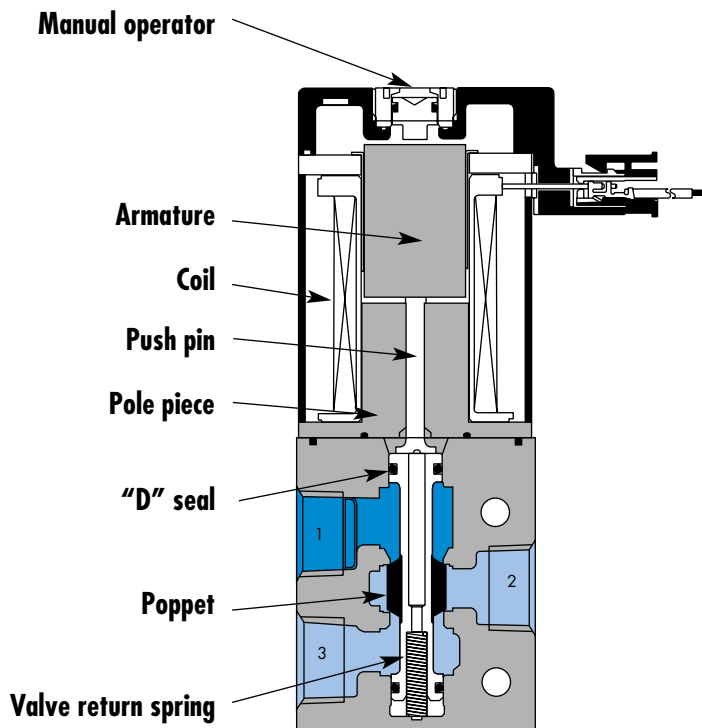


Circuit bar mounting

non plug-in cylinder ports in valve	non plug-in cylinder ports in base	non plug-in cylinder ports in base with Pr. Reg.	non plug-in add-on style cylinder ports in base	non plug-in add-a-unit stations	plug-in	plug-in with Pr. Reg.	add-on style plug-in
add-on style plug in with Pr. Reg.	plug-in add-a-unit stations	plug-in add-a-unit stations with Pr. Reg.					



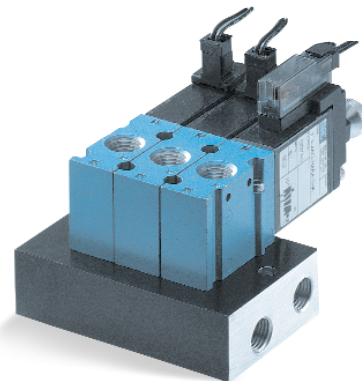
**SERIES FEATURES**

- Balanced poppet equals consistent high shifting forces.
- Valve shifting forces are consistent and independent of pressure fluctuations.
- High solenoid and return spring forces ensure high speed and precise repeatability.
- Built-in wear compensation - valve stroke is shorter than solenoid stroke.
- Constant high flow maintained throughout the pressure range.
- Exhaust contaminants are isolated from the solenoid.
- Full flow exhaust.
- Universal porting - 6 functions in one valve.

Function	Port size (Inlet & Exhaust)	Flow (Max)	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/4" - 3/8"</b>	<b>500 NL/min</b>	non plug-in cylinder ports in valve	<b>26 mm 38 mm</b>

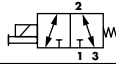
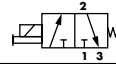
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Valve port size	Universal valve	NC only valve
		
<b>1/8" BSPP</b>	37A-EJO-Hxxx-xxx	37A-FJO-Hxxx-xxx
<b>1/4" BSPP</b>	37A-EKO-Hxxx-xxx	37A-FKO-Hxxx-xxx

SOLENOID OPERATOR >

H **XX X- X XX**

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>A</b> 45 cm	<b>1</b> Non-locking	<b>MA</b> Plug-in wire assy
<b>DB</b> 24VDC (2.4 W)	<b>C</b> 90 cm		<b>MC</b> Plug-in wire assy with light
<b>DF</b> 24VDC (5.2 W)			<b>BA</b> Flying leads
<b>AA</b> 120VAC (must use with rectified connector)			<b>BC</b> Flying leads with light
			<b>HA</b> Plug-in connector with rectifier and light

HOW TO ORDER CIRCUIT BAR (REGULATORS ORDERED SEPARATELY)\*\*

Port size COMMON INLET & EXHAUST	Without regulators (20mm)	With regulators (20mm)
<b>26mm Profile 1/4" BSPP</b>	EBM37A-01CAL-xx	-
<b>38mm Profile 3/8" BSPP</b>	-	EBM37A-01JAL-xx

Number of stations (03=3 stations)

Note : clic for valves mounted on base at the factory, add - 9 to the model number.

\*\* Pressure Regulators :



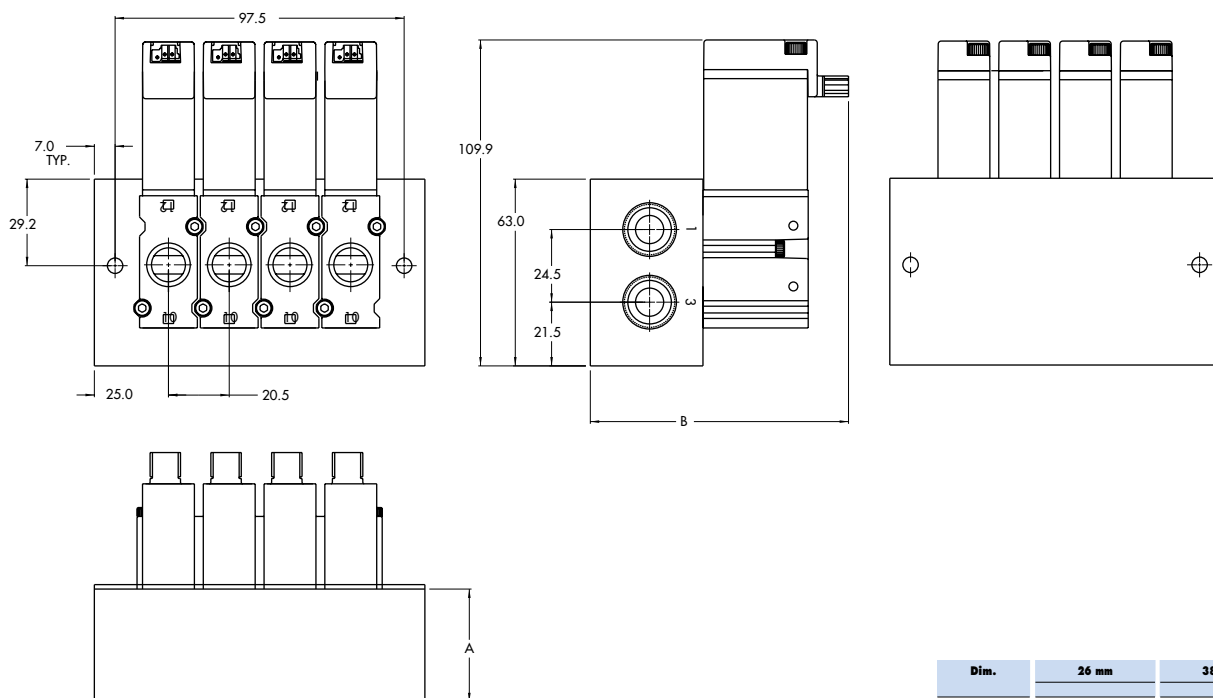
- X=A (0 to 8 BAR)
- X=B (0 to 5.3 BAR)
- X=C (0 to 2 BAR)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37002.  
• Regulator blanking plate : R-47003.
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

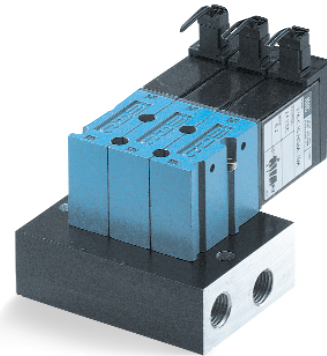
**DIMENSIONS**



Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b> <b>6 mm tube receptacle</b>	<b>500 NL/min</b>	non plug-in cylinder ports in base	<b>26 mm</b>

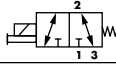
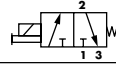
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

#### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C10-Hxxx-xxx	37A-D10-Hxxx-xxx

#### SOLENOID OPERATOR >

H **XX** X- X **XX**'

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>A</b> 45 cm	<b>1</b> Non-locking	<b>MA</b> Plug-in wire assy
<b>DB</b> 24VDC (2.4 W)	<b>c</b> 90 cm		<b>MC</b> Plug-in wire assy with light
<b>DF</b> 24VDC (5.2 W)			<b>BA</b> Flying leads
<b>AA</b> 120VAC (must use with rectified connector)			<b>BC</b> Flying leads with light
			<b>HA</b> Plug-in connector with rectifier and light

#### HOW TO ORDER CIRCUIT BAR

Port size	Side cylinder ports (18 mm)	Bottom cylinder ports (18 mm)
<b>1/8" BSPP</b>	EBM37A-00AAC-xx	EBM37A-00BAC-xx
<b>1/4" BSPP</b>	EBM37A-00AAD-xx	EBM37A-00BAD-xx
<b>6 mm tube receptacle</b>	EBM37A-00AAH-xx	EBM37A-00BAH-xx

Number of stations (03=3 stations)

Note : **9** clic for valves mounted on base at the factory, add - 9 to the model number.

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

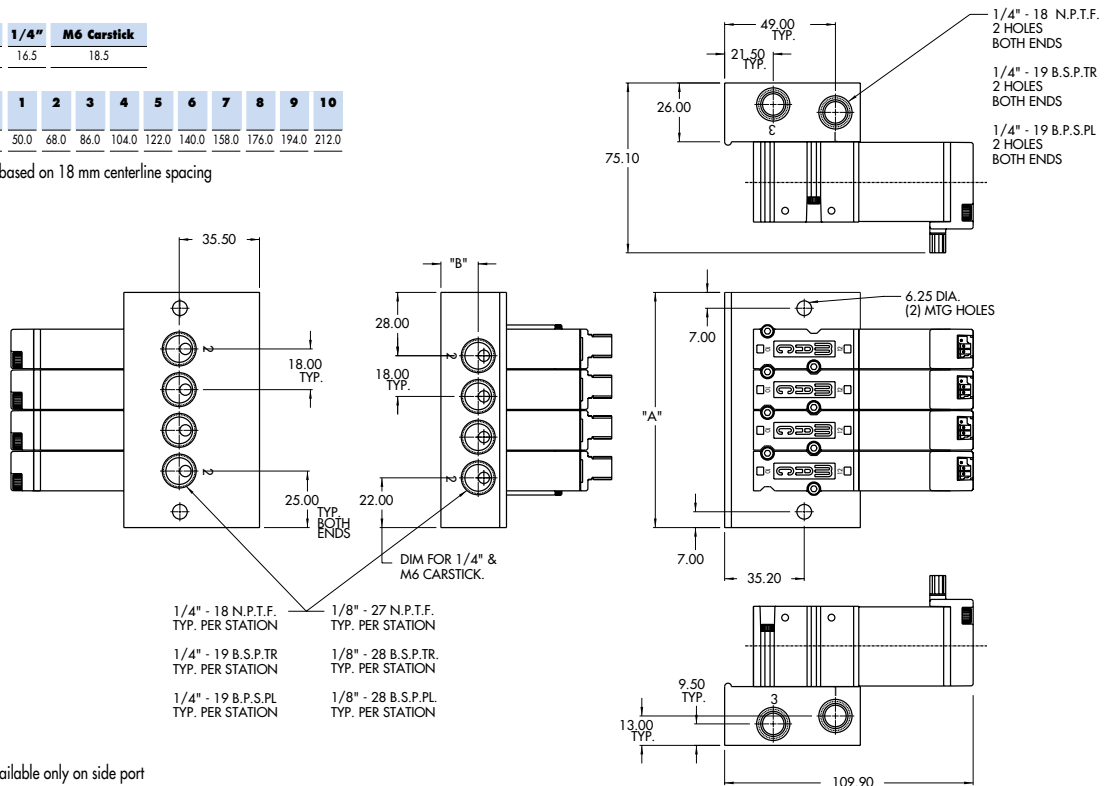
- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Dim.	1/4"	M6 Carstick
"B"	16.5	18.5

Number of stations	1	2	3	4	5	6	7	8	9	10
"A"	50.0	68.0	86.0	104.0	122.0	140.0	158.0	176.0	194.0	212.0

Dimensions are based on 18 mm centerline spacing

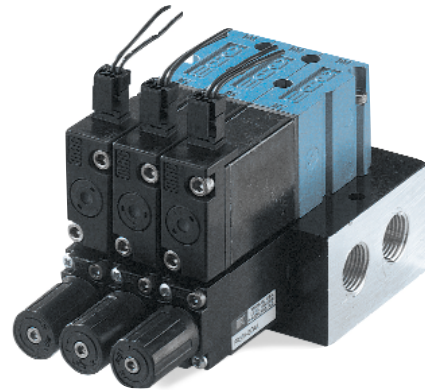


\* M6 Carstick available only on side port

<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>	<b>Profile</b>
<b>3/2 NO-NC</b>	<b>1/8" - 1/4" 6 mm tube receptacle</b>	<b>500 NL/min</b>	non plug-in cylinder ports in base with Pr. Reg.	<b>38 mm</b>

**OPERATIONAL BENEFITS**

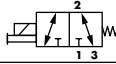
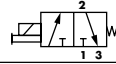
1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



**Reset**

**HOW TO ORDER**

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-Hxxx-xxx	37A-D1O-Hxxx-xxx

**SOLENOID OPERATOR** >

**H XX X- X XX'**

Voltage	Wire length	Manual operator	Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>A</b> 45 cm	<b>1</b> Non-locking	<b>MA</b> Plug-in wire assy
<b>DB</b> 24VDC (2.4 W)	<b>C</b> 90 cm		<b>MC</b> Plug-in wire assy with light
<b>DF</b> 24VDC (5.2 W)			<b>BA</b> Flying leads
<b>AA</b> 120VAC (must use with rectified connector)			<b>BC</b> Flying leads with light
			<b>HA</b> Plug-in connector with rectifier and light

HOW TO ORDER CIRCUIT BAR (REGULATORS ORDERED SEPARATELY)\*\*

Port size	Side cylinder ports (18 mm)	Bottom cylinder ports (18 mm)
<b>1/8" BSPP</b>	EBM37A-00FAC-xx	EBM37A-00GAC-xx
<b>1/4" BSPP</b>	EBM37A-00FAD-xx	EBM37A-00GAD-xx
<b>6 mm tube receptacle</b>	EBM37A-00FAH-xx	EBM37A-00GAH-xx

Number of stations (03=3 stations)

Note : clic for valves mounted on base at the factory, add - 9 to the model number.

\*\* Pressure Regulators :

- X=A (0 to 8 BAR)
- X=B (0 to 5.3 BAR)
- X=C (0 to 2 BAR)

**TECHNICAL  
DATA**

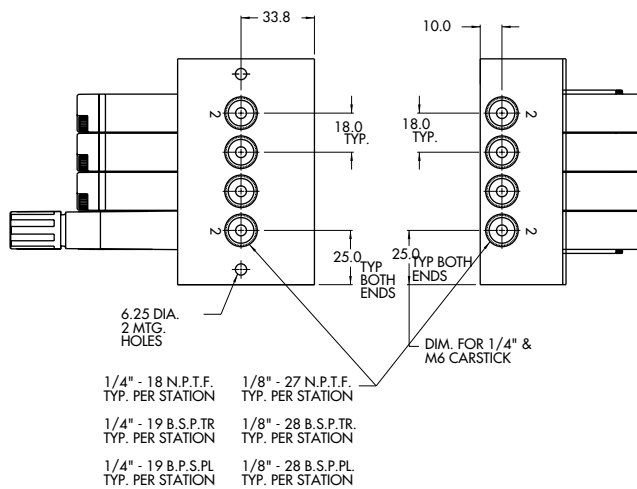
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.  
• Regulator blanking plate : R-47003.
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Number of stations	2	3	4	5	6	7	8	9	10	11
"A"	63.7	81.7	99.7	117.7	135.7	153.7	171.7	189.7	207.7	225.7

Dimensions are based on 18 mm centerline spacing

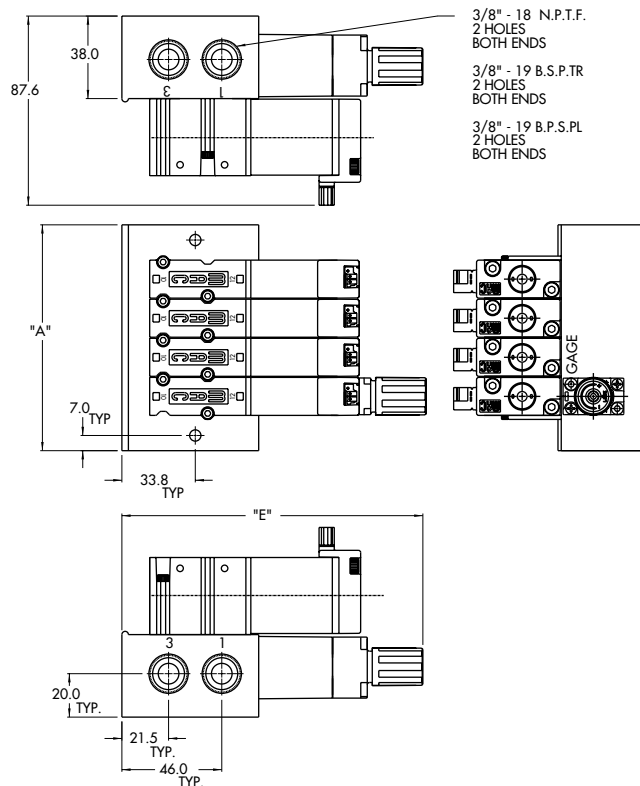


- 1/4" - 18 N.P.T.F. TYP. PER STATION
- 1/4" - 19 B.S.P.TR TYP. PER STATION
- 1/4" - 19 B.P.S.PL TYP. PER STATION
- 1/8" - 27 N.P.T.F. TYP. PER STATION
- 1/8" - 28 B.S.P.TR TYP. PER STATION
- 1/8" - 28 B.S.P.PL TYP. PER STATION

Dim.	Regulator with locking adjusting screw	Regulator with adjusting screw	Regulator with adjusting knob
"E"	135.8	131.8	139.6

\* M6 Carstick available only on side port

Note: Bottom & side cylinder ports not available on the same station

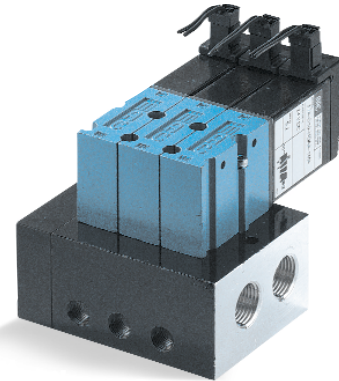


- 3/8" - 18 N.P.T.F. 2 HOLES BOTH ENDS
- 3/8" - 19 B.S.P.TR 2 HOLES BOTH ENDS
- 3/8" - 19 B.P.S.PL 2 HOLES BOTH ENDS

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b> <b>6 mm tube receptacle</b>	<b>500 NL/min</b>	non plug-in add-on style cylinder ports in base	<b>38 mm</b>

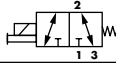
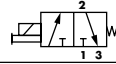
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

#### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-Hxxx-xxx	37A-D1O-Hxxx-xxx

#### SOLENOID OPERATOR >

H **XX X- X XX**

Voltage	Wire length	Manual operator	Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>A</b> 45 cm	<b>1</b> Non-locking	<b>MA</b> Plug-in wire assy
<b>DB</b> 24VDC (2.4 W)	<b>C</b> 90 cm		<b>MC</b> Plug-in wire assy with light
<b>DF</b> 24VDC (5.2 W)			<b>BA</b> Flying leads
<b>AA</b> 120VAC (must use with rectified connector)			<b>BC</b> Flying leads with light
			<b>HA</b> Plug-in connector with rectifier and light

#### HOW TO ORDER CIRCUIT BAR

Port size	Side cylinder ports (18 mm)	Bottom cylinder ports (18 mm)
<b>1/8" BSPP</b>	EBM37A-00DBC-xx	EBM37A-00EBC-xx
<b>1/4" BSPP</b>	EBM37A-00DBD-xx	EBM37A-00EBD-xx
<b>6 mm tube receptacle</b>	EBM37A-00DBH-xx	EBM37A-00EBH-xx

Number of stations (03=3 stations)

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
add-a-unit stations may be added to above bars. Clic here for model numbers.

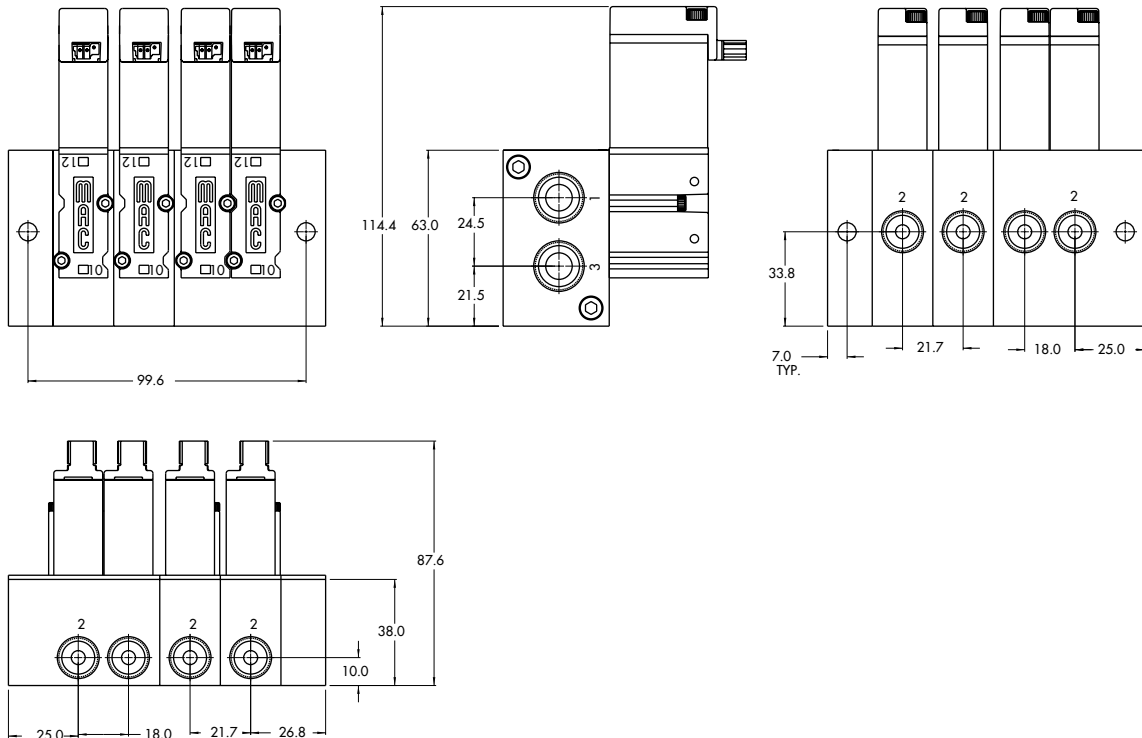


**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001. • End plate Kit : M-37005-0
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

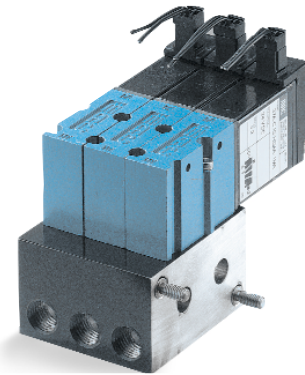


Note: Bottom & side cylinder ports not available on the same station

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b> <b>6 mm tube receptacle</b>	<b>500 NL/min</b>	non plug-in odd-a-unit stations	<b>38 mm</b>

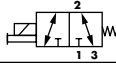
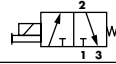
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

#### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-Hxxx-xxx	37A-D1O-Hxxx-xxx

#### SOLENOID OPERATOR >

H **XX X- X XX**

Voltage	Wire length	Manual operator	Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>A</b> 45 cm	<b>1</b> Non-locking	<b>MA</b> Plug-in wire assy
<b>DB</b> 24VDC (2.4 W)	<b>C</b> 90 cm		<b>MC</b> Plug-in wire assy with light
<b>DF</b> 24VDC (5.2 W)			<b>BA</b> Flying leads
<b>AA</b> 120VAC (must use with rectified connector)			<b>BC</b> Flying leads with light
			<b>HA</b> Plug-in connector with rectifier and light

#### HOW TO ORDER CIRCUIT BAR

Port size	Side cylinder ports (18 mm)	Bottom cylinder ports (18 mm)
<b>1/8" BSPP</b>	EBM37A-00DCC-xx	EBM37A-00ECC-xx
<b>1/4" BSPP</b>	EBM37A-00DCD-xx	EBM37A-00ECD-xx
<b>6 mm tube receptacle</b>	EBM37A-00DCH-xx	EBM37A-00ECH-xx

Number of stations (01, 02, 03 or 04)

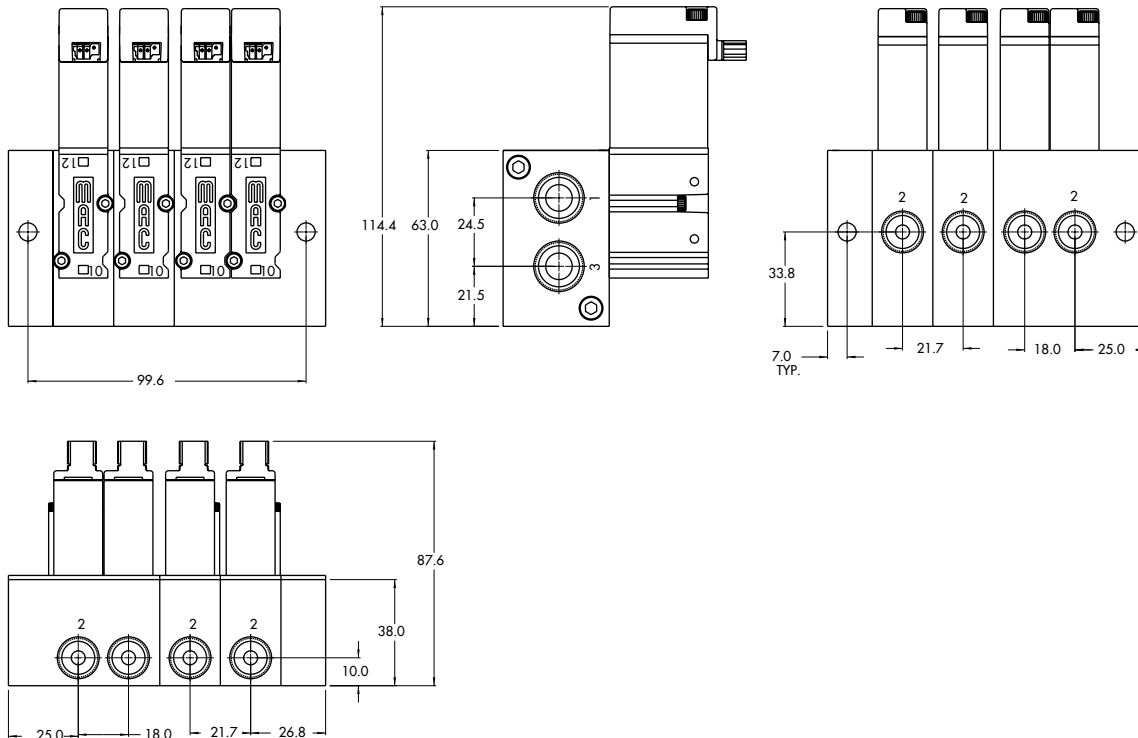
Note : clic for valves mounted on base at the factory, add - 9 to the model number.

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note :
  - Valve and coil are not interchangeable.
- Spare parts :
  - Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.
  - O-ring port seal (x2) : 17015-01. • Tie rod (x2) : 79007-01 (one station length)
- Options :
  - Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

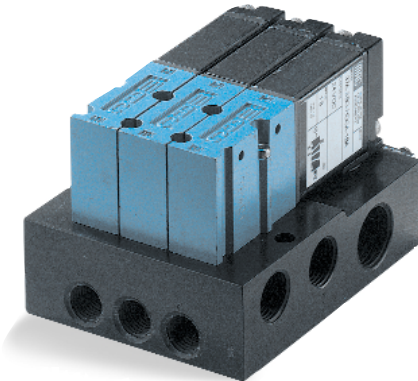


Note: Bottom & side cylinder ports not available on the same station

<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>	<b>Profile</b>
<b>3/2 NO-NC</b>	<b>1/8" - 1/4" 6 mm tube receptacle</b>	<b>500 NL/min</b>	plug-in	<b>32.5 mm</b>

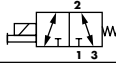
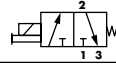
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

#### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-HxxP-xxx	37A-D1O-HxxP-xxx

#### SOLENOID OPERATOR >

H **XX** P- **X** **XX**'

<b>XX</b> Voltage	<b>X</b> Manual operator	<b>XX</b> Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>1</b> Non-locking	<b>FA</b> Plug-in
<b>DB</b> 24VDC (2.4 W)		<b>FC</b> Plug-in with light
<b>DF</b> 24VDC (5.2 W)		<b>FE</b> Plug-in with suppression diode
<b>AA</b> 120VAC (Mod. No. required see below)		<b>FG</b> Plug-in with suppression diode with LED light

#### HOW TO ORDER "PLUG-IN" CIRCUIT BAR\*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00AAC-A0xx	ECD37A-00BAC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00AAD-A0xx	ECD37A-00BAD-A0xx
<b>6 mm tube receptacle</b>	18	ECD37A-00AAG-A0xx	ECD37A-00BAG-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01AAC-C0xx	ECD37A-01BAC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01AAD-C0xx	ECD37A-01BAD-C0xx
<b>6 mm tube receptacle</b>	30	ECD37A-01AAG-C0xx	ECD37A-01BAG-C0xx

Number of stations (03=3 stations)

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
 clic for multi-pin connector (9, 15 or 25).  
 for AC voltage use mod. FWR2 after circuit bar model number.

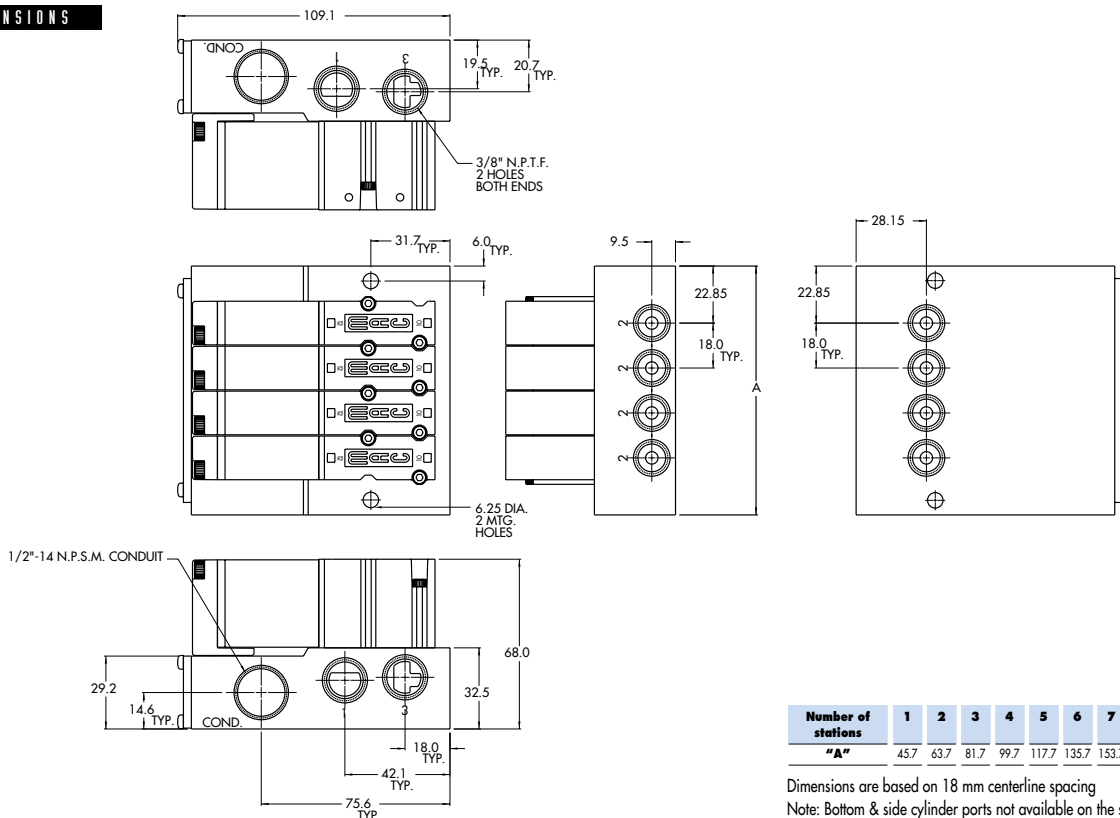
A0 = without light  
 AA = with light (120V)  
 AB = with light (240V)  
 AD = with light (24V)  
 C0 = terminal strip

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.  
• Base wire plug-in protector : 16520.
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**



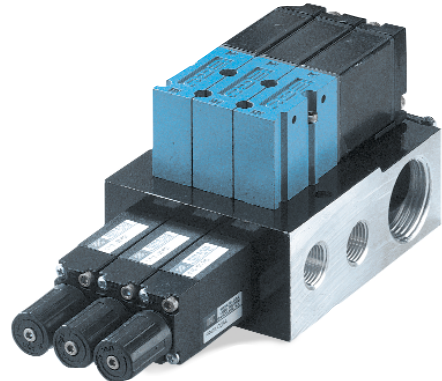
Number of stations	1	2	3	4	5	6	7	8	9	10
"A"	45.7	63.7	81.7	99.7	117.7	135.7	153.7	171.7	189.7	207.7

Dimensions are based on 18 mm centerline spacing  
Note: Bottom & side cylinder ports not available on the same station

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b>	<b>500 NL/min</b>	plug-in with Pr. Reg.	<b>44 mm</b>

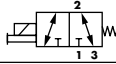
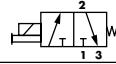
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

#### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C10-HxxP-xxx	37A-D10-HxxP-xxx

#### SOLENOID OPERATOR >

H **XX** P- **X** **XX**'

XX Voltage	X Manual operator	XX Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>1</b> Non-locking	<b>FA</b> Plug-in
<b>DB</b> 24VDC (2.4 W)		<b>FC</b> Plug-in with light
<b>DF</b> 24VDC (5.2 W)		<b>FE</b> Plug-in with suppression diode
<b>AA</b> 120VAC (Mod. No. required see below)		<b>FG</b> Plug-in with suppression diode with LED light

#### HOW TO ORDER "PLUG-IN" CIRCUIT BAR (REGULATORS ORDERED SEPARATELY)\*\*

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00CDC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00CDD-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01CDC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01CDD-C0xx

Number of stations (03=3 stations)

\*\* Other options available, consult factory.

Note : clic for valves mounted on base at the factory, add - 9 to the model number.

clic for multi-pin connector (9, 15 or 25).

for AC voltage use mod. FWR2 after circuit bar model number.

\*\* Pressure Regulators :

X=A (0 to 8 BAR)

X=B (0 to 5.3 BAR)

X=C (0 to 2 BAR)

A0 = without light

AA = with light (120V)

AB = with light (240V)

AD = with light (24V)

C0 = terminal strip

CA = terminal strip with light (120V)

CB = terminal strip with light (240V)

CD = terminal strip with light (24V)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

Note :

- Valve and coil are not interchangeable.

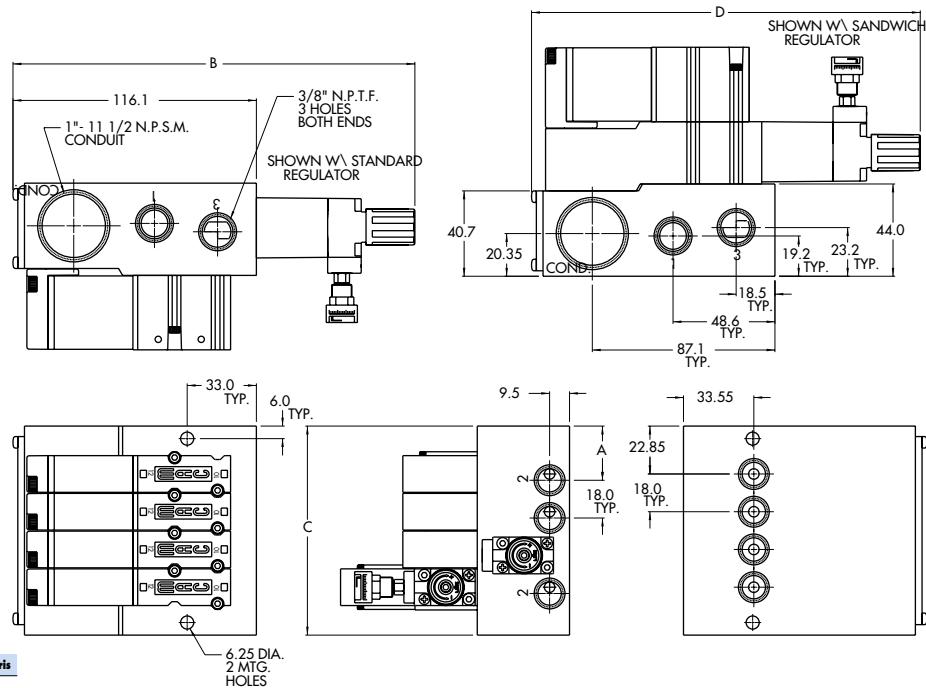
Spare parts :

- Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.
- Base wire plug-in protector : 16520. • Regulator blanking plate : R-47003.

Options :

- Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**



Dim.	1/4"	1/8"	6 mm Legris
"A"	25.85	25.85	22.85

Dim.	Regulator with locking adjusting screw	Regulator with adjusting screw	Regulator with adjusting knob
"B"	188.8	184.7	191.7
"D"	182.5	178.4	185.4

Number of stations	1	2	3	4	5	6	7	8	9	10
"C"	45.7	63.7	81.7	99.7	117.7	135.7	153.7	171.7	189.7	207.7

Dimensions are based on 18 mm centerline spacing

Note: Bottom & side cylinder ports not available on the same station

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b> <b>6 mm tube receptacle</b>	<b>500 NL/min</b>	add-on style plug-in	<b>44 mm</b>

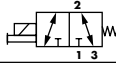
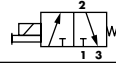
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.

Reset

### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-HxxP-xxx	37A-D1O-HxxP-xxx

SOLENOID OPERATOR >

H **XX** P- **X** **XX**\*

<b>XX</b> Voltage	<b>X</b> Manual operator	<b>XX</b> Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>1</b> Non-locking	<b>FA</b> Plug-in
<b>DB</b> 24VDC (2.4 W)		<b>FC</b> Plug-in with light
<b>DF</b> 24VDC (5.2 W)		<b>FE</b> Plug-in with suppression diode
<b>AA</b> 120VAC (Mod. No. required see below)		<b>FG</b> Plug-in with suppression diode with LED light

HOW TO ORDER "PLUG-IN" CIRCUIT BAR\*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00AEC-A0xx	ECD37A-00BEC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00AED-A0xx	ECD37A-00BED-A0xx
<b>6 mm tube receptacle</b>	18	ECD37A-00AEG-A0xx	ECD37A-00BEG-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01AEC-C0xx	ECD37A-01BEC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01AED-C0xx	ECD37A-01BED-C0xx
<b>6 mm tube receptacle</b>	30	ECD37A-01AEG-C0xx	ECD37A-01BEG-C0xx

Number of stations (03=3 stations)

\*\* Other options available, consult factory.

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
 clic for multi-pin connector (9, 15 or 25).  
 for AC voltage use mod. FWR2 after circuit bar model number.  
 add-a-unit stations may be added to above bars. Clic here for model numbers.

A0 = without light  
 AA = with light (120V)  
 AB = with light (240V)  
 AD = with light (24V)  
 C0 = terminal strip  
 CA = terminal strip with light (120V)  
 CB = terminal strip with light (240V)  
 CD = terminal strip with light (24V)



**TECHNICAL  
DATA**

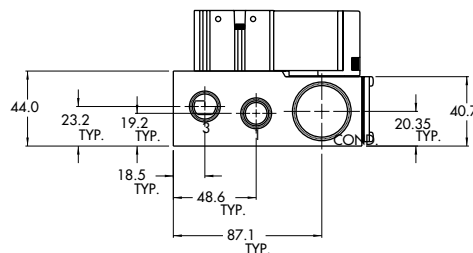
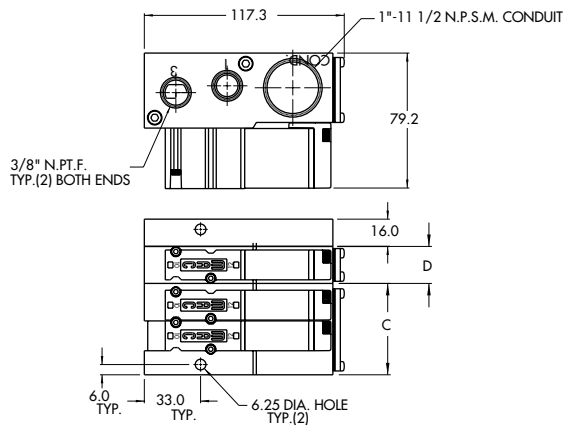
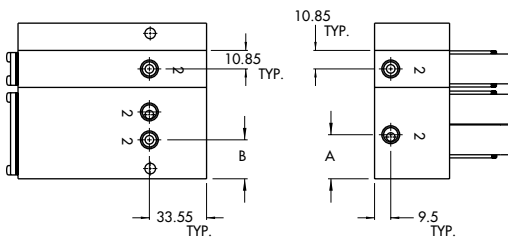
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001. • End plate kit : M-37003-01
- Options : • Base wire plug-in protector : 16520. • Isolator disc between add-a-units : 28438. • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Number of stations	1	2	3	4	5	6	7	8	9	10
"C" w/regulator	-	53.6	71.6	89.6	107.6	125.6	143.6	161.6	179.6	197.6
"C" w/o regulator	-	51.85	69.85	87.85	105.85	123.85	141.85	159.85	177.85	195.85
"D"	21.7	39.7	57.7	75.7	-	-	-	-	-	-

Dimensions are based on 18 mm centerline spacing  
Note: Bottom & side cylinder ports not available on the same station



Dim.	1/8"	1/4"	6 mm Legris	1/8" w/regulator	1/4" w/regulator
"A"	22.65	24.20	22.85	-	-
"B"	22.85	22.85	25.85	21.20	22.60

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b>	<b>500 NL/min</b>	add-on style plug in with Pr. Reg.	<b>44 mm</b>

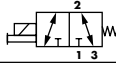
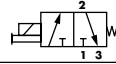
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-HxxP-xxx	37A-D1O-HxxP-xxx

SOLENOID OPERATOR >

H <b>XX</b> P- X <b>XX</b>		
<b>XX</b> Voltage	<b>X</b> Manual operator	<b>XX</b> Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>1</b> Non-locking	<b>FA</b> Plug-in
<b>DB</b> 24VDC (2.4 W)		<b>FC</b> Plug-in with light
<b>DF</b> 24VDC (5.2 W)		<b>FE</b> Plug-in with suppression diode
<b>AA</b> 120VAC (Mod. No. required see below)		<b>FG</b> Plug-in with suppression diode with LED light

HOW TO ORDER "PLUG-IN" CIRCUIT BAR (REGULATORS ORDERED SEPARATELY)\*\*

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00CEC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00CED-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01CEC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01CED-C0xx

Number of stations (03=3 stations)

\*\* Other options available, consult factory.

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
clic for multi-pin connector (9, 15 or 25).

for AC voltage use mod. FWR2 after circuit bar model number.

add-a-unit stations may be added to above bars. Clic here for model numbers.

\*\* Pressure Regulators :

X=A (0 to 8 BAR)

X=B (0 to 5.3 BAR)

X=C (0 to 2 BAR)

A0 = without light

AA = with light (120V)

AB = with light (240V)

AD = with light (24V)

CO = terminal strip

CA = terminal strip with light (120V)

CB = terminal strip with light (240V)

CD = terminal strip with light (24V)

**TECHNICAL  
DATA**

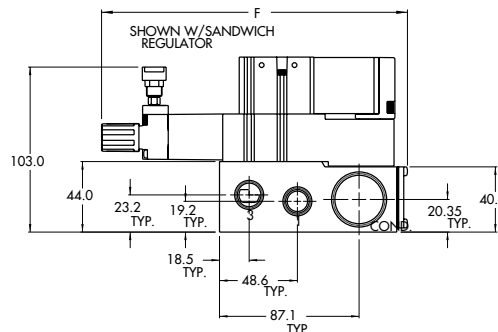
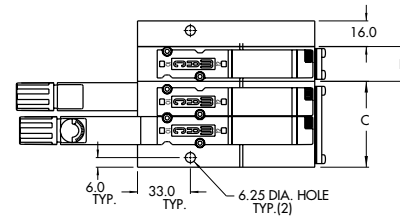
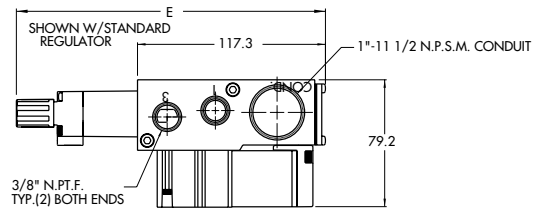
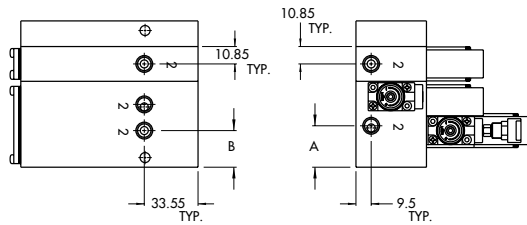
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001. • End plate kit : M-37003-01
- Options : • Base wire plug-in protector : 16520. • Isolator disc between add-a-units : 28438. • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Number of stations	1	2	3	4	5	6	7	8	9	10
"C" w/regulator	-	53.6	71.6	89.6	107.6	125.6	143.6	161.6	179.6	197.6
"C" w/o regulator	-	51.85	69.85	87.85	105.85	123.85	141.85	159.85	177.85	195.85
"D"	21.7	39.7	57.7	75.7	-	-	-	-	-	-

Dimensions are based on 18 mm centerline spacing  
 Note: Bottom & side cylinder ports not available on the same station



Dim.	1/8"	1/4"	6 mm Legris	1/8" w/regulator	1/4" w/regulator
"A"	22.65	24.20	22.85	-	-
"B"	22.85	22.85	25.85	21.20	22.60

Dim.	Regulator with locking adjusting screw	Regulator with adjusting screw	Regulator with adjusting knob
"E"	188.8	184.7	191.7
"F"	182.5	178.4	185.4

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b> <b>6 mm tube receptacle</b>	<b>500 NL/min</b>	plug-in add-a-unit stations	<b>44 mm</b>

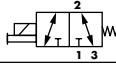
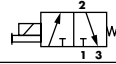
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.

Reset

### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-HxxP-xxx	37A-D1O-HxxP-xxx

SOLENOID OPERATOR >

H **XX** P- **X** **XX**\*

<b>XX</b> Voltage	<b>X</b> Manual operator	<b>XX</b> Electrical connection
<b>DC</b> 24VDC (1.8 W)	<b>1</b> Non-locking	<b>FA</b> Plug-in
<b>DB</b> 24VDC (2.4 W)		<b>FC</b> Plug-in with light
<b>DF</b> 24VDC (5.2 W)		<b>FE</b> Plug-in with suppression diode
<b>AA</b> 120VAC (Mod. No. required see below)		<b>FG</b> Plug-in with suppression diode with LED light

HOW TO ORDER "PLUG-IN" CIRCUIT BAR\*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00AFC-A0xx	ECD37A-00BFC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00AFD-A0xx	ECD37A-00BFD-A0xx
<b>6 mm tube receptacle</b>	18	ECD37A-00AFG-A0xx	ECD37A-00BFG-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01AFC-C0xx	ECD37A-01BFC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01AFD-C0xx	ECD37A-01BFD-C0xx
<b>6 mm tube receptacle</b>	30	ECD37A-01AFG-C0xx	ECD37A-01BFG-C0xx

Number of stations (03=3 stations) - maximum length is 4 stations.

\*\* Other options available, consult factory.

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
for AC voltage use mod. FWR2 after circuit bar model number.  
when add-a-unit stations are added to bars with a multi-pin connector, mod SD03 should be included with add-a-unit model number.

A0 = without light  
AA = with light (120V)  
AB = with light (240V)  
AD = with light (24V)  
C0 = terminal strip  
CA = terminal strip with light (120V)  
CB = terminal strip with light (240V)  
CD = terminal strip with light (24V)

**TECHNICAL  
DATA**

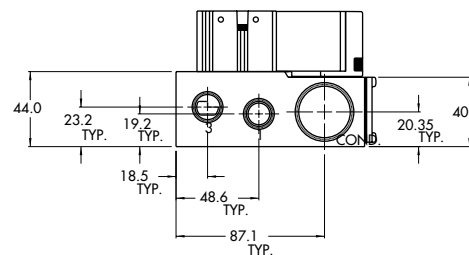
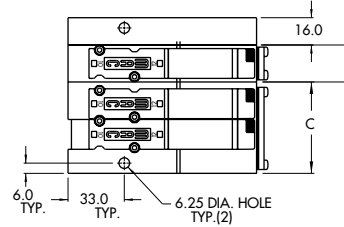
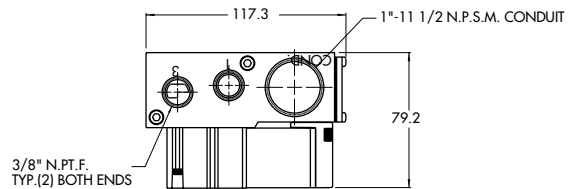
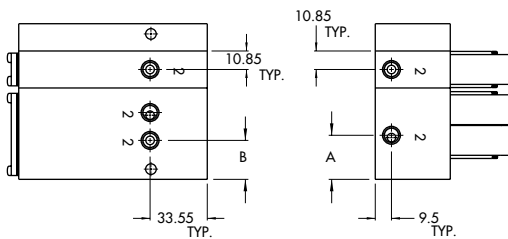
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.  
• O-ring port seal (x2) : 17015-01 • Tie rod (x2) : 79007-01 (one station length).
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Number of stations	1	2	3	4	5	6	7	8	9	10
"C" w/regulator	-	53.6	71.6	89.6	107.6	125.6	143.6	161.6	179.6	197.6
"C" w/o regulator	-	51.85	69.85	87.85	105.85	123.85	141.85	159.85	177.85	195.85
"D"	21.7	39.7	57.7	75.7	-	-	-	-	-	-

Dimensions are based on 18 mm centerline spacing  
Note: Bottom & side cylinder ports not available on the same station



Dim.	1/8"	1/4"	6 mm Legris	1/8" w/regulator	1/4" w/regulator
"A"	22.65	24.20	22.85	-	-
"B"	22.85	22.85	25.85	21.20	22.60

Function	Port size	Flow [Max]	Circuit bar mounting	Profile
<b>3/2 NO-NC</b>	<b>1/8" - 1/4"</b>	<b>500 NL/min</b>	plug-in add-a-unit stations with Pr. Reg.	<b>44 mm</b>

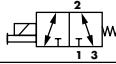
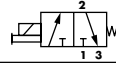
### OPERATIONAL BENEFITS

1. Direct solenoid operated valve.
2. Balanced poppet, immune to variations of pressure.
3. Short stroke with high flow.
4. The patented solenoid develops high shifting forces.
5. Powerful return spring.
6. Manual operator standard on all valves.

Reset

### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Port size (see base)	Universal valve	NC only valve
		
<b>Valve less base</b>	37A-C1O-HxxP-xxx	37A-D1O-HxxP-xxx

SOLENOID OPERATOR >

H XX P- X XX*		
XX Voltage	X Manual operator	XX Electrical connection
DC 24VDC (1.8 W)	1 Non-locking	FA Plug-in
DB 24VDC (2.4 W)		FC Plug-in with light
DF 24VDC (5.2 W)		FE Plug-in with suppression diode
AA 120VAC (Mod. No. required see below)		FG Plug-in with suppression diode with LED light

HOW TO ORDER "PLUG-IN" CIRCUIT BAR (REGULATORS ORDERED SEPARATELY)\*\*

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" BSPP</b>	18	ECD37A-00CFC-A0xx
<b>1/4" BSPP</b>	18	ECD37A-00CFD-A0xx
<b>1/8" BSPP</b>	30	ECD37A-01CFC-C0xx
<b>1/4" BSPP</b>	30	ECD37A-01CFD-C0xx

Number of stations (03=3 stations) - maximum length is 4 stations.

\*\* Other options available, consult factory.

Note : clic for valves mounted on base at the factory, add - 9 to the model number.  
for AC voltage use mod. FWR2 after circuit bar model number.  
when add-a-unit stations are added to bars with a multi-pin connector, mod SD03 should be included with add-a-unit model number.

\*\* Pressure Regulators :

X=A (0 to 8 BAR)  
X=B (0 to 5.3 BAR)  
X=C (0 to 2 BAR)

A0 = without light  
AA = with light (120V)  
AB = with light (240V)  
AD = with light (24V)  
C0 = terminal strip  
CA = terminal strip with light (120V)  
CB = terminal strip with light (240V)  
CD = terminal strip with light (24V)

**TECHNICAL  
DATA**

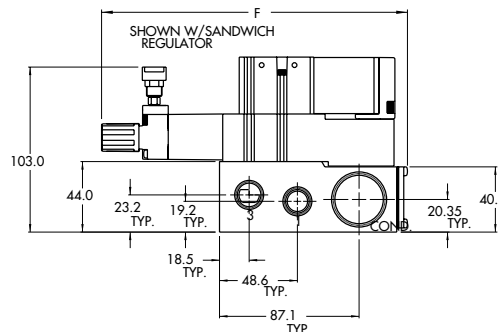
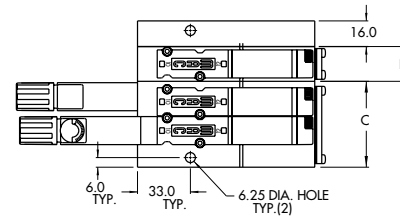
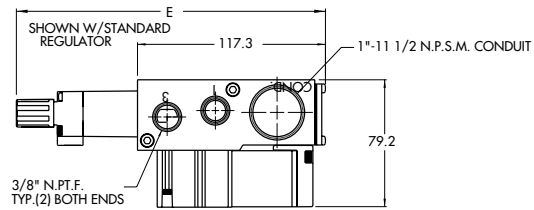
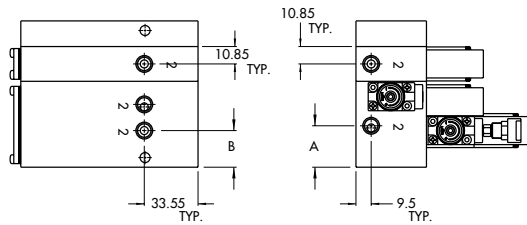
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 8 BAR
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	4.3 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	5.2 W : 500 NL/min, 2.4 W : 250 NL/min, 1.8 W : 150 NL/min
<b>Leak rate :</b>	50 cm <sup>3</sup> /min
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Power :</b>	5.2 W - 2.4 W - 1.8 W - 1.0 W
<b>Response times :</b>	Energize : 17.0 ms
<b>(with 5.2 W coil)</b>	De-energize : 6.0 ms

- Note : • Valve and coil are not interchangeable.
- Spare parts : • Seal between valve and bar : 16630. • Mounting screw (x2) : 35043. • Blanking plate : M-37001.  
• O-ring port seal (x2) : 17015-01 • Tie rod (x2) : 79007-01 (one station length). • Regulator blanking plate : R-47003.
- Options : • Isolation of inlet and/or exhaust. Special bar. Consult factory. • NPTF Threads.

**DIMENSIONS**

Number of stations	1	2	3	4	5	6	7	8	9	10
"C" w/regulator	-	53.6	71.6	89.6	107.6	125.6	143.6	161.6	179.6	197.6
"C" w/o regulator	-	51.85	69.85	87.85	105.85	123.85	141.85	159.85	177.85	195.85
"D"	21.7	39.7	57.7	75.7	-	-	-	-	-	-

Dimensions are based on 18 mm centerline spacing  
Note: Bottom & side cylinder ports not available on the same station



Dim.	1/8"	1/4"	6 mm Legris	1/8" w/regulator	1/4" w/regulator
"A"	22.65	24.20	22.85	-	-
"B"	22.85	22.85	25.85	21.20	22.60

Dim.	Regulator with locking adjusting screw	Regulator with adjusting screw	Regulator with adjusting knob
"E"	188.8	184.7	191.7
"F"	182.5	178.4	185.4



## Section 2 Options





0 p t i o n s

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**Codification table for voltages / Wire length / Manual operators / Electrical connections**

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VALVE CODE ➤ **-HXX X - X XX**  
**1 2 3 4**

**OPTIONS AVAILABLE FOR**

- Solenoid valves 37 & 47 Series

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### 1. VOLTAGE

- H XX	X - X XX	VOLTAGE
		DC Options
<b>DA</b>		24 VDC (5.2 W)
<b>DB</b>		24 VDC (2.4 W)
<b>DC</b>		24 VDC (1.8 W)
<b>DD</b>		24 VDC (1.0 W)
<b>DF</b>		12 VDC (5.2 W)
<b>DG</b>		12 VDC (2.4 W)
<b>DH</b>		12 VDC (1.8 W)
<b>DJ</b>		12 VDC (1.0 W)
<b>DL</b>		120 VDC (6.3 W)
		AC Options (50/60hz)
<b>AA</b>		120 VAC (6.7 W)
<b>AB</b>		220 VAC (5.6 W)
<b>AC</b>		240 VAC (5.8 W)
<b>AD</b>		24 VAC (7.8 W)

Note : AC Voltages only available with "H" & "F" type connectors. MOD FWR2 must be used with the "F" type connectors.

### 2. WIRE LENGTH

- H XX	X - X XX	WIRE LENGTH
<b>O</b>		No lead wire
<b>A</b>		45 cm
<b>B</b>		60 cm
<b>C</b>		90 cm
<b>D</b>		120 cm
<b>E</b>		180 cm
<b>F</b>		240 cm
<b>G</b>		305 cm
<b>H</b>		366 cm
<b>P</b>		Plug-in (used only with "F" type connector Opts.)

Use "O" with MJ & MM Opts.

### 3. MANUAL OPERATOR

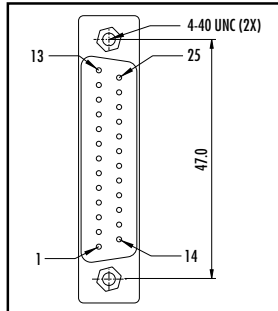
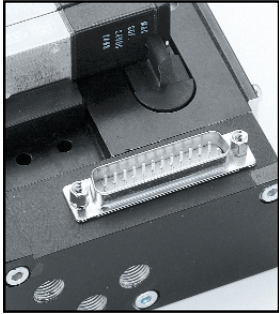
- H XX	X - X XX	MANUAL OPERATOR
<b>0</b>		No operator
<b>1</b>		Non-locking recessed
<b>2</b>		Locking recessed
<b>3</b>		Non-locking extended
<b>4</b>		Locking extended

#### 4. ELECTRICAL CONNECTION

- H XX X - X XX	ELECTRICAL CONNECTION
<b>BA</b>	Flying leads
<b>BB</b>	Flying leads with ground wire
<b>BC</b>	Flying leads with led light
<b>BD</b>	Flying leads with led light & ground wire
<b>BE</b>	Flying leads with suppression diode
<b>BF</b>	Flying leads with suppression diode & ground wire
<b>BG</b>	Flying leads with suppression diode plus led light
<b>BH</b>	Flying leads with suppression diode plus led light & ground wire
<b>*BN</b>	Flying leads with suppression diode plus blocking diode
<b>*BP</b>	Flying leads with suppression diode plus blocking diode & ground wire
<b>*BR</b>	Flying leads with suppression diode plus blocking diode & led light
<b>*BS</b>	Flying leads with suppression diode plus blocking diode & led light & ground wire
<b>FA</b>	Plug-in
<b>FB</b>	Plug-in with ground wire
<b>FC</b>	Plug-in with led light
<b>FD</b>	Plug-in with led light & ground wire
<b>FE</b>	Plug-in with suppression diode
<b>FF</b>	Plug-in with suppression diode & ground wire
<b>FG</b>	Plug-in with suppression diode plus led light
<b>FH</b>	Plug-in with suppression diode plus led light & ground wire
	Note : FA ---- FH options for use with ECD type circuit bars
<b>HA</b>	Circuit board plug-in with full wave rectifier & led light
<b>HB</b>	Circuit board with full wave rectifier & led with ground wire
<b>HC</b>	Same as "HA" without lead wires
<b>HD</b>	Same as "HB" without lead wires
<b>HL</b>	Circuit board plug-in with suppression diode plus blocking diode & led light
<b>HN</b>	Same as "HL" without lead wires
<b>MA</b>	Plug-in wire assembly
<b>MB</b>	Plug-in wire assembly with ground wire
<b>MC</b>	Plug-in wire assembly with led light
<b>MD</b>	Plug-in wire assembly led light & ground wire
<b>ME</b>	Plug-in wire assembly with suppression diode
<b>MF</b>	Plug-in wire assembly with suppression diode & ground wire
<b>*MG</b>	Plug-in wire assembly suppression diode plus led light
<b>*MH</b>	Plug-in wire assembly suppression diode plus led light & ground wire
<b>*MN</b>	Plug-in wire assembly with suppression diode plus blocking diode
<b>*MP</b>	Plug-in wire assembly with suppression diode plus blocking diode & ground wire
<b>MR</b>	Plug-in wire assembly with suppression diode plus blocking diode & led light
<b>MS</b>	Plug-in wire assembly with suppression diode plus blocking diode & led light & ground wire
<b>MJ</b>	Plug-in housing w/o wire assembly ("MA" option without wire assembly)
<b>MM</b>	Plug-in housing w/o wire assembly ("MB" option without wire assembly)

\* Blocking diode is in lead wire.

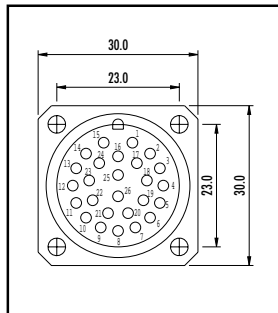
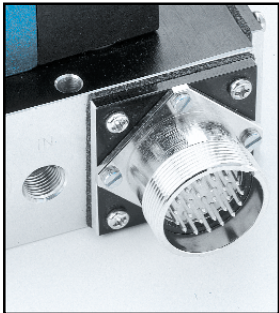
Connector SUB\_D 25 (option ZZZY = SUBY ; Y = cable length)



TECHNICAL DATA

- Type «SUB\_D»
- Number of contacts : 25
- Solder termination (Dia. 0.6 mm/0.14 mm<sup>2</sup>/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance  $\geq 10^{10} \Omega$
- Protection class IP40 (DIN 40050)
- Number of solenoids : 20 max.
- Max. 24 V= / 5.4 W per solenoid
- 5 common wires
- Female plug supplied with circuit bar

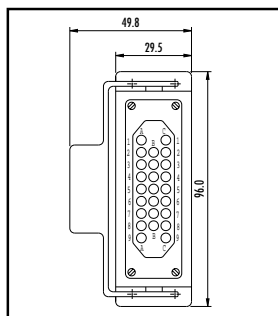
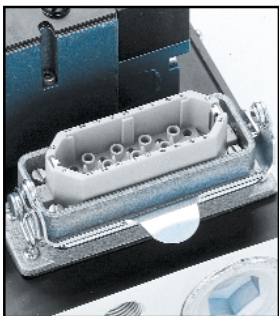
Connector RND (option ZZZY = RNDY ; Y = cable length)



TECHNICAL DATA

- Type «Round connector»
- Number of contacts : 26
- Solder termination (Dia. 1 mm/1 mm<sup>2</sup>/17 AWG)
- Operating current 7.5 A/contact
- Rated voltage 250 V~
- Insulation resistance  $\geq 10^8 \Omega$
- Cable entry PG16
- Temp. range -40° to +125°C
- Protection class IP65 (DIN 40050)
- Number of solenoids : 24 max.
- 1 common and 1 ground
- All voltages
- Female plug supplied with circuit bar

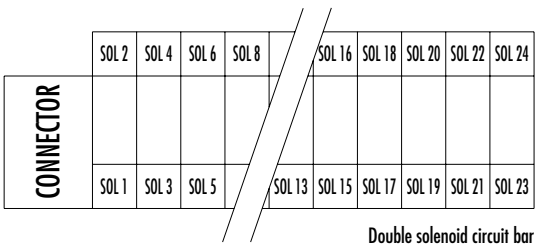
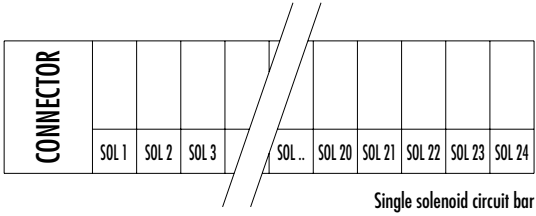
Connector HDT (option ZZZY = HDTY ; Y = cable length)



TECHNICAL DATA

- Type «Heavy duty»
- Number of contacts : 25
- Solder termination (Dia. 1.4 mm/0.75 mm<sup>2</sup>/18 AWG)
- Operating current 10 A/contact
- Rated voltage 250 V~
- Insulation resistance  $\geq 10^{10} \Omega$
- Cable entry PG16
- Temp. range -40° to +125°C
- Protection class IP65 (DIN 40050)
- Number of solenoids : 24 max.
- 1 common and 1 ground
- All voltages
- Female plug supplied with circuit bar

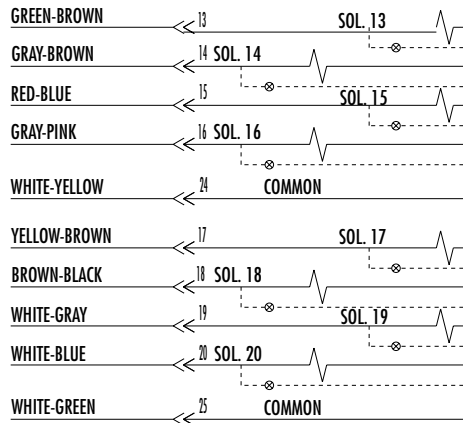
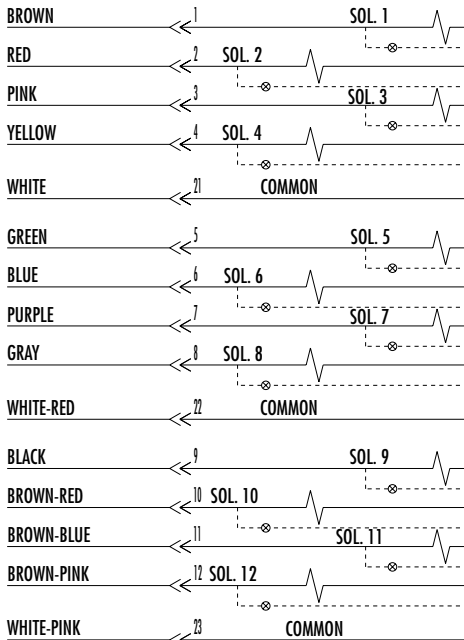
Connector termination details



Connector SUB\_025 [option ZZZY = SUBY ; Y = cable length]

TECHNICAL DATA PREWIRED CABLE

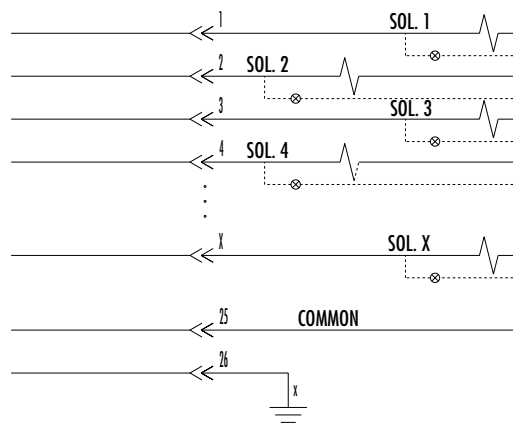
- Type : LIYY -0.14 mm<sup>2</sup>
- Dia. ca. 9.3 mm
- Insulation resistance : 20 MΩ for 1000 meter
- Temp. range -5° to +80°C
- Rated voltage : 250 V~
- PVC core insulation and sheath



**Connector RND (option ZZZY = SNDY ; Y = cable length)**

**TECHNICAL DATA PREWIRED CABLE**

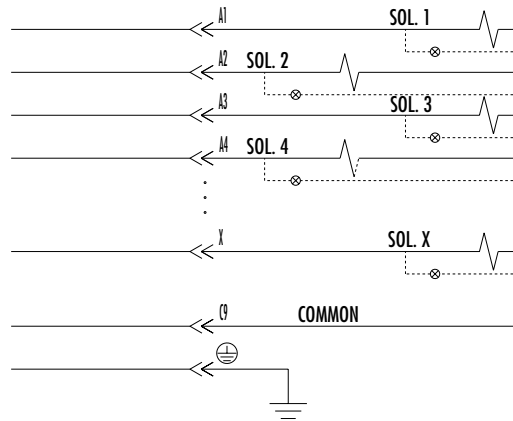
- Type : LIY(C)Y -0.50 mm<sup>2</sup>
- Dia. ca. 10.8 mm (12 core); 12.9 mm (18 core); 16.0 mm (32 core)
- Insulation resistance : 20 MΩ for 1000 meter
- Temp. range -5° to +80°C
- Rated voltage : 500 V~
- PVC core insulation and sheath
- Tinned copper wire braid



**Connector HDT (option ZZZY = HDTY ; Y = cable length)**

**TECHNICAL DATA PREWIRED CABLE**

- Type : LIY(C)Y -0.75 mm<sup>2</sup>
- Dia. ca. 12.0 mm (12 core); 13.5 mm (18 core); 18.0 mm (32 core)
- Insulation resistance : 20 MΩ for 1000 meter
- Temp. range -5° to +80°C
- Rated voltage : 500 V~
- PVC core insulation and sheath
- Tinned copper wire braid





## PRECAUTIONS CONCERNING THE APPLICATION, INSTALLATION AND SERVICE OF MAC VALVES

The precautions below are important to be read and understood before designing into a system any MAC valve, and before installing or servicing any MAC valve. Improper use, installation or servicing of any MAC valve in some systems could create a hazard to personnel or equipment.

### APPLICATION PRECAUTIONS :

#### INDUSTRIAL USE -

MAC valves are intended for use in industrial pneumatic and/or vacuum systems. They are not intended for consumer use or service. They are general purpose industrial valves with literally thousands of different applications in industrial systems. These products are not inherently dangerous, but they are only a component of an overall system. The system in which they are used must provide adequate safeguards to prevent injury or damage in the event failure occurs, whether it be failure of switches, regulators, cylinders, valves or any other component.

#### POWER PRESSES -

MAC valves are not designed nor intended to be used to operate and/or control the operation of clutch and/or brake systems on power presses. There are special products on the market for such use.

#### 2-POSITION VALVES -

Some MAC valves are 2-position, 4-way valves. When air is supplied to the inlet port(s) of these valves, there will always be a flow path from the inlet to one of the outlets regardless of which of the two positions the valve is situated. Therefore, if pressurized air retained in the system would present a hazard in the application or servicing of the valve or system, a separate method in the system must be provided to remove the trapped air.

#### 3- POSITION VALVES-

Some MAC valves are 3-position, 4-way valves. These valves are either double solenoid or double remote air operated.

If either of the two operators is in control, air supplied to the inlet port(s) will pass through the valve to one of the outlets as on 2-position, 4-way valves. However, if neither operator is in control, the valve moves to a center position. Listed below are the various center position functions :

#### A. CLOSED CENTER-

With this type valve, when in the center position all ports are blocked (inlets and exhausts) meaning the air at both outlet ports is trapped. If trapping the air in both outlet ports would present a hazard in the application or servicing, a separate method in the system must be provided to remove the trapped air or this type valve should not be used.

#### B. OPEN CENTER-

With this type valve, when in the center position, the inlet port(s) is blocked and the two outlet ports are open to the exhaust port(s) of the valve. If having no air in either outlet port would present a hazard in the application or servicing, this type valve should not be used.

#### C. PRESSURE CENTER-

With this type valve, when in the center position, the inlet port(s) is connected to both outlet ports of the valve. If having pressurized air to either or both outlet ports would present a hazard in the application or servicing of the valve or system, a separate method in the system must be provided to remove the retained air.

#### OPERATING SPECIFICATIONS -

MAC valves are to be installed only on applications that meet all operating specifications described in the MAC catalog for the valve.

#### MANUAL OPERATORS-

Most MAC valves can be ordered with manual operators. Manual operators when depressed, are designed to shift the valve to the same position as would the corresponding solenoid or remote air pilot operator if it were activated. Care must be taken to order a type, if any, that will be safe for the physical location of the manual operator in the system. Accidental activation of a manual operator could create a dangerous situation. If intentional or accidental operation of a valve by a manual operator could create a dangerous situation then the "no operator" option should be used.

#### REMOTE AIR OPERATED VALVES

Pilot valves supplying signal pressure to remote air operated valves should be 3-way valves with adequate supply and exhaust capacity to provide positive pressurizing and exhausting of the pilot supply line. Pilot lines should be open to exhaust when valves are deenergized.

### INSTALLATION AND SERVICE PRECAUTIONS :

- Do not install or service MAC valves without first making sure both the air and electrical power to the machine are off and that all air has been completely bled from the system.
- MAC valves should only be installed and/or serviced by qualified, knowledgeable personnel who understand how the specific valve is to be pneumatically piped and electrically connected (where applicable). Flow paths through the valve are shown in the catalog and on the valve by use of ANSI or ISO type standard and graphic symbols. Do not install unless these symbols and the valve functions and operations are thoroughly understood.
- Before service, maintenance, repair or cleaning, consult local distributor or factory for Parts & Operation Sheet and information on proper cleaning and lubrication agents. Do not subject MAC valves' parts to any foreign substance including lubricants and cleaning agents not specifically recommended by MAC valves, Inc.
- MAC valves are never to be stepped on while working on a machine. Damage to the valve, or lines to the valve (either air or electrical lines) or accidental activating of a manual operator on the valve could result in a dangerous condition.

### WARNING :

Under no circumstances are Mac valves to be used in any application where failure of the valve to operate as intended could jeopardize the safety of the operator or any other person.

- Do not operate outside of pressure range listed on valve label or outside of designated temperature range.
- Air supply must be clean. Contamination of valve can affect proper operation.
- Before attempting to repair, adjust or clean valve, consult catalog, parts & operation sheet, or factory for proper maintenance procedures, lubrication, and cleaning agents. Never attempt to repair or perform other maintenance with air pressure to valve.
- If airline lubrication is used, consult catalog, parts & operation sheet, or factory for recommended lubricants.

### LIMITATION OF GUARANTEE

This Guarantee is limited to the replacement or rebuilding of any valve which should fail to operate properly. Valves, under the MAC Guarantee, must be returned (with or without bases) transportation prepaid and received at our factory within the Guarantee period. They will be returned to the customer at the expense of MAC Valves, Inc., and will carry the same guarantee as provided under the Flat Rate Rebuild Program.

### DISCLAIMER OF GUARANTEE

No claims for labor, material, time, damage, or transportation are allowable nor will any valve be replaced or rebuilt under this guarantee which has been damaged by the purchaser not in the normal course of its use and maintenance during the warranty period. The guarantee does not apply to loss or damage caused by fire, theft, riot, explosion, labor dispute, act of God, or other causes beyond the control of MAC Valves, Inc. MAC Valves, Inc. shall in no event be liable for remote, special or consequential damages under the MAC Guarantee, nor under any implied warranties, including the implied warranty of merchantability.

The above Guarantee is our manner of extending the engineering and service resources of the MAC Valves, Inc. organization to assure our customer long, and continued satisfaction.