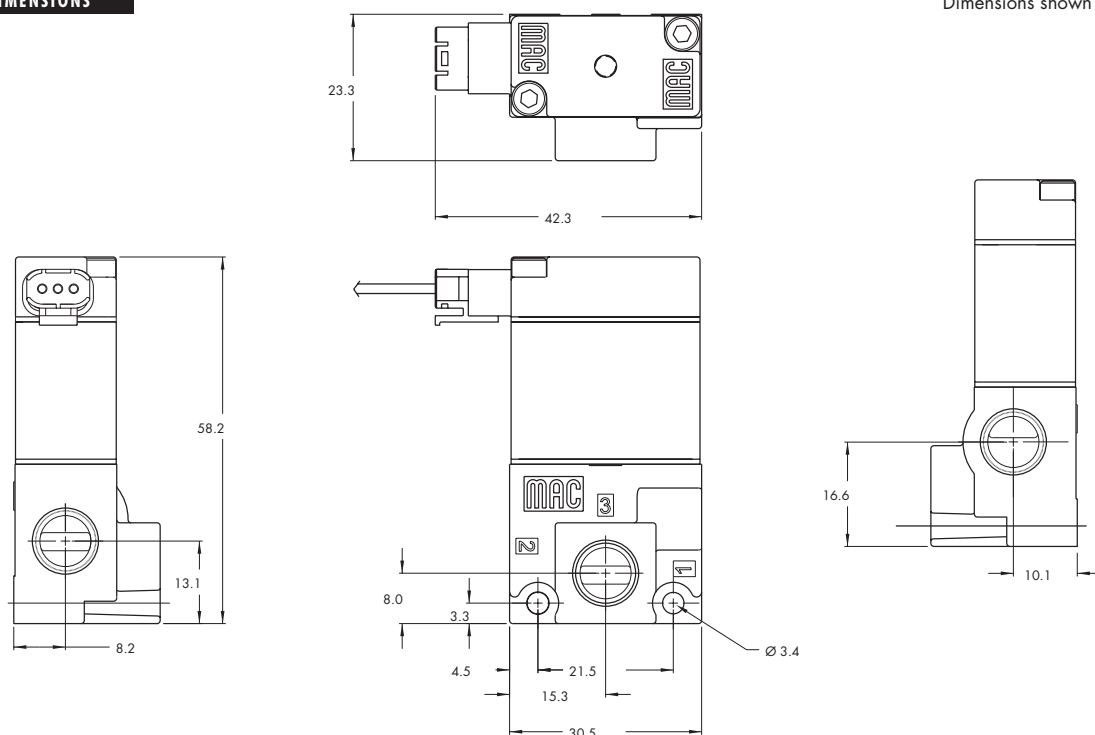
TECHNICAL DATA

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.



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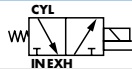
ISO 02

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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

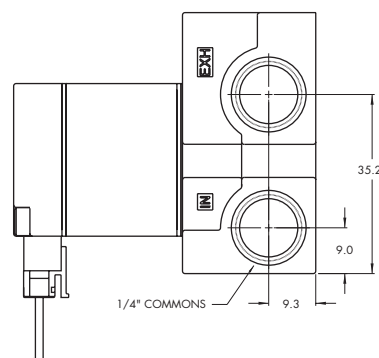
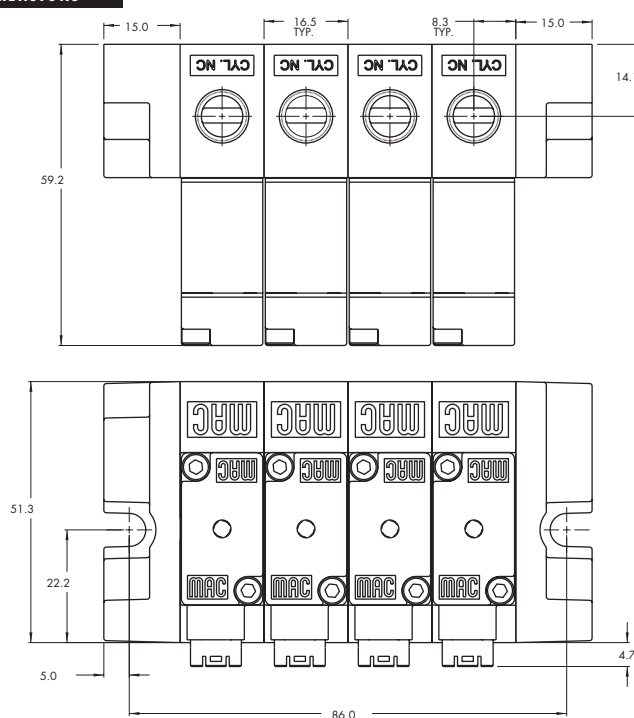
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 µ
Temperature range :	0°F to 120°F (-18°C to +50°C)
Flow :	1.8 Watt: (0.15 C _v), 2.4 Watt: (0.15 C _v), 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.



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ISO 01
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ISO 2
ISO 3

HOW TO ORDER

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

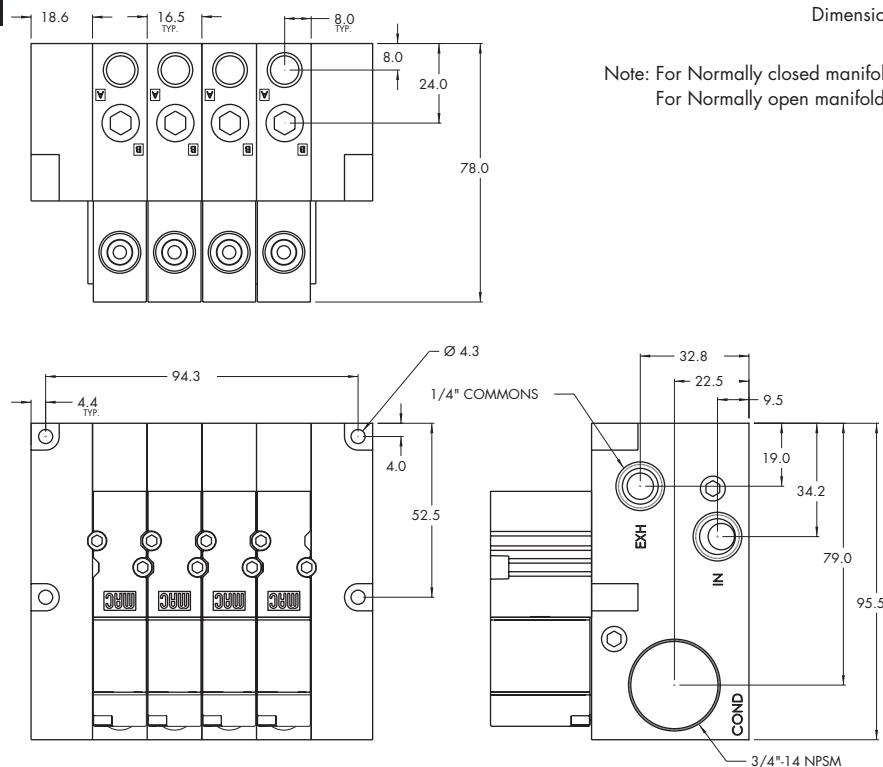
TECHNICAL DATA

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.



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HOW TO ORDER

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

OPTIONS

36A-JSA-AG-J**XX**P-**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-J**XX**P-**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-OSA-AJ (Normally closed manifold base & regulator with knob).

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

TECHNICAL DATA

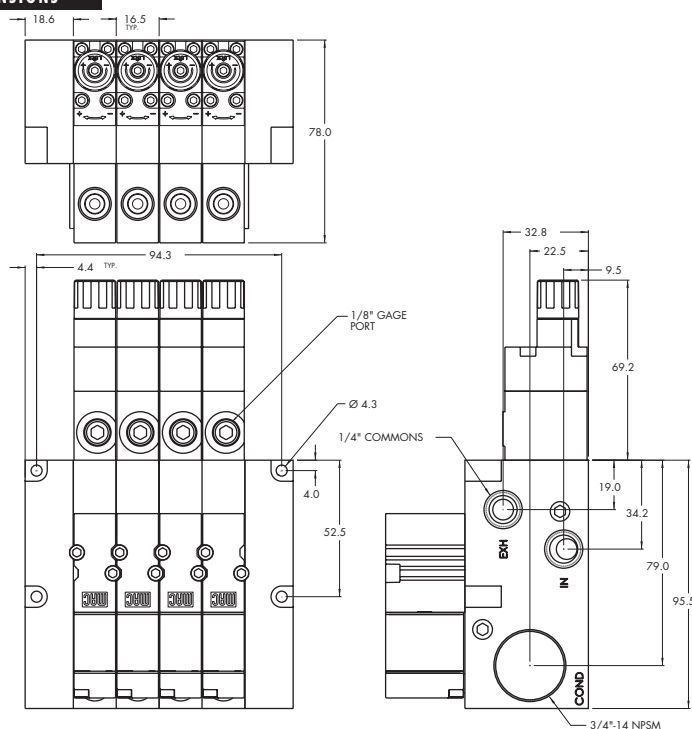
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 µ
Temperature range :	0°F to 120°F (-18°C to +50°C)
Flow :	1.8W : (0.20 C _v) – 2.4W : (0.20 C _v) – 5.4W : (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

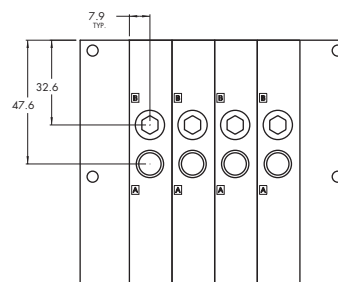
Spare parts : • Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002
• Tie rod (x2) : 79443

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

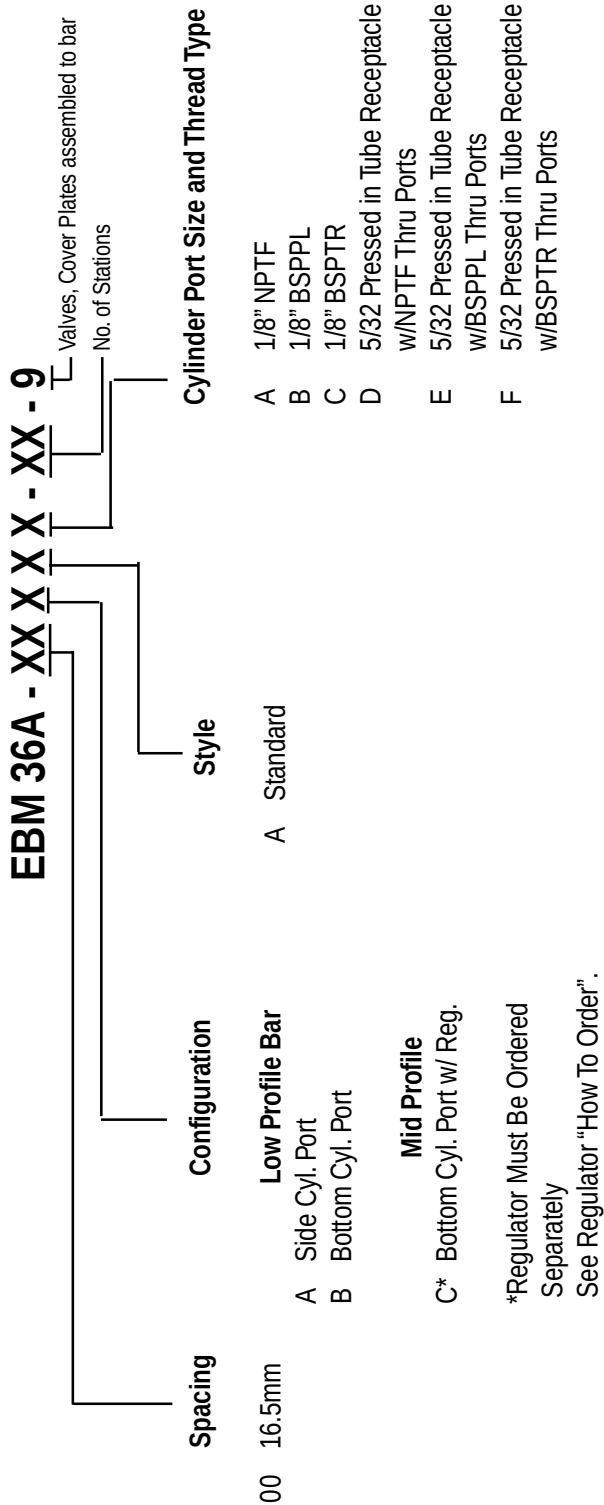
OPTIONS AVAILABLE FOR

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

1. VOLTAGE	
<i>J-XX X-X XX</i>	VOLTAGE
<i>AA</i>	120VAC (5.4W)
<i>AC</i>	24VAC (5.4W)
<i>DE</i>	24VDC (1.8W)
<i>DF</i>	12VDC (1.8W)
<i>DJ</i>	24VDC (1.3W)
<i>DL</i>	12VDC (1.3W)
<i>DR</i>	12VDC (1.0W)*
<i>DU</i>	24VDC (1.0W)*
* Not available on 36 series universal valve	
2. WIRE LENGTH	
<i>J-XX X-X XX</i>	WIRE LENGTH
<i>A</i>	18" coil leads
<i>B</i>	24" coil leads
<i>C</i>	36" coil leads
<i>D</i>	48" coil leads
<i>E</i>	72" coil leads
<i>F</i>	96" coil leads
<i>P</i>	Base plug-in
<i>O</i>	No leads (use with J, K & L type connectors)
3. MANUAL OPERATOR	
<i>J-XX X-X XX</i>	MANUAL OPERATOR
<i>0</i>	No operator
<i>1</i>	Non-locking recessed
<i>2</i>	Locking recessed
<i>3</i>	Non-locking extended
<i>4</i>	Locking extended
4. ELECTRICAL CONNECTION	
<i>J-XX X-X XX</i>	CONNECTORS FOR NON PLUG-IN VALVES
<i>BA</i>	ELECTRICAL CONNECTION
<i>GA</i>	Flying leads
<i>GB</i>	MAC JAC solenoid plug-in
<i>GC</i>	MAC JAC solenoid plug-in with diode
<i>GD</i>	MAC JAC solenoid plug-in with MOV
<i>GE</i>	MAC JAC solenoid plug-in with light
<i>GF</i>	MAC JAC solenoid plug-in with diode and light
<i>GG</i>	MAC JAC solenoid plug-in with MOV and light
<i>GH</i>	MAC JAC solenoid plug-in with rectifier
<i>GJ</i>	MAC JAC solenoid plug-in with rectifier and light
<i>GK</i>	MAC JAC solenoid plug-in - Male only
<i>GL</i>	MAC JAC solenoid plug-in with diode - Male only
<i>GM</i>	MAC JAC solenoid plug-in with MOV - Male only
<i>GN</i>	MAC JAC solenoid plug-in with light - Male only
<i>GP</i>	MAC JAC solenoid plug-in with diode and light - Male only
<i>GR</i>	MAC JAC solenoid plug-in with MOV and light - Male only
<i>GS</i>	MAC JAC solenoid plug-in with rectifier and light - Male only
<i>*JA</i>	Square Connector
<i>*JC</i>	Square Connector with light
<i>*JE</i>	Square Connector with diode
<i>*JF</i>	Square Connector with MOV
<i>*JG</i>	Square Connector with diode/light
<i>*JH</i>	Square Connector with MOV /light
<i>*JK</i>	Square Connector with Rectifier
<i>J-XX X-X XX</i>	CONNECTORS FOR NON PLUG-IN VALVES
<i>*JL</i>	MINI SQUARE PLUG-IN CONNECTORS
<i>*JJ</i>	9.4 MM SPACING BETWEEN PINS
<i>*JB</i>	Mini plug-in
<i>*JD</i>	Mini plug-in with diode
<i>*JN</i>	Mini plug-in with MOV
<i>*JP</i>	Mini plug-in with light
<i>*JR</i>	Mini plug-in with diode and light
<i>*JS</i>	Mini plug-in with MOV and light
<i>*JT</i>	Mini plug-in with rectifier
<i>*JU</i>	Mini plug-in with rectifier and light
<i>*JM</i>	Mini plug-in - Male only
* Not available on manifold or stacking valves	
<i>J-XX X-X XX</i>	CONNECTORS FOR NON PLUG-IN VALVES
<i>KA</i>	MINI SQUARE PLUG-IN CONNECTORS
<i>KB</i>	9.4 MM SPACING BETWEEN PINS
<i>KC</i>	Mini plug-in
<i>KD</i>	Mini plug-in with diode
<i>KE</i>	Mini plug-in with MOV
<i>KF</i>	Mini plug-in with light
<i>KG</i>	Mini plug-in with diode and light
<i>KH</i>	Mini plug-in with MOV and light
<i>KJ</i>	Mini plug-in with rectifier
<i>KK</i>	Mini plug-in with rectifier and light
<i>KL</i>	Mini plug-in - Male only
<i>KM</i>	Mini plug-in with diode - Male only
<i>KN</i>	Mini plug-in with MOV - Male only
<i>KP</i>	Mini plug-in with light - Male only
<i>KR</i>	Mini plug-in with diode and light - Male only
<i>KS</i>	Mini plug-in with MOV and light - Male only
<i>J-XX X-X XX</i>	CONNECTORS FOR NON PLUG-IN VALVES
<i>LA</i>	MINI SQUARE PLUG-IN CONNECTORS
<i>LB</i>	8.0 MM SPACING BETWEEN PINS
<i>LC</i>	ISO SPECIFICATION 15217
<i>LD</i>	Mini plug-in
<i>LE</i>	Mini plug-in with diode
<i>LF</i>	Mini plug-in with MOV
<i>LG</i>	Mini plug-in with light
<i>LH</i>	Mini plug-in with diode and light
<i>LJ</i>	Mini plug-in with MOV and light
<i>LK</i>	Mini plug-in with rectifier
<i>LL</i>	Mini plug-in with rectifier and light
<i>LM</i>	Mini plug-in - Male only
<i>LN</i>	Mini plug-in with diode - Male only
<i>LP</i>	Mini plug-in with MOV - Male only
<i>LR</i>	Mini plug-in with light - Male only
<i>LS</i>	Mini plug-in with diode and light - Male only
<i>J-XX X-X XX</i>	CONNECTORS FOR PLUG-IN VALVES
<i>FA</i>	Base plug-in
<i>FB</i>	Base plug-in with diode
<i>FC</i>	Base plug-in with MOV
<i>FD</i>	Base plug-in with light
<i>FE</i>	Base plug-in with diode and light
<i>FF</i>	Base plug-in with MOV and light
<i>FG</i>	Base plug-in with rectifier
<i>FH</i>	Base plug-in with rectifier and light

How to Order

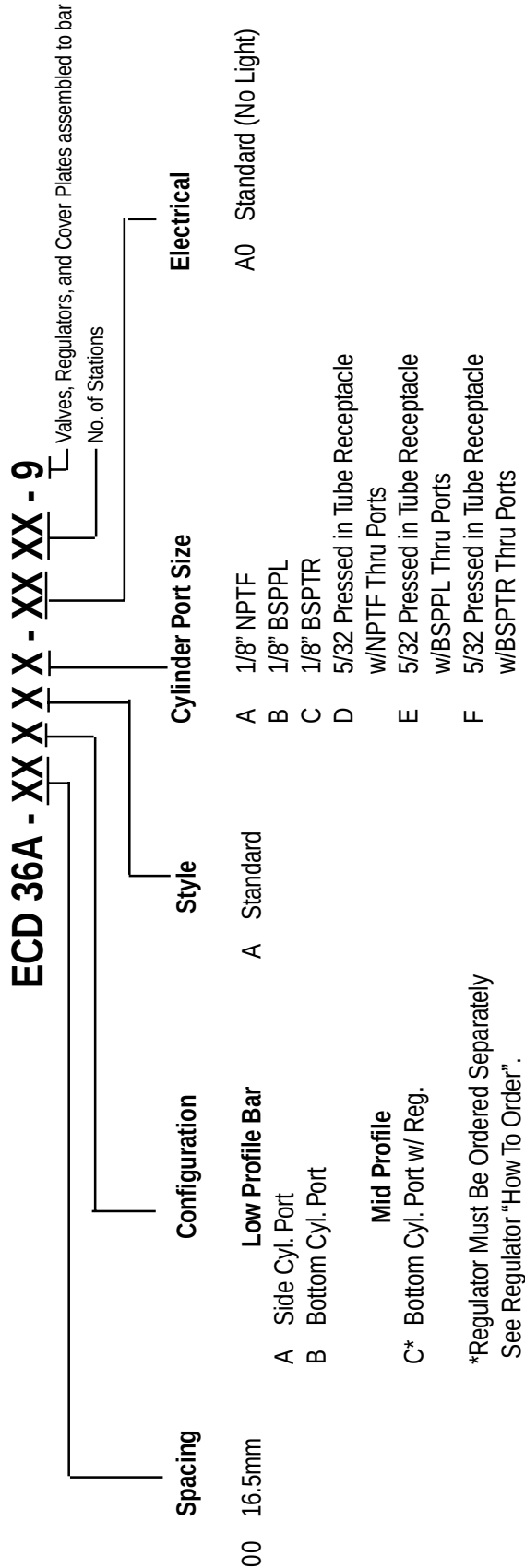
Non Plug In Circuit Bar for 36 Series



- Blank Plate Kits
- M-36002 Valve Cover Plate
 - N-46004 Regulator Cover Plate

How to Order

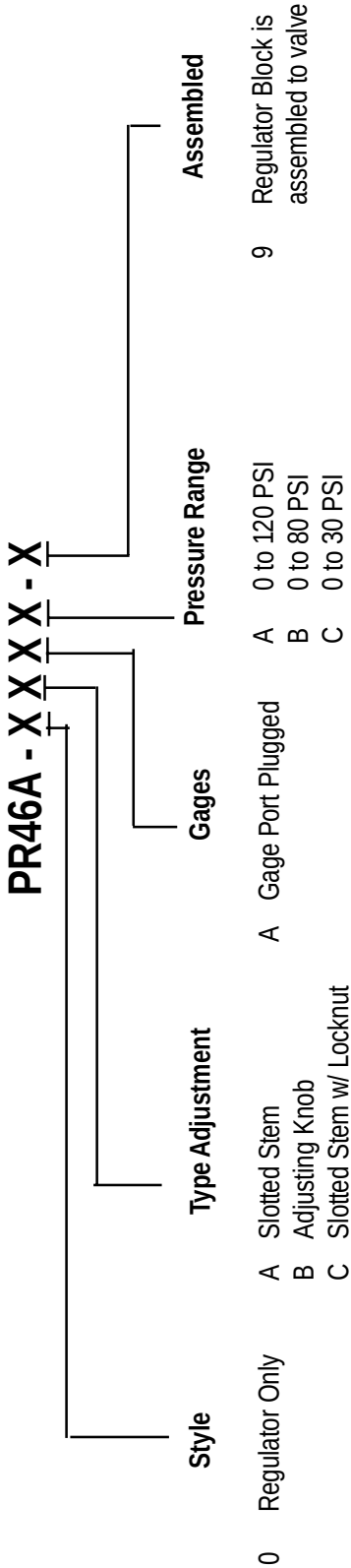
Plug In Circuit Bar for 36 Series



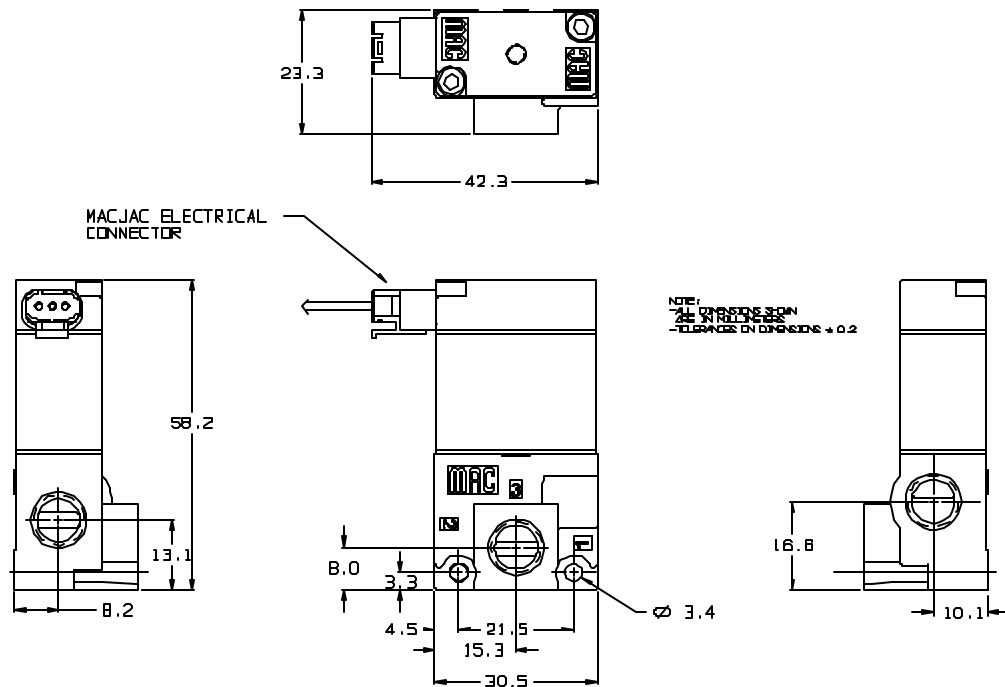
- Blank Plate Kits
M-36002 Valve Cover Plate
N-46004 Regulator Cover Plate

How to Order

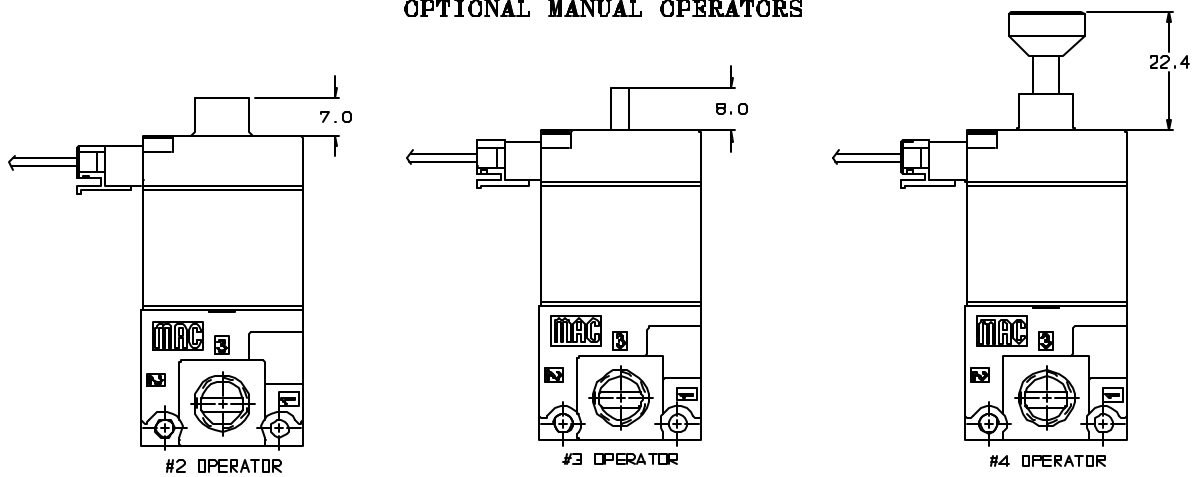
36 / 46 Series Regulator



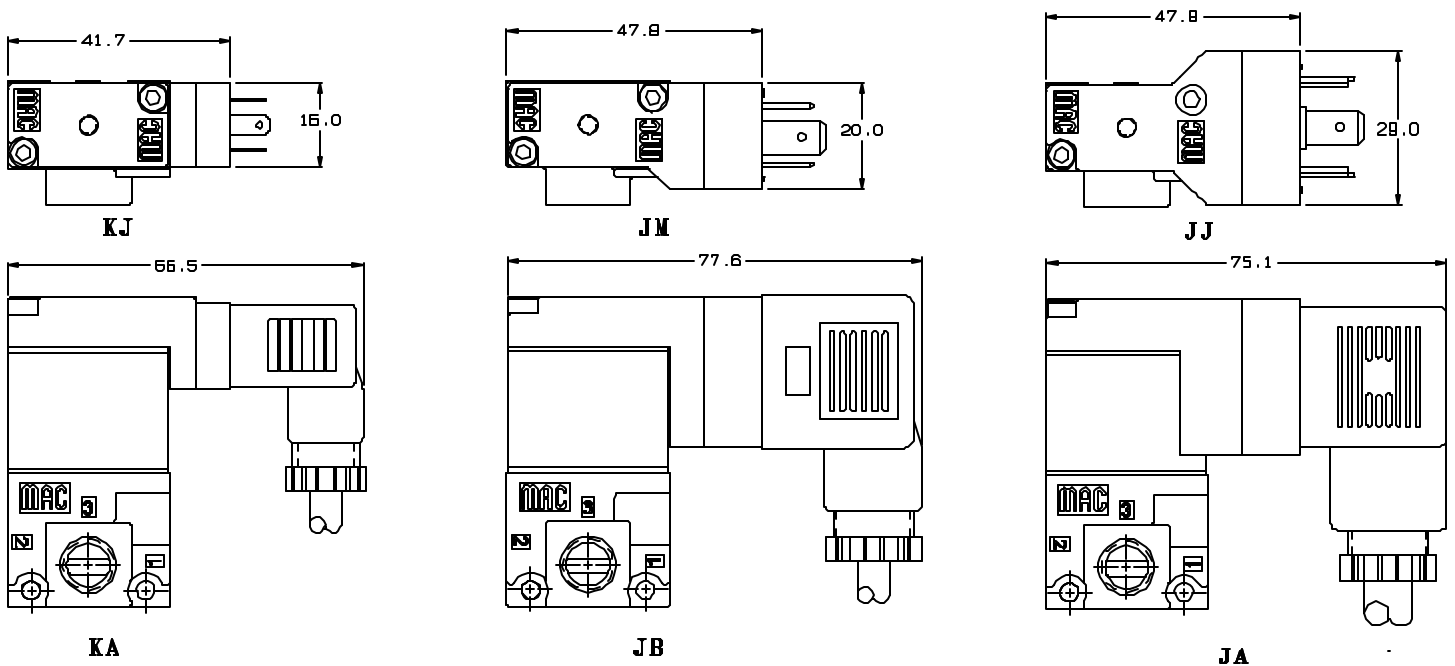
36 SERIES INLINE

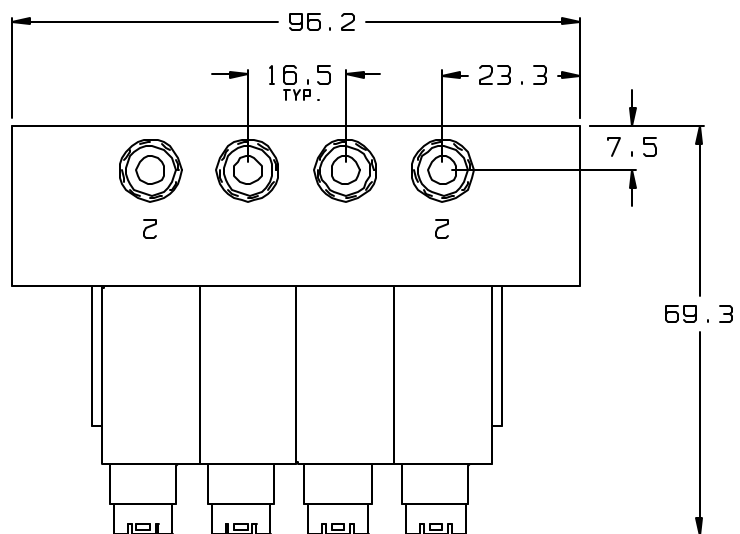


OPTIONAL MANUAL OPERATORS

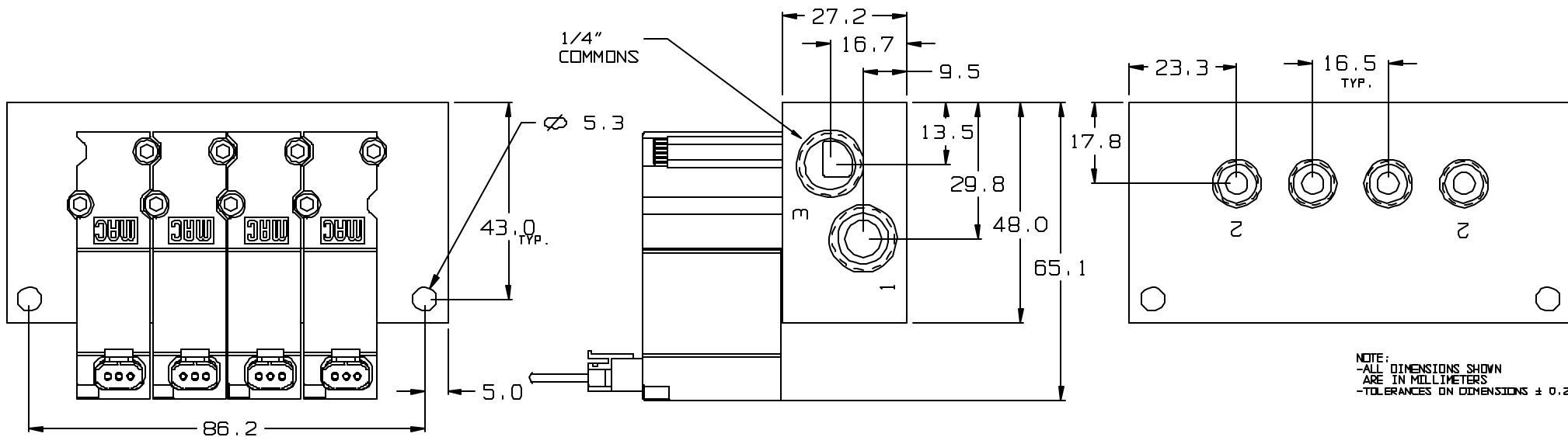


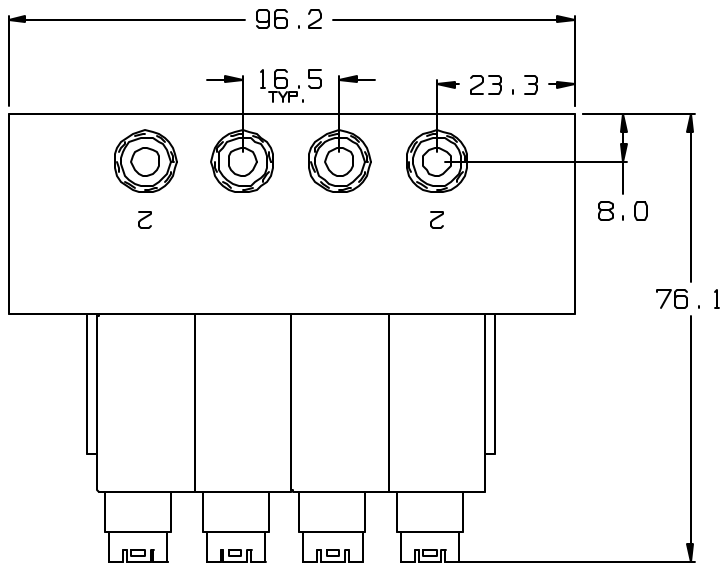
OPTIONAL ELECTRICAL CONNECTORS



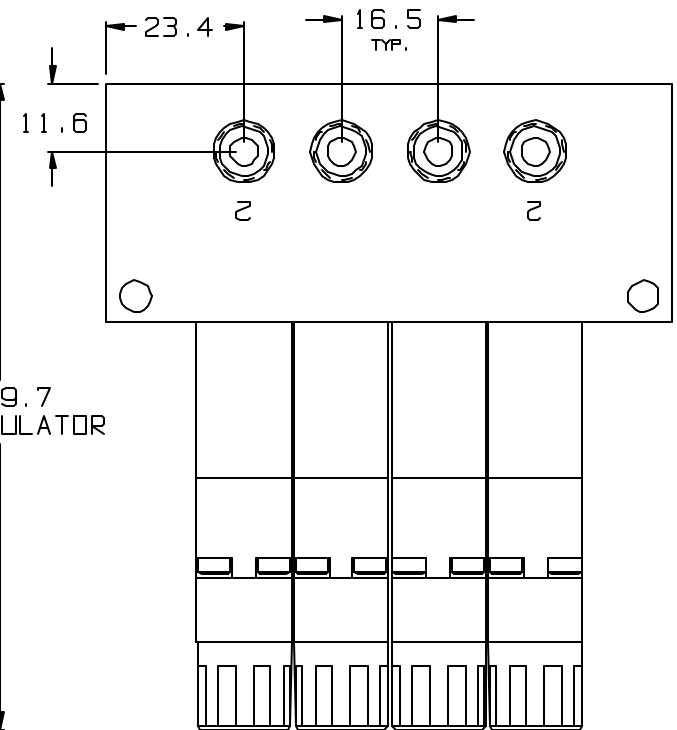
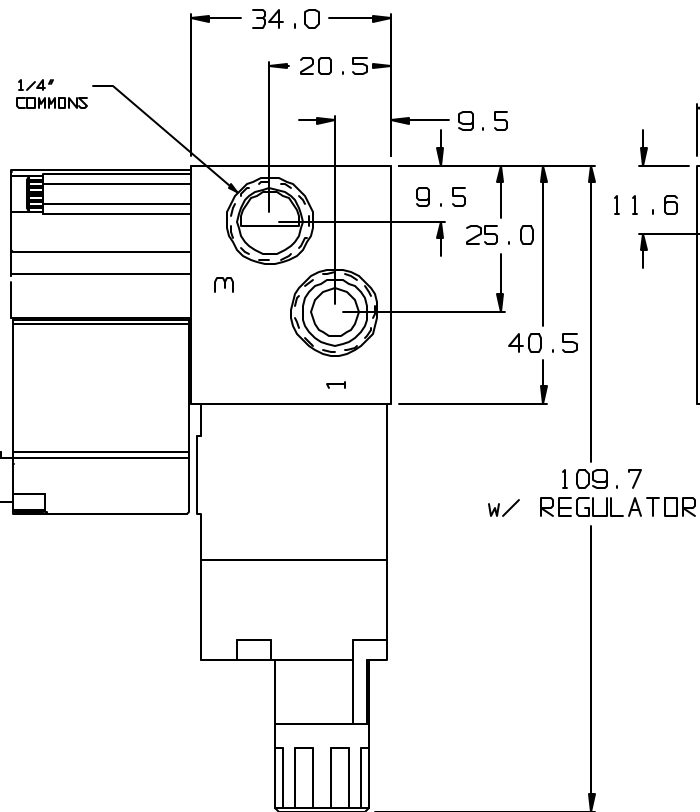
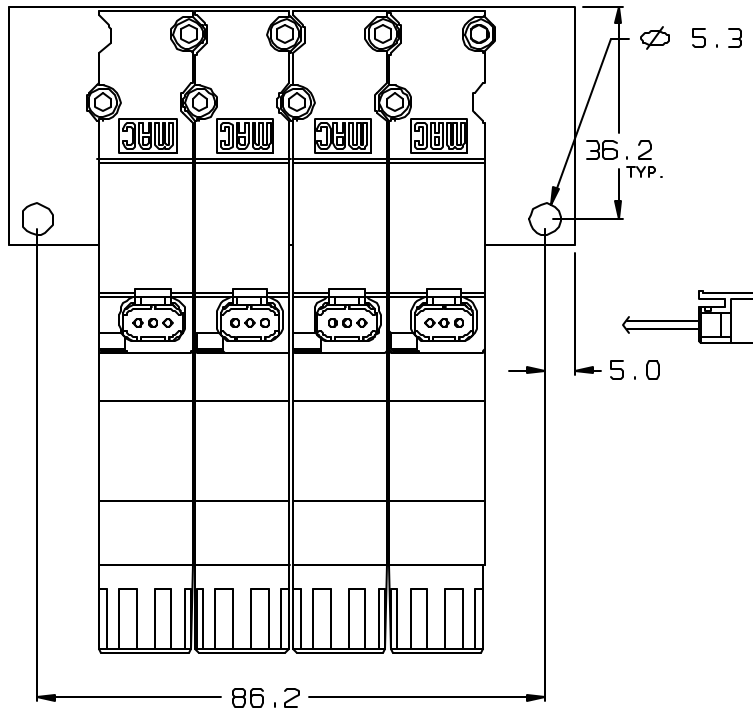


36 SERIES NON PLUG-IN EBM BAR LOW PROFILE

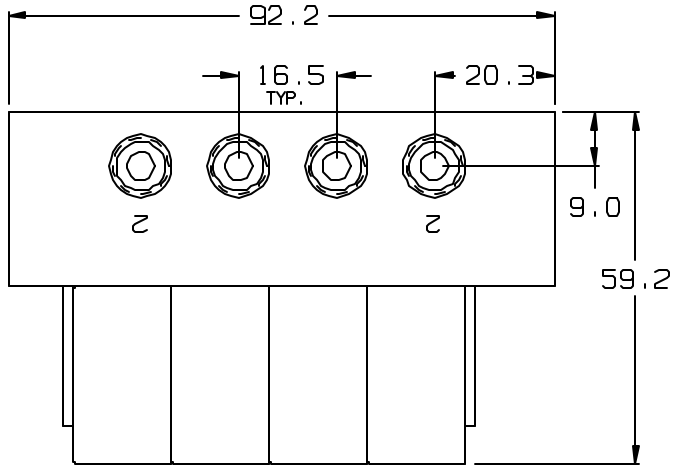




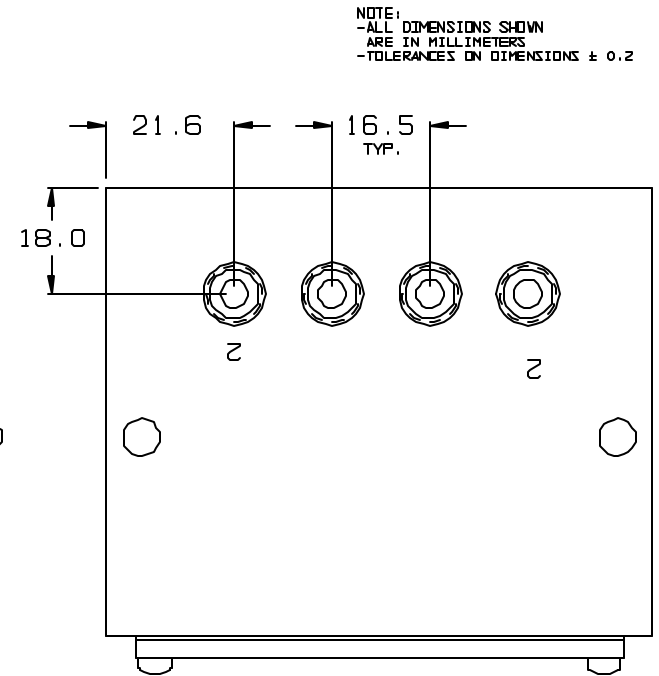
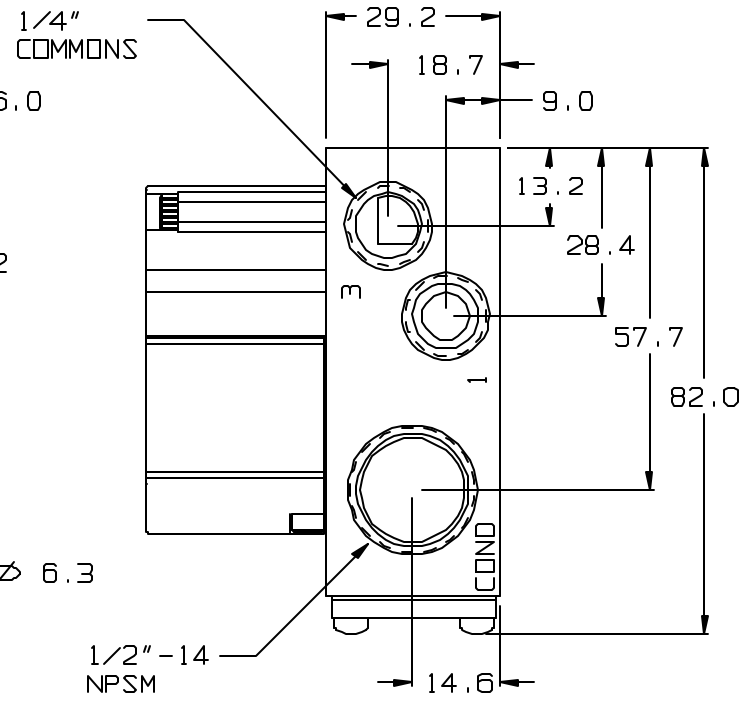
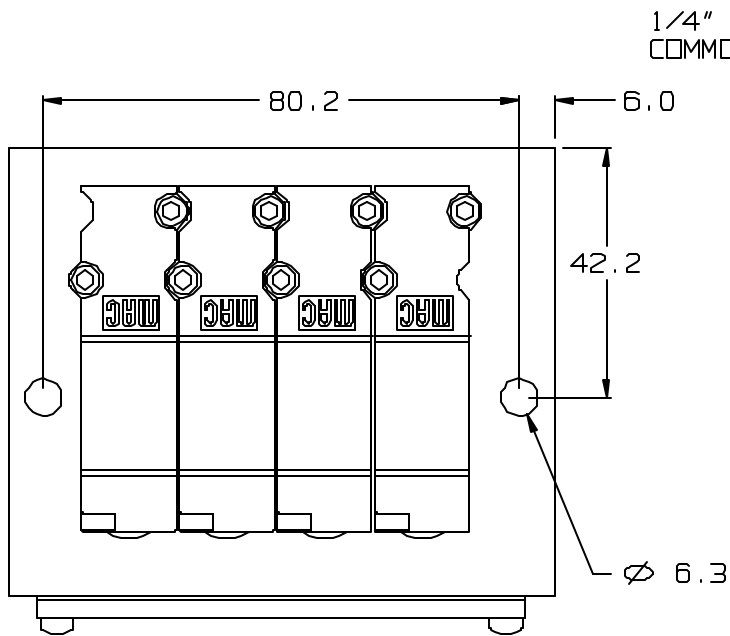
36 SERIES NON PLUG-IN EBM BAR MID PROFILE



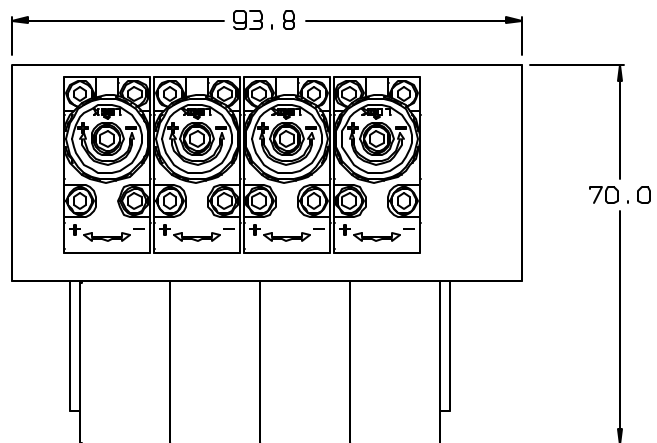
NOTE:
-ALL DIMENSIONS SHOWN
-ARE IN MILLIMETERS
-TOLERANCES ON DIMENSIONS ± 0.2



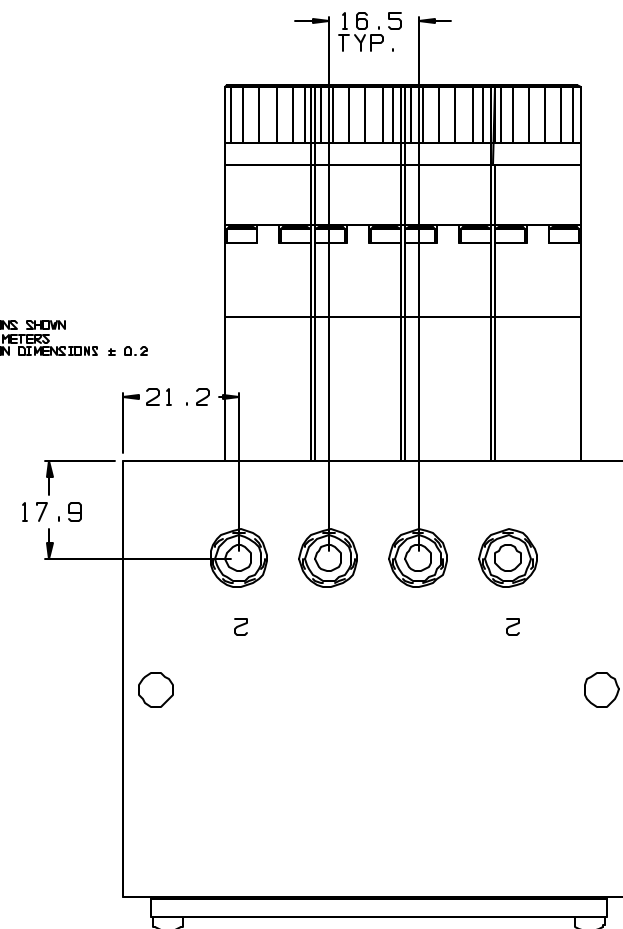
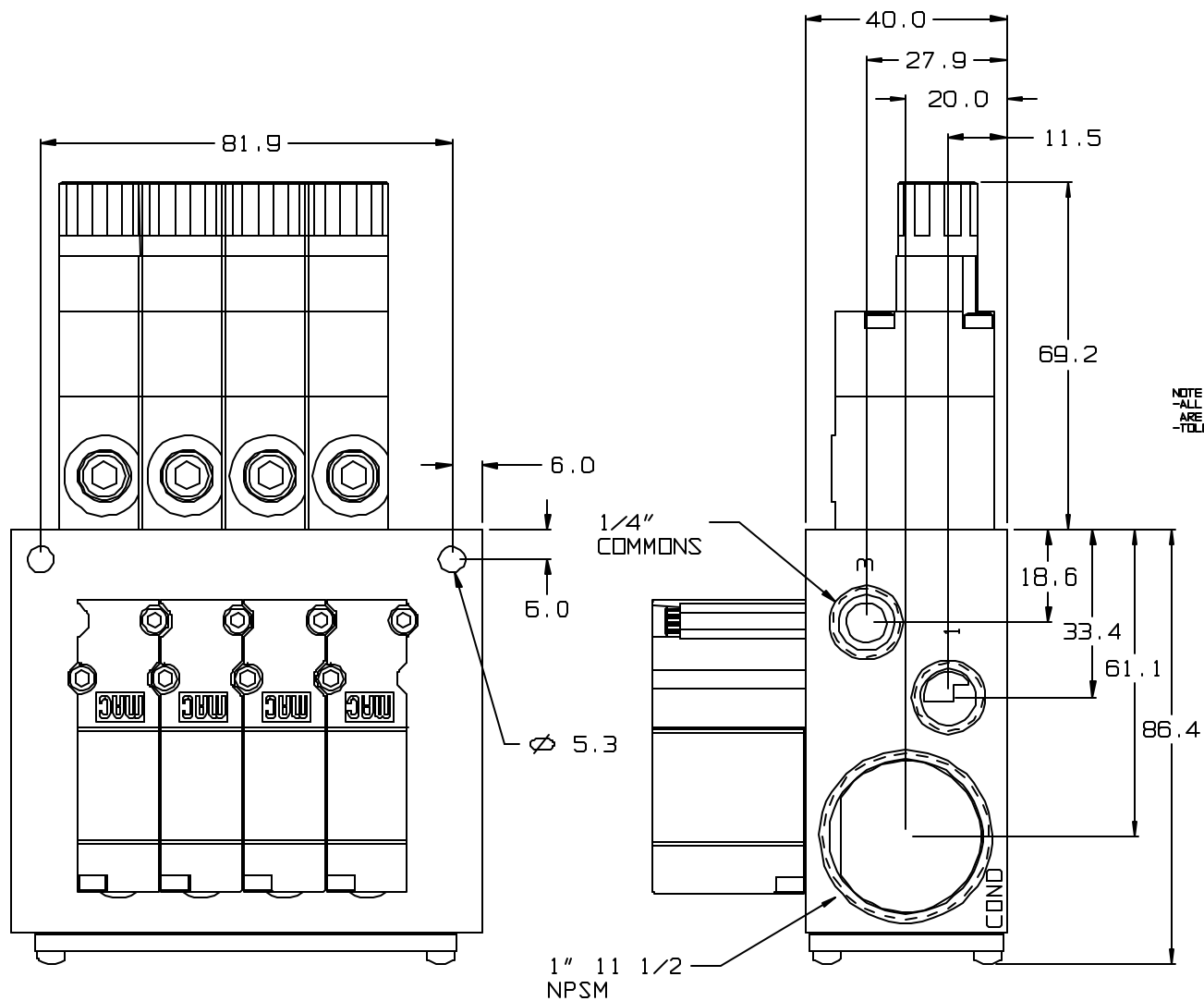
36 SERIES PLUG-IN ECD BAR LOW PROFILE



NOTE:
-ALL DIMENSIONS SHOWN
ARE IN MILLIMETERS
-TOLERANCES ON DIMENSIONS ± 0.2



36 SERIES PLUG-IN ECD BAR MID PROFILE



Specifications

36 Series Valve (Lifting Solenoid)

Operating Data

Fluids: Air or Inert Gas
Lubrication: Not Required. But if used, select a medium aniline point oil (between 180°F to 210°F).
Safe Operating
Temperature Range: 0° to 120°F (-18° to 50°C)
Pressure Range: Vacuum to 120 PSI
Coils: General Purpose Class A, Continuous duty.
Coil Leads: #22 AWG x 18", Other lengths available
Solenoid: Single Operator Only

Flows (Cv - Up to)

Average of All Ports

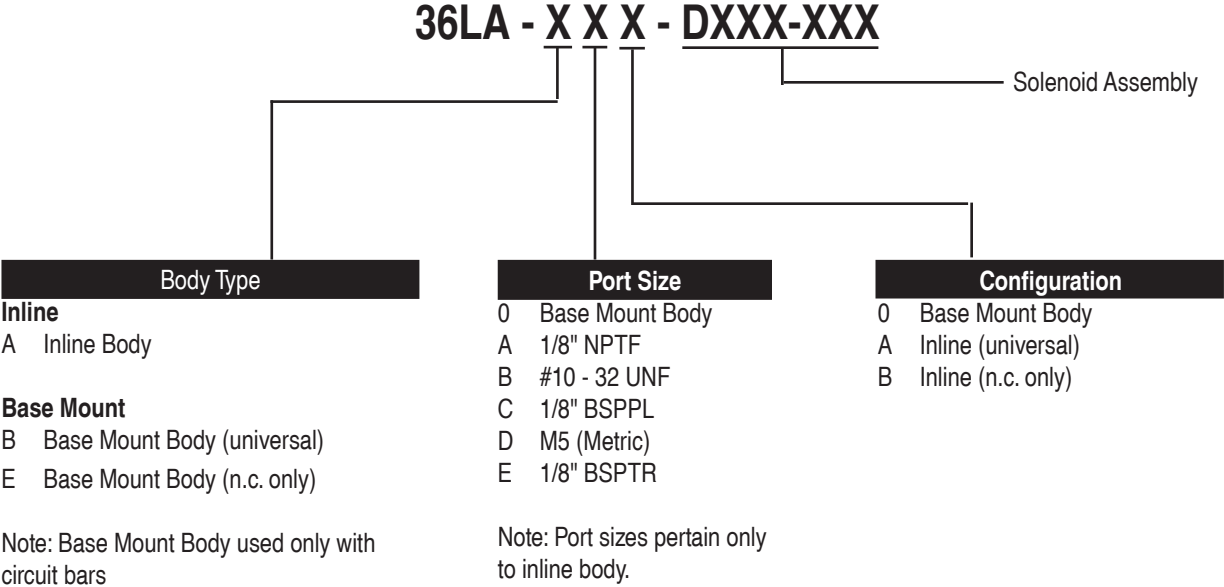
Wattage			
Inline (Cv)	1.8w	2.4w	5.4w
	.15	0.20	0.30

Higher flow rates available - Consult Factory

Special Applications

The balanced poppet design facilitates using the same valve for many functions. A valve may be used for pressure and/or vacuum or plugged for 2 Way operation.

How to Order 36L Series (Lifting Solenoid)



How to Order 36L Series Lifting Solenoid Assembly

D XX X - X XX

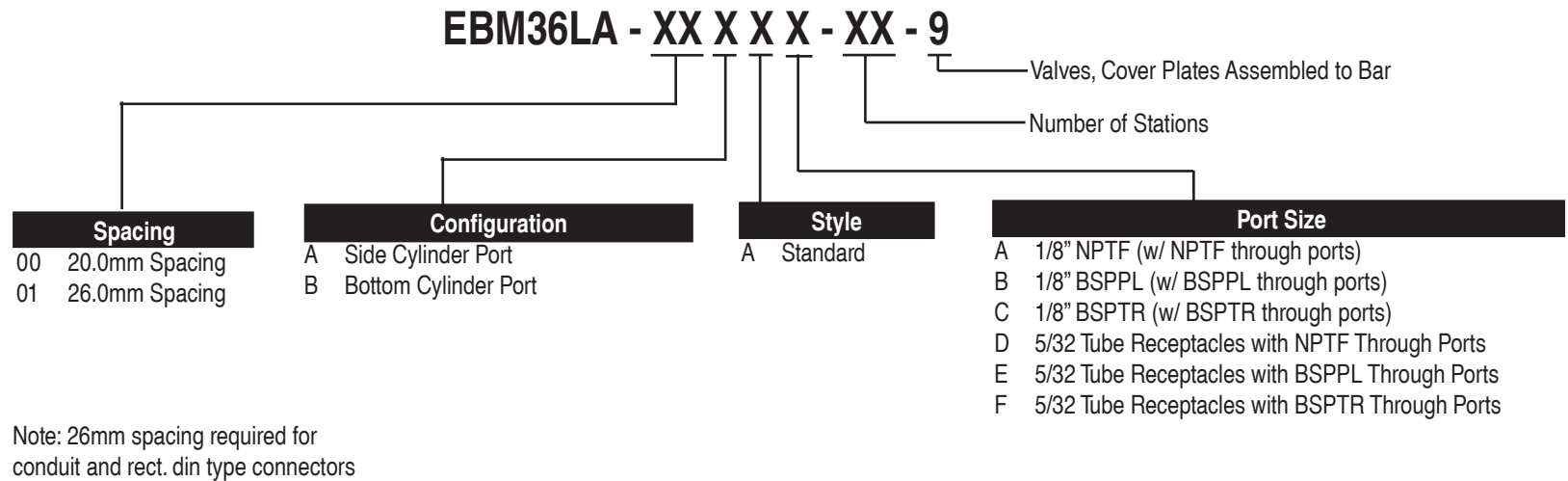
Voltage		Lead Wire Length		Manual Operator		Electrical Connectors			
DA	24 VDC (5.4W)	DB	12 VDC (5.4W)	0	No Lead Wire	0	No Operator	BA	Grommet (Flying Leads)
DC	12 VDC (7.5W)	DD	24 VDC (7.3W)	A	18"	1	Non-Locking	BK	Grommet with diode (Flying Leads)
DE*	12 VDC (12.7W)	DF*	24 VDC (12.7W)	B	24"	Manual Operator		BM	Plug-in (with leads)
DJ	28 VDC (5.2W)	DK	110 VDC (5.8W)	C	36"			BN	Plug-in with diode (with leads)
DL	64 VDC (6W)	DM	36 VDC (5.3W)	D	48"			CA	Conduit 1/2"
DN	6 VDC (6W)	DP	48 VDC (5.8W)	E	72"			CM	Metal conduit 1/2"
DR	90 VDC (6.6W)	DS	110 VDC (7.3W)	F	96"			CN	Metal conduit with ground 1/2"
DT	75 VDC (5.6W)	EA	12 VDC (6.0W)	J	External Plug-In			FM	Plug-in (For ECD Bar)
EB	220 VDC (4.2W)	ED	24 VDC (4.2W)	P	Plug-In			FN	Plug-in with diode (for ECD Bar)
EE	12 VDC (4.2W)	EJ	24 VDC (9.3W)	Notes : Use "J" with J, K, T, & P Connectors Use "P" with FM & FN Connectors				JB	Rectangular plug-in
EM	120 VDC (6.2W)	ES*	12 VDC (9.5W)					JD	Rectangular plug-on with light
ET	24 VDC (3.0W)	EW	24 VDC (8.0W)					JM	Rectangular male only
FA	12 VDC (1.8W)	FB	24 VDC (1.8W)					KA	Mini plug-in
FC	10 VDC (2.2W)	FE	12 VDC (2.4W)					KB	Mini plug-in with diode
FF	24 VDC (2.4W)	FK	48 VDC (1.9W)					KD	Mini plug-in with light
FL	18 VDC (2.4W)	GD	220 VDC (7.3W)					KE	Mini plug-in with light & diode
GE	6 VDC (9.0W)	GF	15 VDC (5.0W)					KG	Mini plug-in with LED light & diode
GG	9 VDC (9.0W)							KJ	Mini plug-in male only
								KK	Mini plug-in male only with diode
								TA	Dual tabs (.110) with receptacles
								TB	Dual tabs with diode & receptacles
								TD	Dual tabs with light & receptacles
								TE	Dual tabs with light, diode & receptacles
								TJ	Dual tabs (.110) plain
								TK	Dual tabs with diode (no receptacles)
								TM	Dual tabs with light (no receptacles)
								TN	Dual tabs with light & diode (no receptacles)
								PA	Pico

* MOD CLSF

* MOD CLSF

How to Order 36L Series

EBM Circuit Bar (Non Plug-In)



Ordering Examples

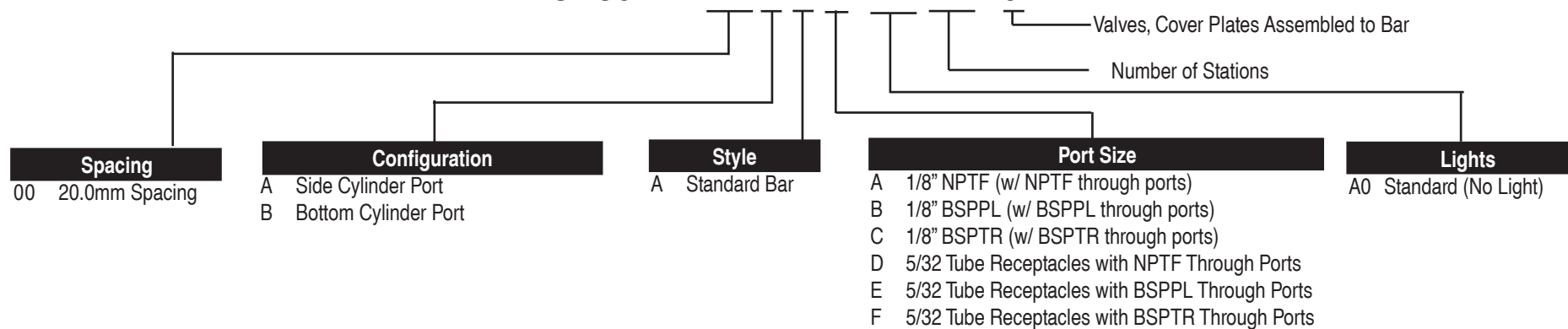
EBM36LA-00AAC-06

36L Series, Non Plug-In, 20.0 mm spacing, 1/8" BSPTR side cylinder ports, standard bar, with BSPTR through ports (inlet and exhaust) with six identical stations

Note: If all stations are not identical, the circuit bar is considered "Special."
Consult factory for part number and pricing.

How to Order 36L Series ECD Circuit Bar (Plug-In)

ECD36LA - XX X X X - XX XX - 9

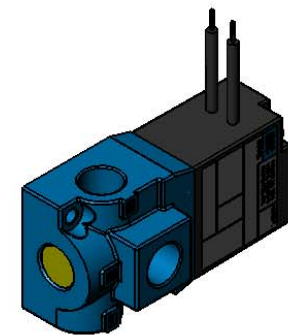
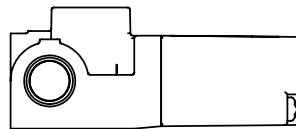
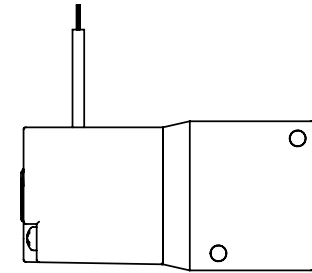
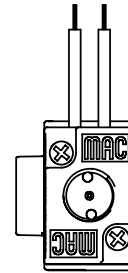
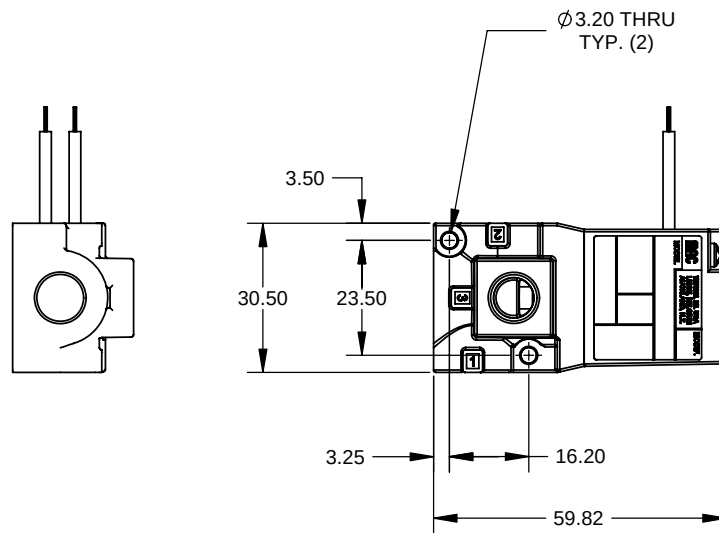
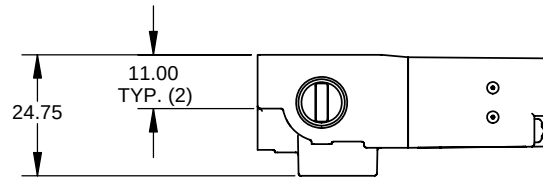


Ordering Examples

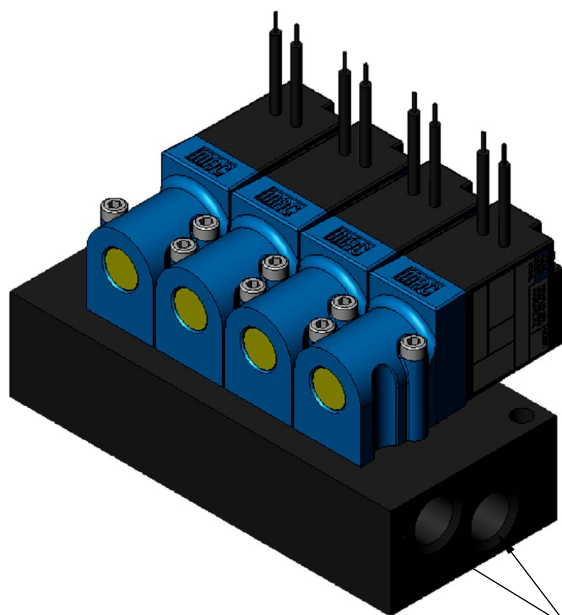
ECD36LA-00AAA-A006

36L Series, Plug-In, 20.0 mm spacing, 1/8" NPTF side cylinder ports, with NPTF through ports (inlet and exhaust), standard bar, with six identical stations

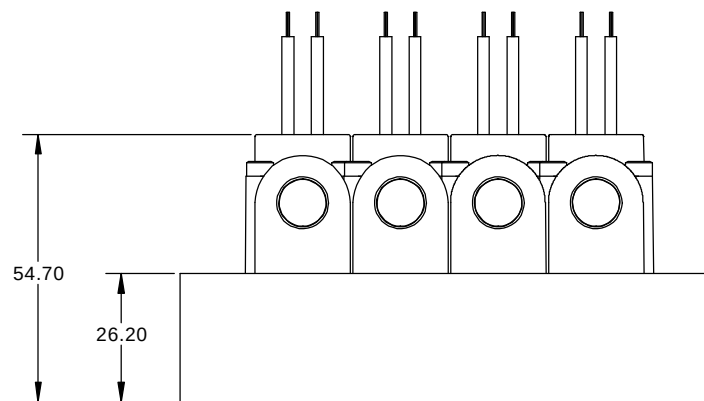
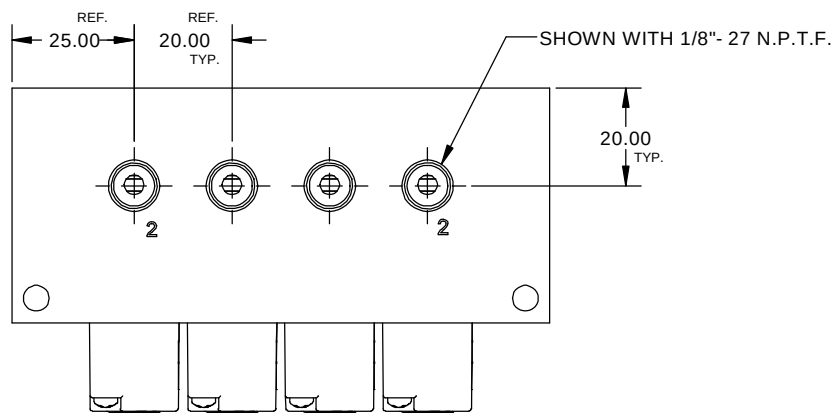
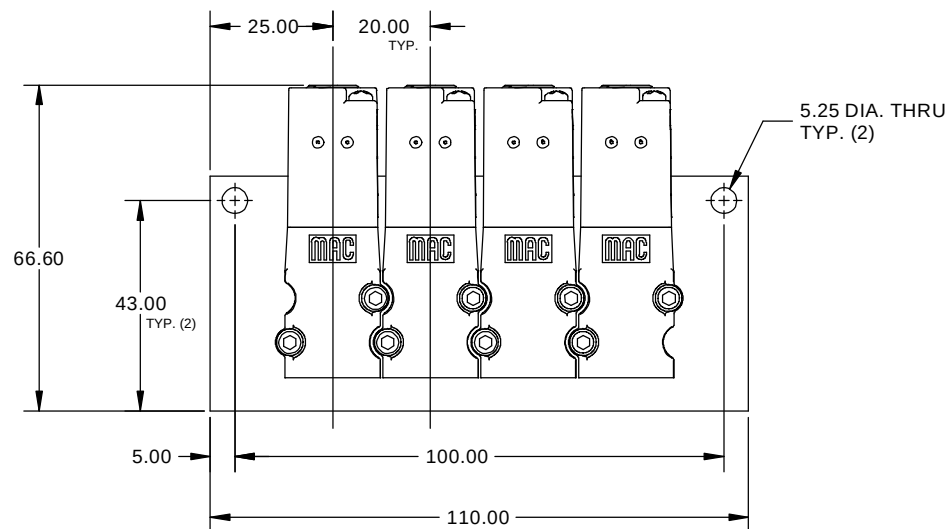
Note: If all stations are not identical, the circuit bar is considered "Special."
Consult factory for part number and pricing.



36L INLINE VALVE



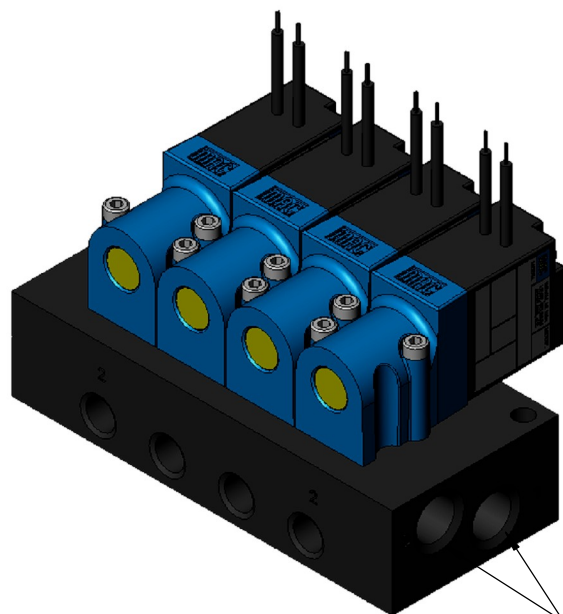
1/4"-18 N.P.T.F. TAP TO GAGE
TYP. (2) BOTH ENDS



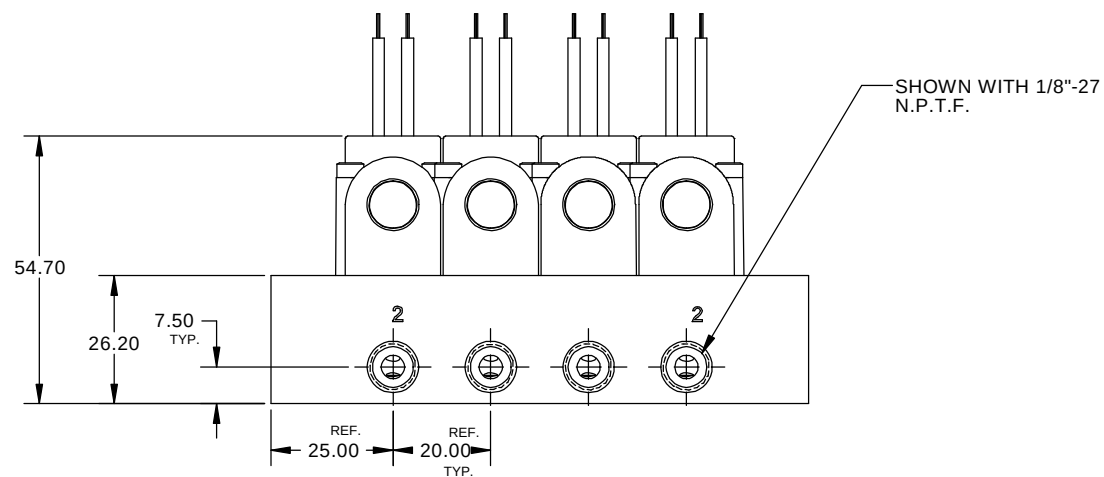
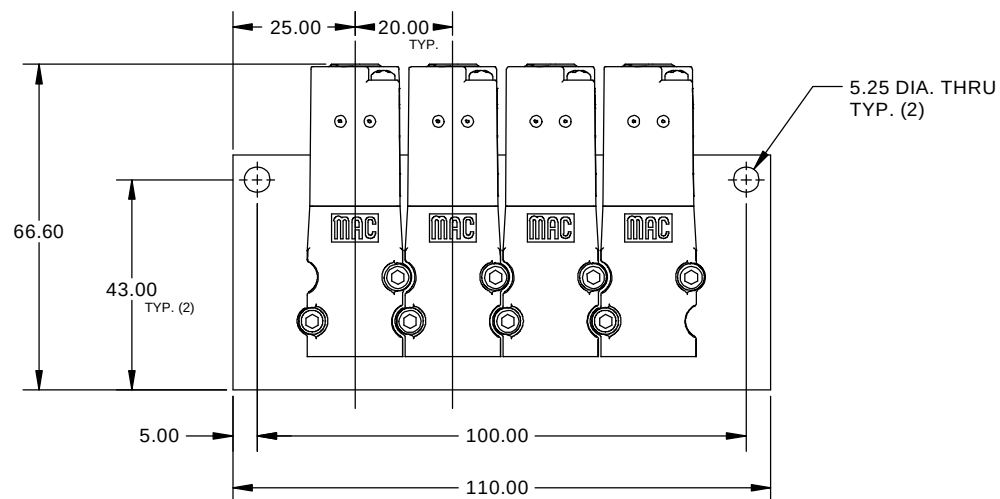
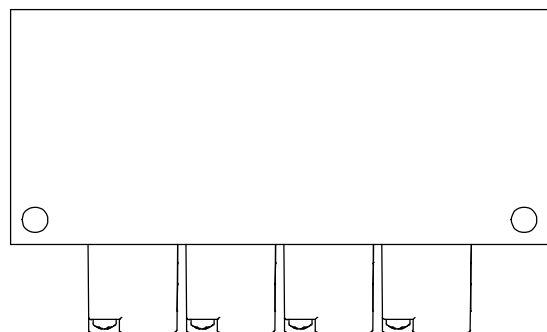
EBM36LA-00BAA-XX

* 26mm SPACING AVAILABLE FOR CONDUIT AND RECT. DIN TYPE CONNECTOR

* SHOWN WITH A #0 OPERATOR



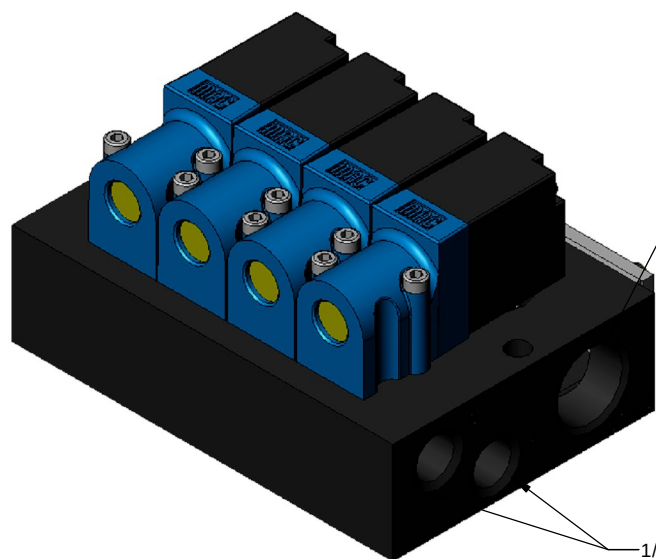
1/4"-18 N.P.T.F. TAP TO GAGE
TYP. (2) BOTH ENDS



EBM36LA-00AAA-XX

* 26mm SPACING REQUIRED FOR CONDUIT AND RECT. TYPE CONNECTORS

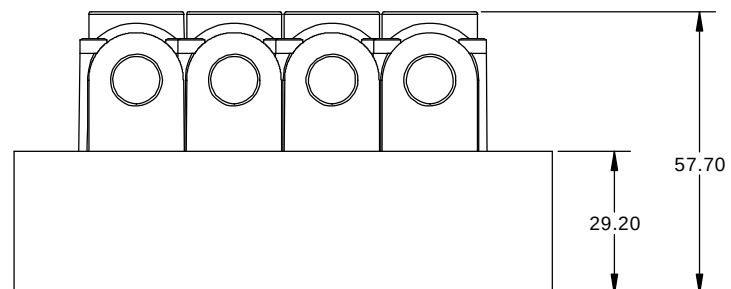
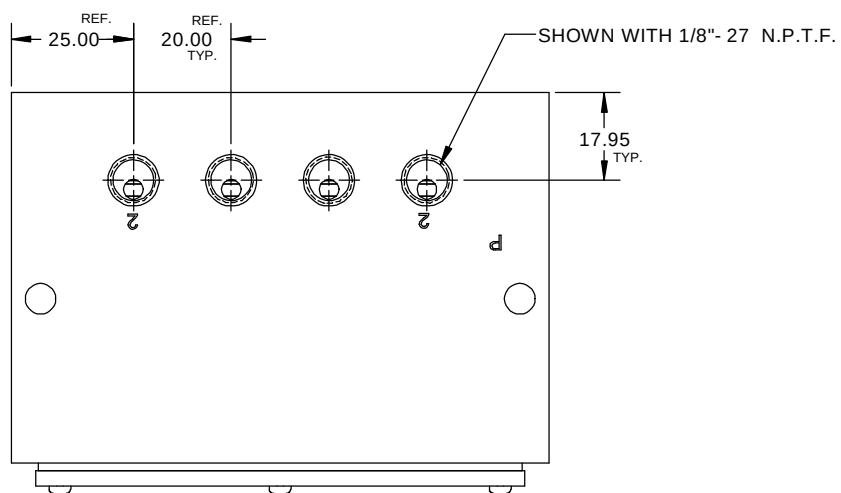
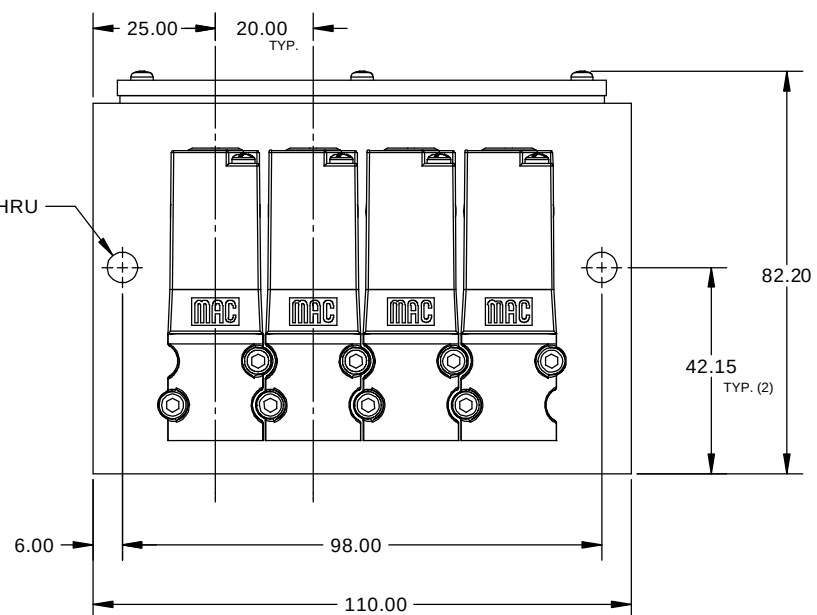
* SHOWN WITH A #0 OPERATOR



1/2" -14 N.P.S.M. T AP-
11.0 MIN. FULL TH'D DEPTH

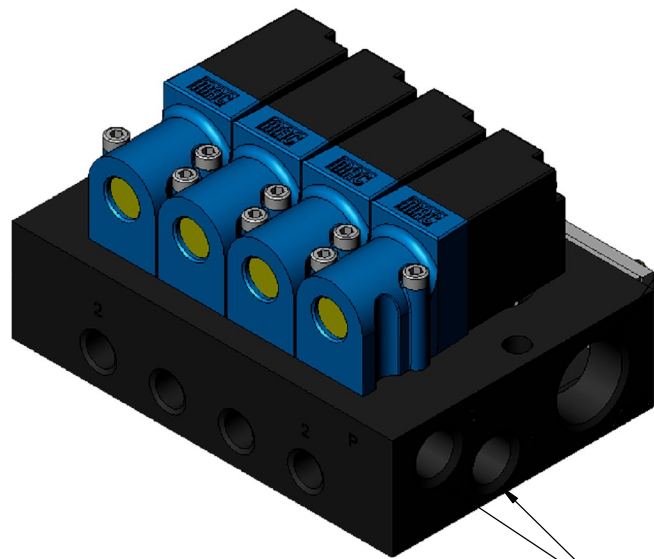
1/4" - 18 N.P.T.F. T AP TO GAGE
TYP. (2) BOTH ENDS

6.25 DIA. THRU
TYP. (2)



ECD36LA-00BAA-A0-XX

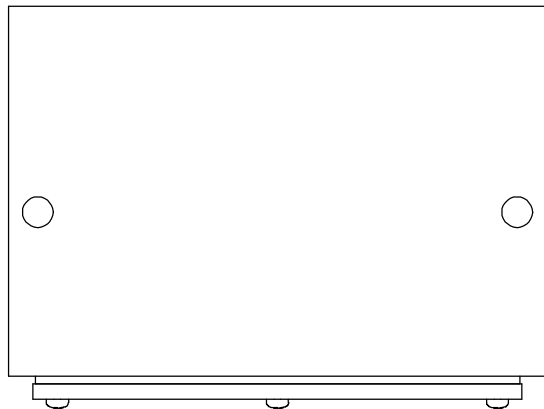
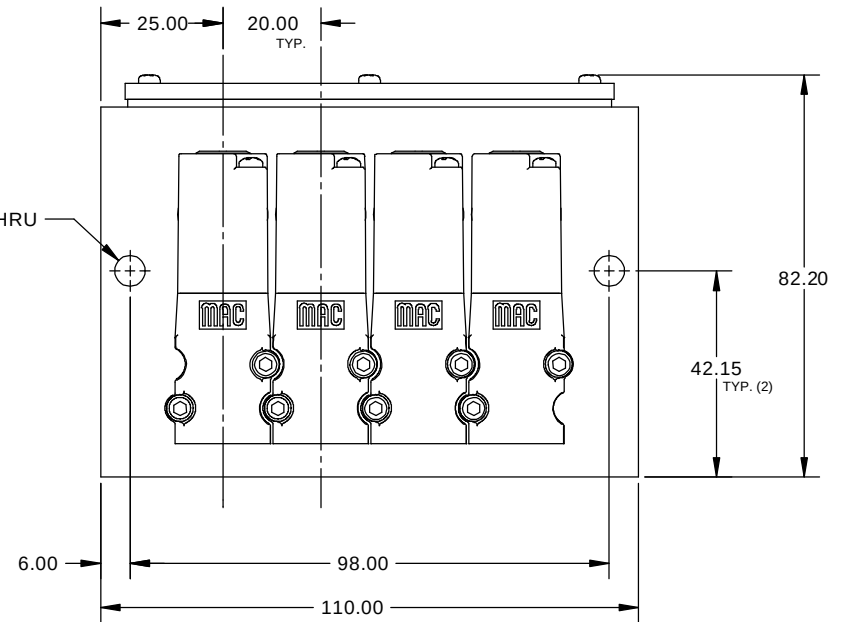
* SHOWN WITH A #0 OPERATOR



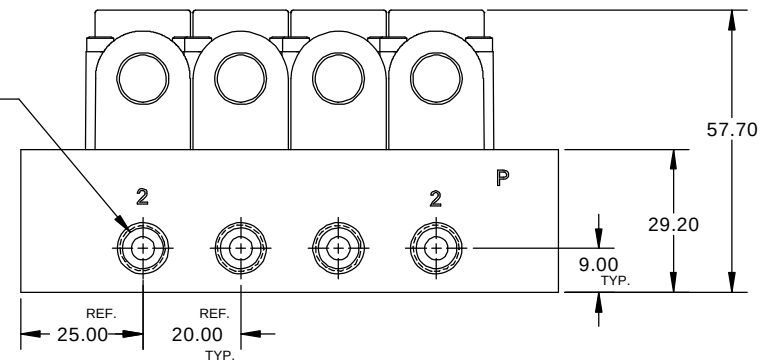
1/2" - 14 N.P.S.M. TAP-
11.0 MIN. FULL TH'D DEPTH

6.25 DIA. THRU
TYP. (2)

1/4" - 18 N.P.T.F. TAP TO GAGE
TYP. (2) BOTH ENDS



SHOWN WITH 1/8" - 27 N.P.T.F.



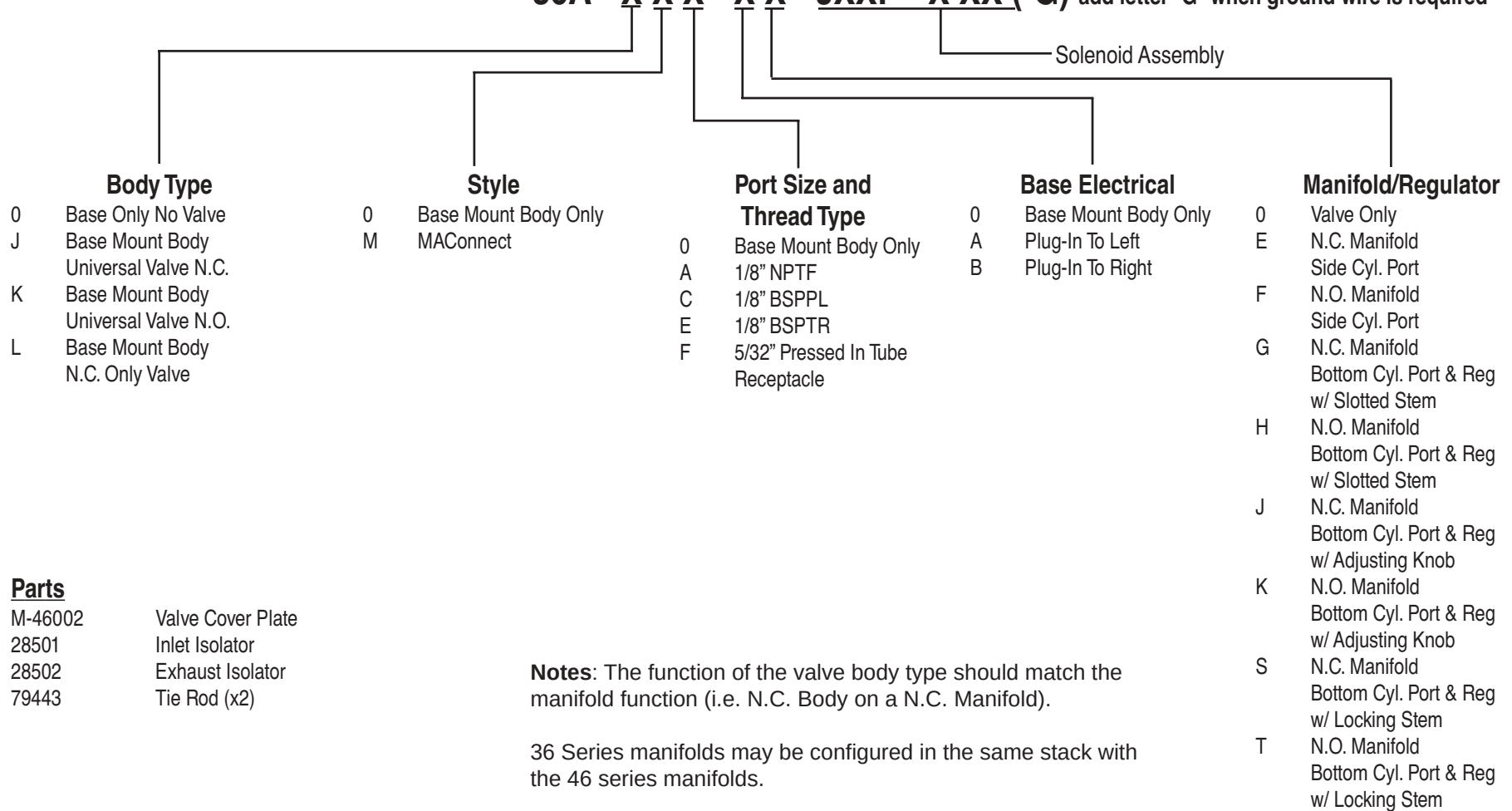
ECD36LA-00AAA-A0-XX

* SHOWN WITH A #0 OPERATOR

How To Order

36 Series MAConnect

36A - X X X - X X - JXXP - X XX (-G) add letter "G" when ground wire is required



How To Order

36 Series Solenoid Assembly

36A - XXX - XX - J XX P - X XX (-G) add letter "G" when ground wire is required

Voltage		Manual Operator		Electrical Connector	
AA	120 VAC (5.4w) - Max Cv = 0.3	0	No operator	FA	Base Plug-In
AC	24 VAC (5.4w) - Max Cv = 0.3	1	Recessed Non Locking Operator	FB	Base Plug-In with Diode (Positive Common)
DA	24 VDC (5.4w) - Max Cv = 0.3	2	Recessed Locking Operator	FC	Base Plug-In with MOV
DB*	12 VDC (5.4w) - Max Cv = 0.3	3	Extended Non Locking Operator	FD	Base Plug-In with LED
DC	24 VDC (2.4w)	4	Extended Locking Operator	FE	Base Plug-In with Diode and LED (Positive Common)
DD	12 VDC (2.4w)			FF	Base Plug-In with MOV and LED
DE	24 VDC (1.8w)			FG	Base Plug-In with Rectifier
DF	12 VDC (1.8w)			FH	Base Plug-In with Rectifier and LED
LA	120 VAC (5.4w) - Max Cv = 0.23			FJ	Base Plug-In with Diode (Negative Common)
LB	24 VAC (5.4w) - Max Cv = 0.23			FK	Base Plug-In with Diode and LED (Negative Common)
MA	24 VDC (5.4w) - Max Cv = 0.23				
MB*	12 VDC (5.4w) - Max Cv = 0.23				

* Not available for MACConnect

Note: AC Voltage requires a connector with a rectifier

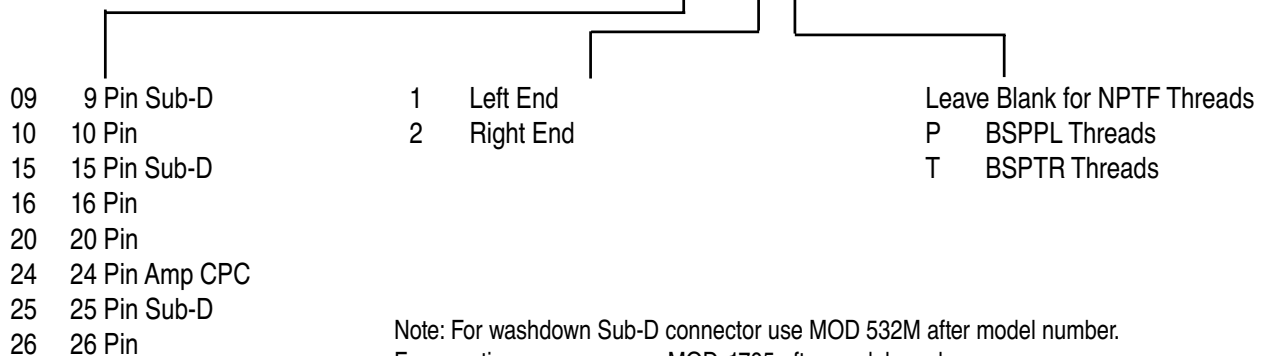
36 Series MAConnect™

How to Order

Adapters / End Plate Kit

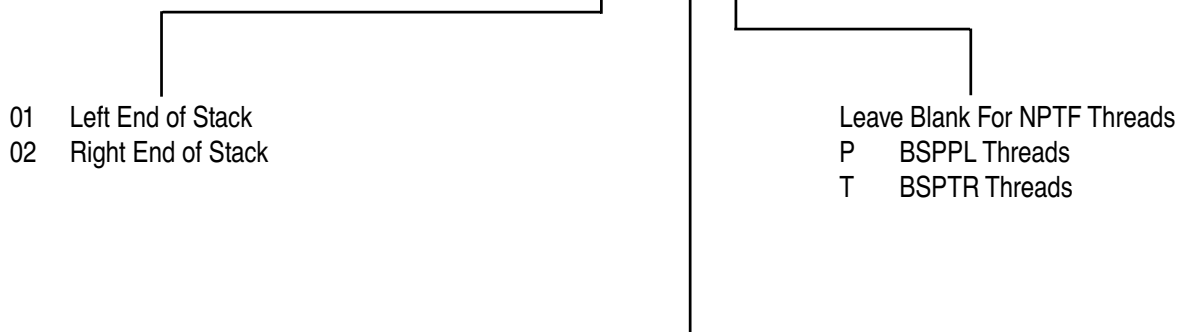
MAConnect™ Adapter Assembly

M-46005 - XX - X X



MAConnect™ Fastening End Plate Kit

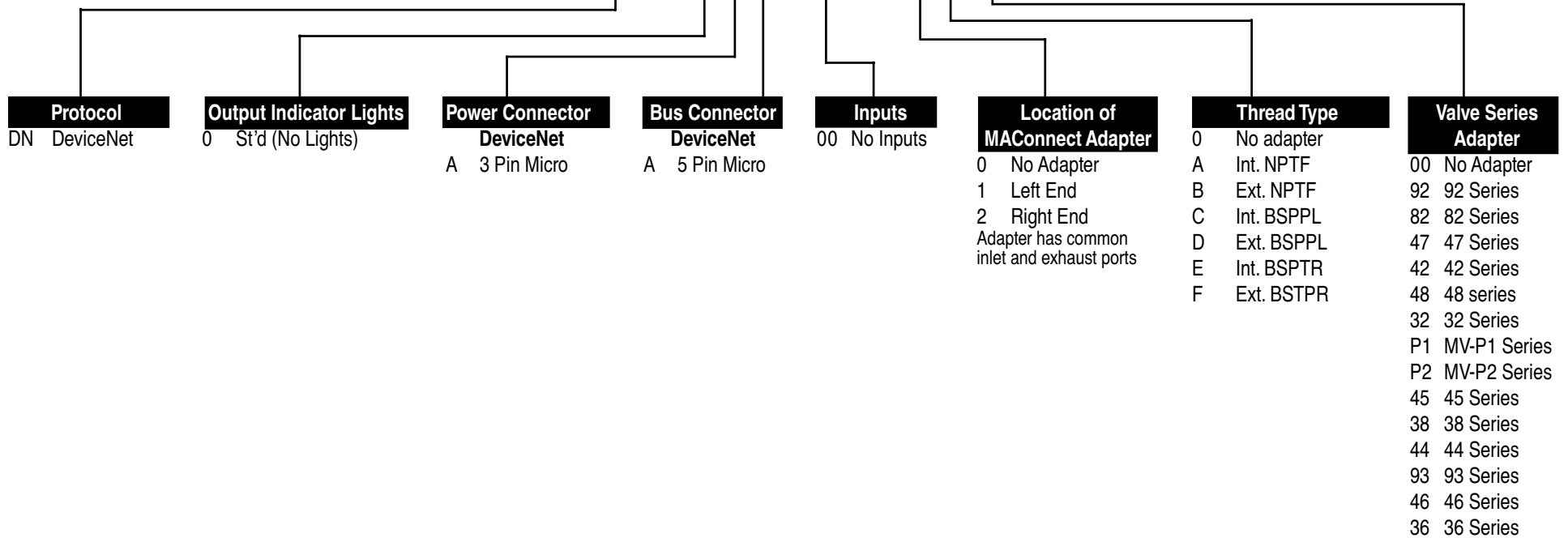
M-46006 - XX - 01 X



Note: “01” should be used only when the Fastening End Plate Kit is ordered separately. When the kit is ordered with an assembly this number will change to indicate the number of valves in the stack.

How to Order SM16 for MACConnect™ Serial Manifold

SM16 - XX A - X X X - XX M - X X XX



How to Order SM32 for MACConnect™ Serial Manifold

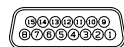
MACConnect™
SM32 - XX A - X X X - X X M - X X XX -9

Protocol	Output Indicator Lights	Power Connector	Bus Connector	Inputs	Input Types	Location of MACConnect Adapter	Pilot and Thread Type	Valve Series Adapter
DN DeviceNet	Monitoring Valve Signal	DeviceNet	DeviceNet	A No Inputs	A No Inputs	0 No Adapter	0 No adapter	00 No Adapter
PB Profibus	A St'd (16)	B 4 Pin Mini	B 5 Pin Micro	B 1 Input	B NPN	1 Left End	A Int. NPTF	42 42 Series
IB Interbus-S	Monitoring Bus Logic Signal	C 3 Pin Micro	C 5 Pin Mini	C 2 Inputs	C PNP	2 Right End	B Ext. NPTF	47 47 Series
AB Allen Bradley Remote IO	B St'd (16)	E 4 Pin Mini Side Mount	End Mount 2 Conn.	D 3 Inputs			C Int. BSPPL	48 48 Series
AS AS-I	ASI Available Only w/ (B) Monitoring Signal	Profibus & Interbus-S	Profibus	E 4 Inputs			D Ext. BSPPL	82 82 Series
		F 3 Pin Mini	D 9 Pin Sub-D	F* Tethered 16 Inputs 8 on AS-I			E Int. BSPTR	92 92 Series
		H 4 Pin Mini	Interbus-S	**F* Option required for remote tethered box or MACConnect input modules. Choose option "A" for "Input Types"			F Ext. BSTPR	32 32 Series
		AB Remote IO	E 9 Pin Sub-D Male & Female				** N No Pilot Port	P1 MV-P1 Series
		G 5 Pole Term.	AB Remote IO				** 82 Series Only	P2 MV-P2 Series
		B 4 Pin Mini	F 3 Pole Term.					45 45 Series
			G 4 Pin Micro (2 4-Pin Connectors)					38 38 Series
			AS-I					44 44 Series
			H 4 Pin Micro 2 Conn. w/ 2 Prog. Ports					93 93 Series
								46 46 Series
								36 36 Series



PIN #	SOLENOID #
1	1
2	2
✓	✓
20	20
21	+ COMMON
22	+ COMMON
23	+ COMMON
24	+ COMMON
25	+ COMMON

25 PIN SUB-D



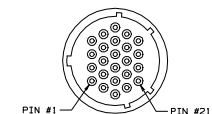
PIN #	SOLENOID #
1	1
2	2
✓	✓
13	13
14	+ COMMON
15	+ COMMON

15 PIN SUB-D



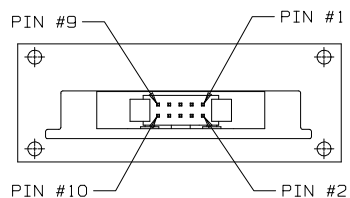
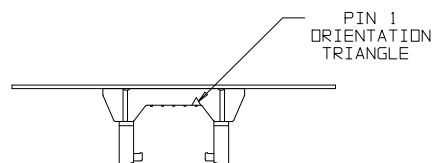
PIN #	SOLENOID #
1	1
2	2
✓	✓
8	8
9	+ COMMON

9 PIN SUB-D



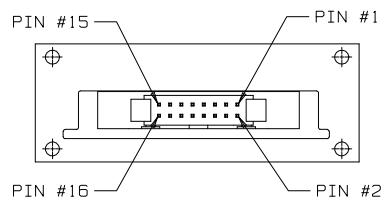
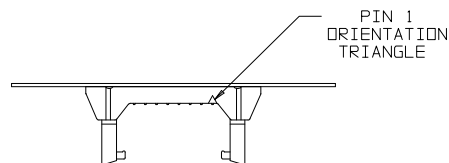
PIN #	SOLENOID #
1	1
2	2
✓	✓
20	20
21	+ COMMON
22	+ COMMON
23	+ COMMON
24	+ COMMON

24 PIN AMP CPC



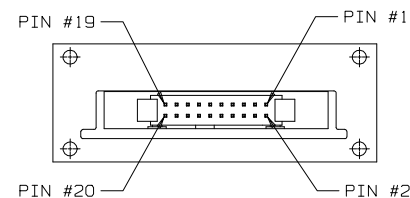
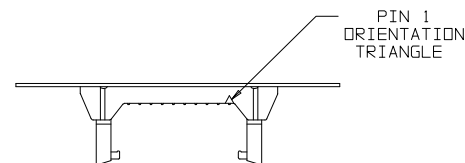
PIN #	SOLENOID #
1	1
2	2
✓	✓
8	8
9	+ COMMON
10	+ COMMON

10 PIN



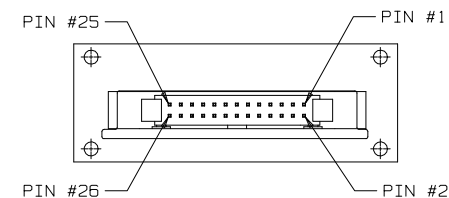
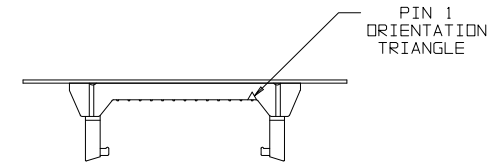
PIN #	SOLENOID #
1	1
2	2
✓	✓
12	12
13	+ COMMON
14	+ COMMON
15	+ COMMON
16	+ COMMON

16 PIN



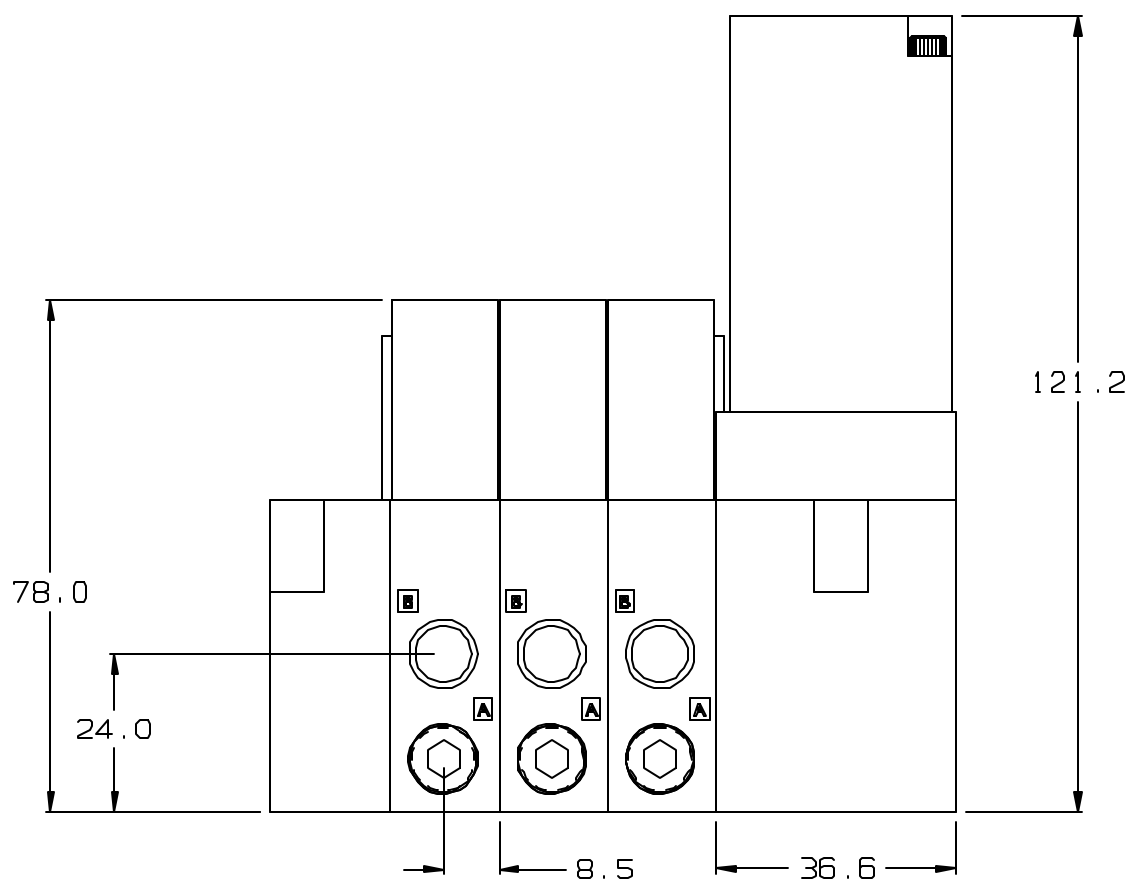
PIN #	SOLENOID #
1	1
2	2
✓	✓
16	16
17	+ COMMON
18	+ COMMON
19	+ COMMON
20	+ COMMON

20 PIN



PIN #	SOLENOID #
1	1
2	2
✓	✓
20	20
21	+ COMMON
22	+ COMMON
23	+ COMMON
24	+ COMMON
25	+ COMMON
26	+ COMMON

26 PIN

[illegible]

Technical drawing of the MAC-1000 base, showing front, side, and rear views with dimensions in millimeters.

Front View Dimensions:

- Overall width: 147.0
- Overall height: 138.0
- Top mounting hole spacing: 4.8, 5.5
- MAC module width: 16.5 (TYP.)
- MAC module spacing: 18.6
- MAC module height: 52.5
- MAC module mounting hole spacing: 4.0
- MAC module mounting hole diameter: $\varnothing 4.3$
- MAC module mounting hole offset: 4.4
- MAC module mounting hole diameter: $\varnothing 5.3$

Side View Dimensions:

- Overall height: 134.3
- MAC module height: 78.0
- MAC module mounting hole spacing: 24.0
- MAC module mounting hole diameter: $\varnothing 8.0$
- MAC module mounting hole offset: 8.5

Rear View Dimensions:

- Overall width: 45.1
- MAC module width: 16.5 (TYP.)
- MAC module spacing: 18.6
- MAC module height: 52.5
- MAC module mounting hole spacing: 4.0
- MAC module mounting hole diameter: $\varnothing 4.3$
- MAC module mounting hole offset: 4.4
- MAC module mounting hole diameter: $\varnothing 5.3$

Notes:

- NOTE: ALL DIMENSIONS SHOWN ARE IN MILLIMETERS
- TOLERANCES ON DIMENSIONS ± 0.2
- BASE PLUGGED FOR A NORMALLY CLOSED FUNCTION

Sandwich-pressure regulator

OPERATIONAL BENEFITS

1. Easy mounting: saves on installation costs in comparison with inline regulators.
2. Compact all included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.
6. Single pressure regulator.



PR37A

PR42B

PR46A

PR47A

PR48B

PR92C

PR93A

PRA01A

PRA02A

PRA1A

PRP1A

PRA2D

PRP2B

PRA3C

PRP3B

HOW TO ORDER

REGULATORS FOR "PLUG-IN" AND "NON PLUG-IN" VALVES

Gauge	For plug-in valves	For non plug-in valves
Gauge port (plugged)	PR46A-AAAA	PR46A-BAAA

OPTIONS

Pressure range :

PR46A-AAA A

- A** 0 to 120 PSI
- B** 0 to 80 PSI
- C** 0 to 30 PSI

- A** Manual adjust with slotted screwdriver stem
- B** Manual adjust with adjusting knob
- C** Manual adjust with slotted screwdriver stem and locknut

- 0** Regulator only (No sandwich block)

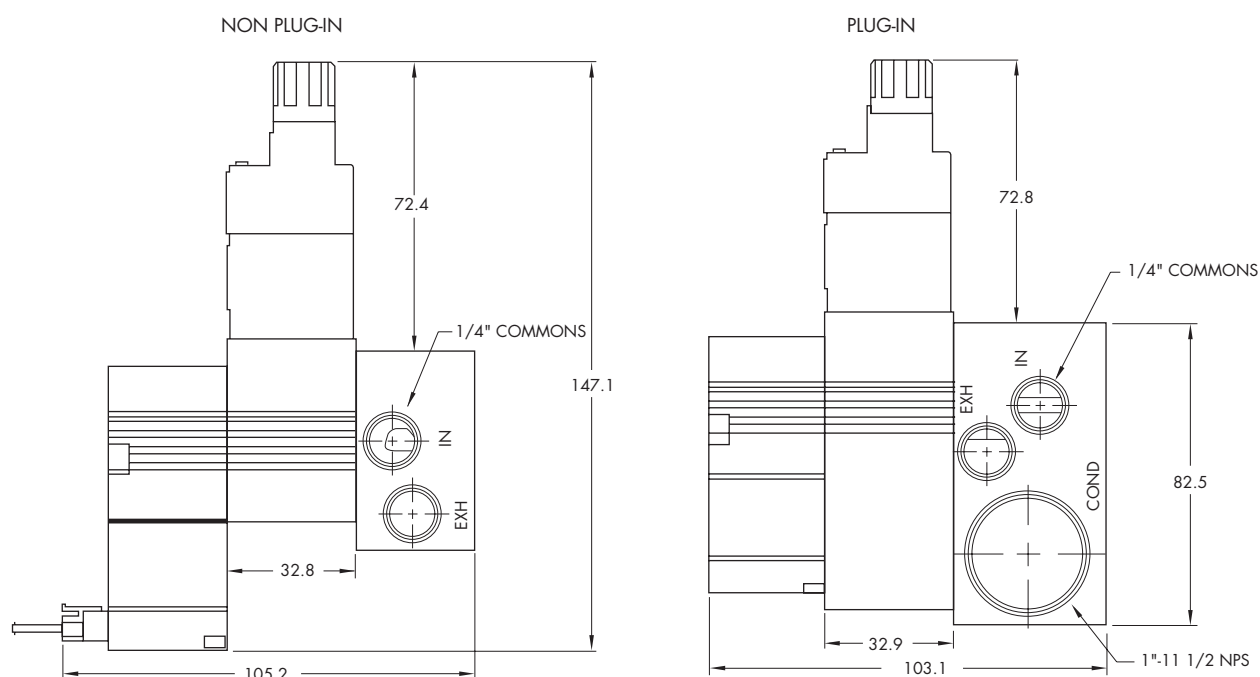
Notes : gages must be ordered separately, not included with regulator.
Recommended gage : 24165-150 (15 mm)

TECHNICAL DATA

Fluid :	Compressed air, inert gases
Pressure range :	0 to 120 PSI
Regulating range :	0 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 :	Cv 0,21

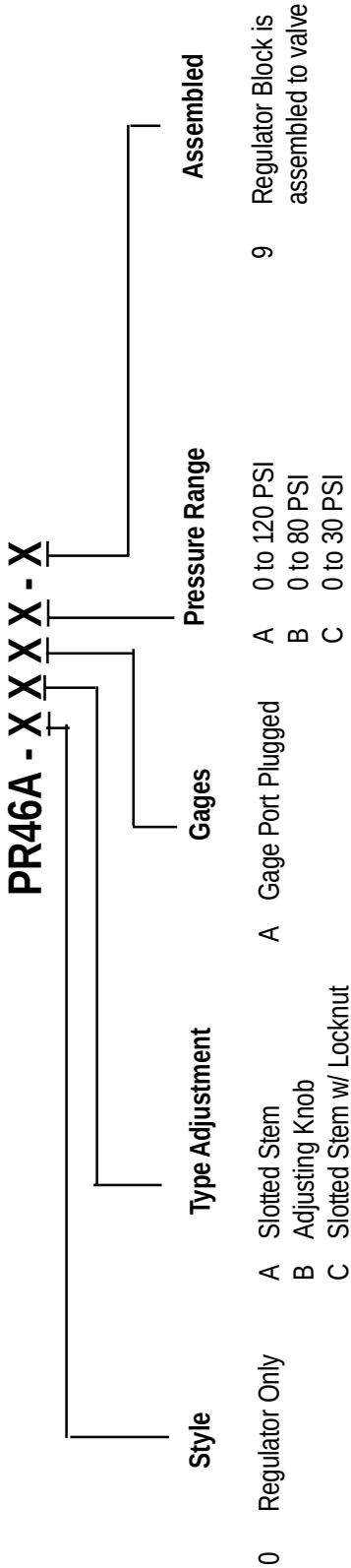
DIMENSIONS

Dimensions shown are metric (mm)



How to Order

36 / 46 Series Regulator



Notizen

as-tec Mechatronik GmbH

A-4840 Vöcklabruck
Linzer Straße 59

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m: office@as-tec.at
w³: www.as-tec.at