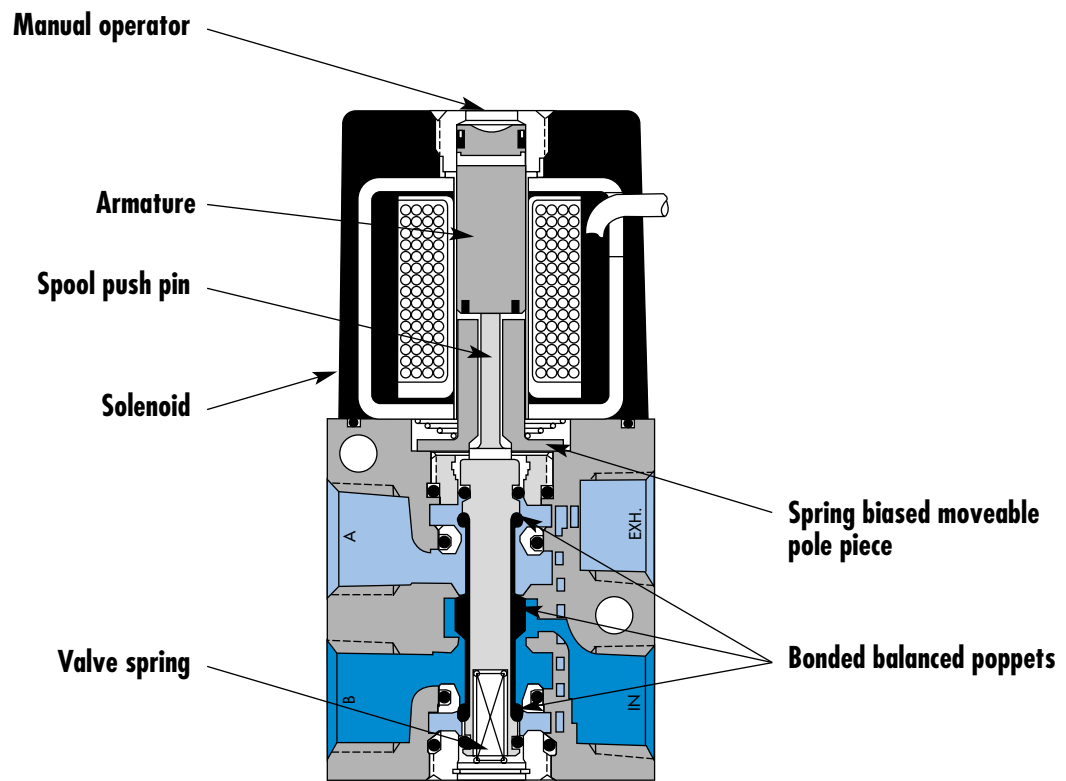


Circuit bar mounting

non plug-in with or without F. C.	non plug-in with Pr. Reg.	non plug-in with Pr. Reg. and F. C.	plug-in	plug-in with side Pr. Reg.	plug-in with sandwich Pr. Reg.	plug-in with F. C.	plug-in with Pr. Reg. and F. C.
plug-in with integral terminal strip	plug-in with integral terminal strip and side Pr. Reg.	plug-in with integral terminal strip and sandwich Pr. Reg.	plug-in with integral terminal strip with F. C.	plug-in with integral terminal strip with Pr. Reg. and F. C.			



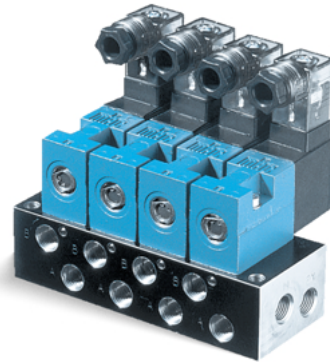
**SERIES FEATURES**

- Patented MACSOLENOID® for fastest possible response times.
- Extremely high cycle rate capability.
- Rated for lubricated or non-lubricated service.
- Various solenoid enclosures and plug-in connectors.
- Low wattage DC solenoids - down to 1.8 watts.

<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	non plug-in with or without F. C.

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

<b>Single operator</b>	<b>Double operator (Minimum DC wattage 5,4W)</b>
	
45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx

SOLENOID OPERATOR ▶

D **XX X- X XX**\*

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120/60, 110/50	A	18" (Flying leads)	1	Non-locking Recessed	KA	Square connector
AB	240/60, 220/50	J	Connector	2	Locking Recessed	KD	Square connector with light
AC	24/60, 24/50					BA	Flying leads
FB	24VDC (1.8 W)						
DA	24VDC (5.4 W)						
DF	24VDC (12.7 W)						

HOW TO ORDER CIRCUIT BAR\*\* (WITHOUT FLOW CONTROLS)

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21	EBM45A-001A-xx	EBM45A-002A-xx
<b># 10-32 UNF</b>	21	EBM45A-001B-xx	EBM45A-002B-xx

HOW TO ORDER CIRCUIT BAR\*\* (WITH FLOW CONTROLS)

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	26	EBM45A-015A-xx	EBM45A-016A-xx
<b># 10-32 UNF</b>	26	EBM45A-015B-xx	EBM45A-016B-xx
<b>1/8" NPTF</b>	40	EBM45A-025A-xx	EBM45A-026A-xx
<b># 10-32 UNF</b>	40	EBM45A-025B-xx	EBM45A-026B-xx

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).

Consult "Precautions" before use, installation or service of MAC Valves.

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

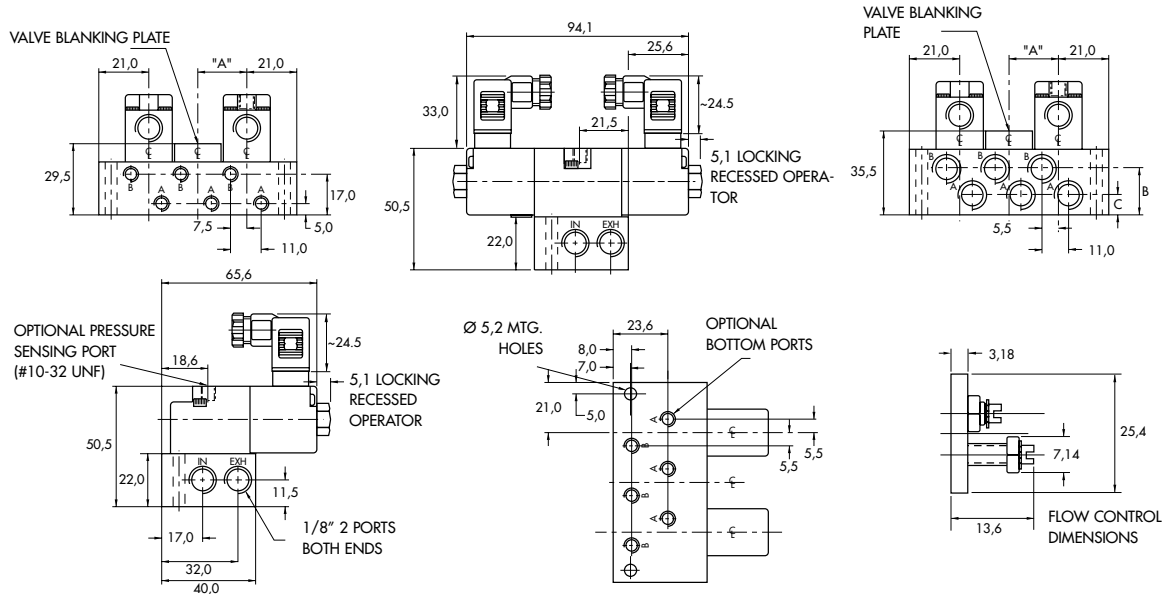
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**



SPACING SIZE	A	PORT SIZE	B	C
STANDARD	21.0			
PER JB	26.0	1/8"	20.0	8.0
GAGES	40.0	M5	22.0	6.0

Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	non plug-in with Pr. Reg.

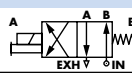
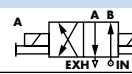
### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

	Single operator	Double operator (Minimum DC wattage 5,4W)
		
<b>Valve w/o gage port</b>	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
<b>Valve w/ gage port</b>	45A-M00-Dxxx-xxx	45A-P00-Dxxx-xxx

SOLENOID OPERATOR >

D **XX X- X XX**

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120/60, 110/50	A	18" (Flying leads)	1	Non-locking Recessed	KA	Square connector
AB	240/60, 220/50	J	Connector	2	Locking Recessed	KD	Square connector with light
AC	24/60, 24/50					BA	Flying leads
FB	24VDC (1.8 W)						
DA	24VDC (5.4 W)						
DF	24VDC (12.7 W)						

HOW TO ORDER CIRCUIT BAR WITH PRESSURE REGULATORS (ORDER REGULATORS SEPARATELY) \*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21 (w/o gage)	EBM45A-003A-xx	EBM45A-004A-xx
<b># 10-32 UNF</b>	21 (w/o gage)	EBM45A-003B-xx	EBM45A-004B-xx
<b>1/8" NPTF</b>	40 (w/ gage)	EBM45A-023A-xx	EBM45A-024A-xx
<b># 10-32 UNF</b>	40 (w/ gage)	EBM45A-023B-xx	EBM45A-024B-xx

Number of stations (03=3 stations)

\*\* Other options available Consult factory.

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
gage not supplied w/circuit bar.

Pressure regulators :

35A-00M (Adjusting knob)

35A-00L (Slotted stem)

35A-00U (Locking stem)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

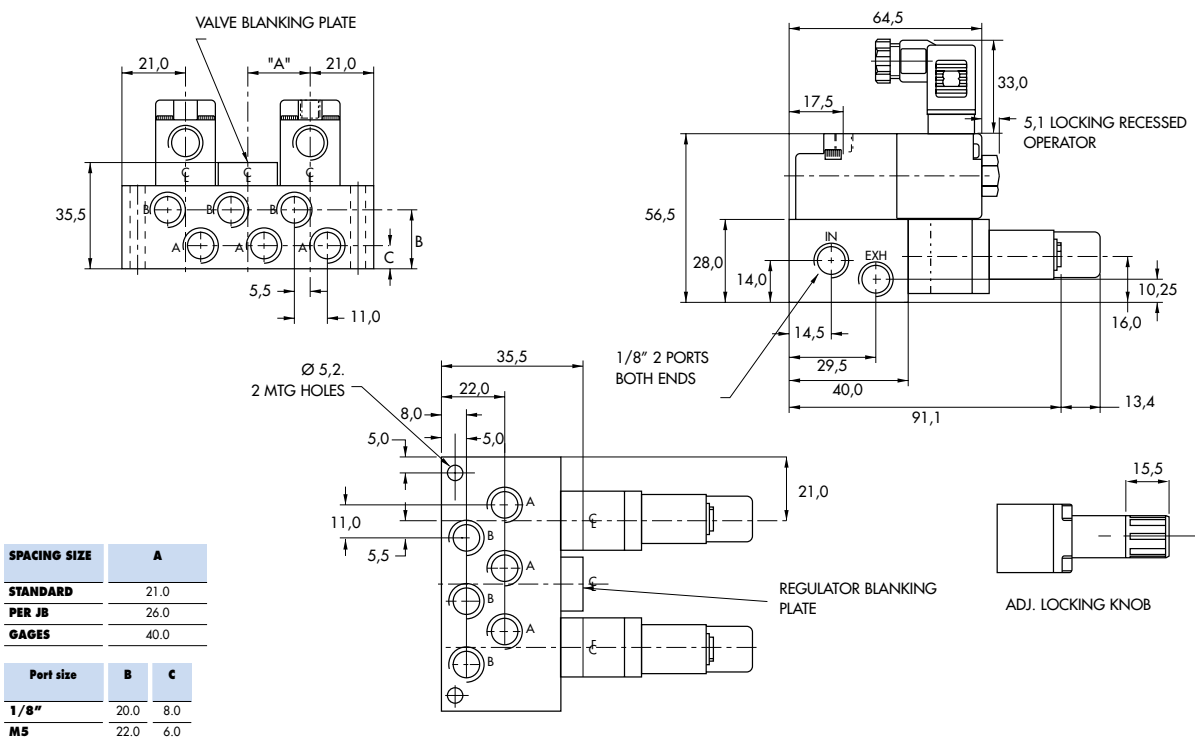
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

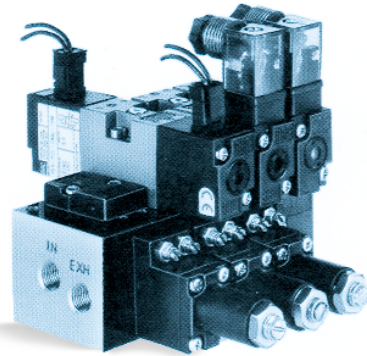
**DIMENSIONS**



<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	non plug-in with Pr. Reg. and F. C.

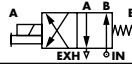

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

	Single operator	Double operator (Minimum DC wattage 5,4W)
		
<b>Valve w/o gage port</b>	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
<b>Valve w/ gage port</b>	45A-M00-Dxxx-xxx	45A-P00-Dxxx-xxx

SOLENOID OPERATOR >

D **XX X- X XX**\*

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120/60, 110/50	A	18" (Flying leads)	1	Non-locking Recessed	KA	Square connector
AB	240/60, 220/50	J	Connector	2	Locking Recessed	KD	Square connector with light
AC	24/60, 24/50					BA	Flying leads
FB	24VDC (1.8 W)						
DA	24VDC (5.4 W)						
DF	24VDC (12.7 W)						

HOW TO ORDER CIRCUIT BAR WITH PRESSURE REGULATORS AND FLOW CONTROLS (ORDER REGULATOR AND FLOW CONTROL SEPARATELY) \*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21 (w/o gage)	EBM45A-007A-xx	EBM45A-008A-xx
<b># 10-32 UNF</b>	21 (w/o gage)	EBM45A-007B-xx	EBM45A-008B-xx
<b>1/8" NPTF</b>	40 (w/ gage)	EBM45A-027A-xx	EBM45A-028A-xx
<b># 10-32 UNF</b>	40 (w/ gage)	EBM45A-027B-xx	EBM45A-028B-xx

Number of stations (03=3 stations)

\*\* Other options available Consult factory.

Note : clic for valves, regulators and flow controls mounted to circuit bar at the factory (add - 9 to the model number).  
gage not supplied w/circuit bar

Pressure regulators and flow controls:

45A-001 (Slotted stem)

45A-002 (Adjusting knob)

45A-003 (Locking stem)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

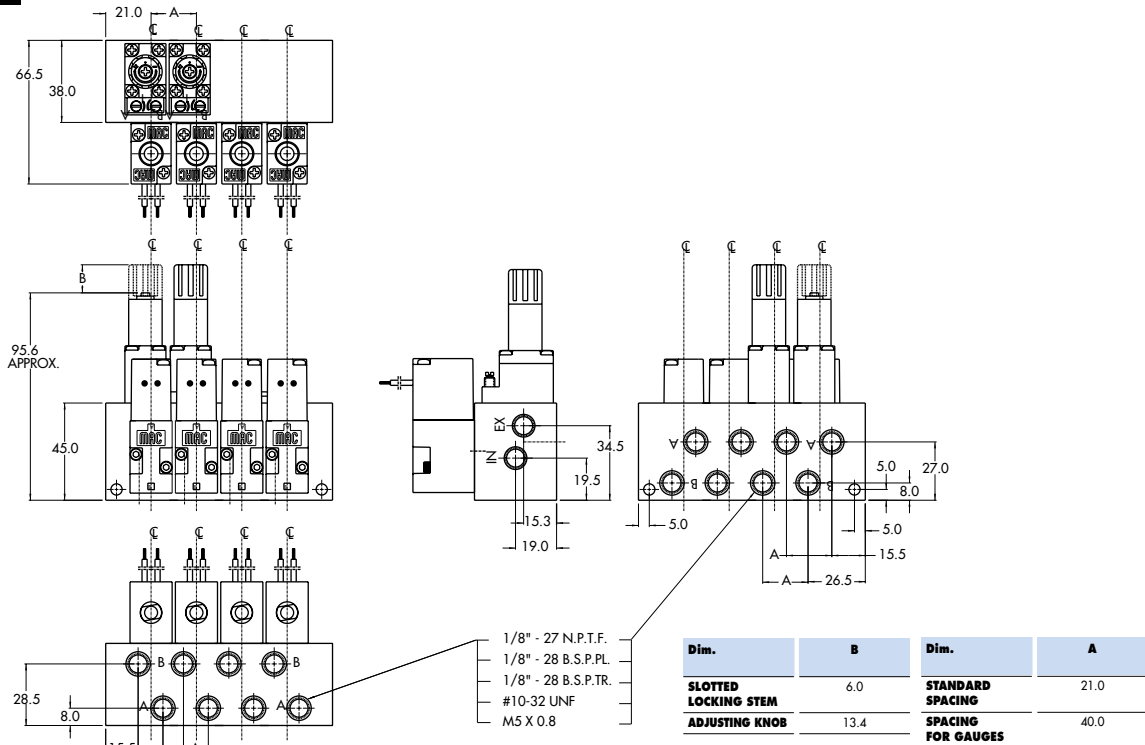
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**



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

Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator	Double operator (Minimum DC wattage 5,4W)
 45A-L00-DxxJ-xFM	 45A-N00-DxxJ-xFM

SOLENOID OPERATOR >

D **XX** J- X FM

XX Voltage	X Manual operator
AA 120/60, 110/50	1 Non-locking Recessed
AB 240/60, 220/50	2 Locking Recessed
AC 24/60, 24/50	
FB 24VDC (1.8 W)	
DA 24VDC (5.4 W)	
DF 24VDC (12.7 W)	

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

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21	ECD45A-001A-A0-xx	ECD45A-002A-A0-xx
<b># 10-32 UNF</b>	21	ECD45A-001B-A0-xx	ECD45A-002B-A0-xx
<b>1/8" NPTF</b>	30	ECD45A-031A-C0-xx	ECD45A-032A-C0-xx
<b># 10-32 UNF</b>	30	ECD45A-031B-C0-xx	ECD45A-032B-C0-xx

Number of stations (03=3 stations)

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

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

### OPTIONS

ECD45A-002A-A0-xx

L - clic for double operator valve (replace by 8) (Bottom cylinder ports).



**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

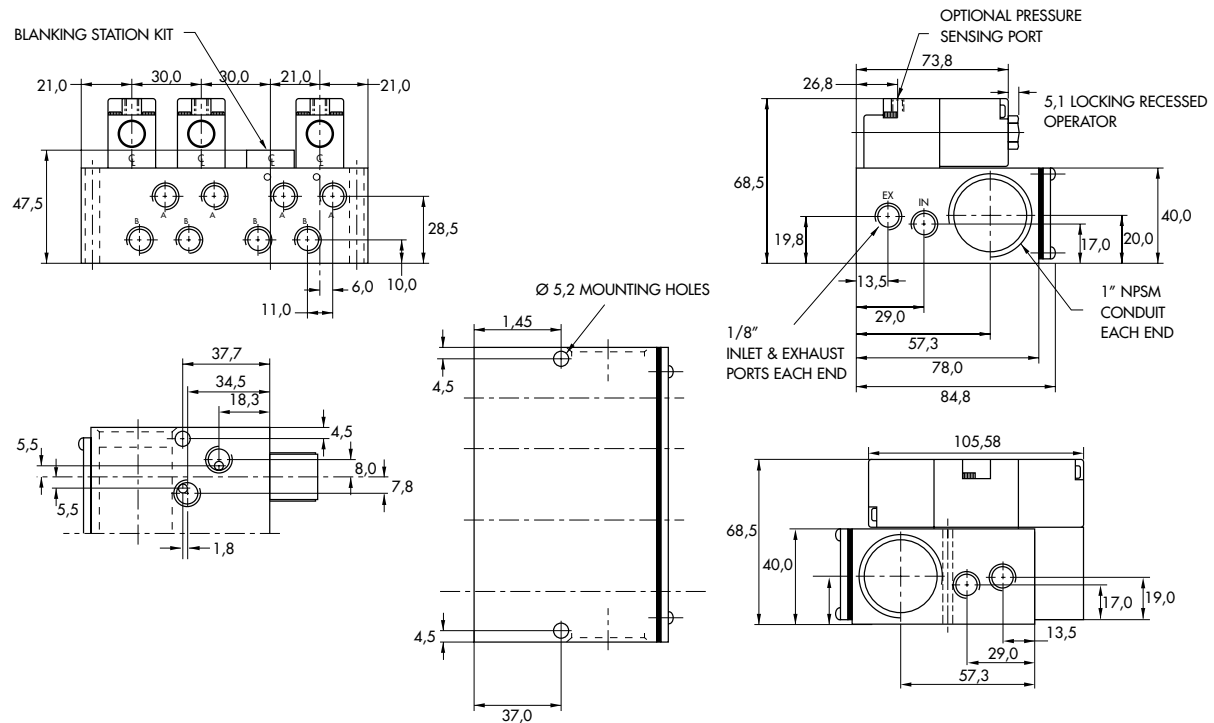
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

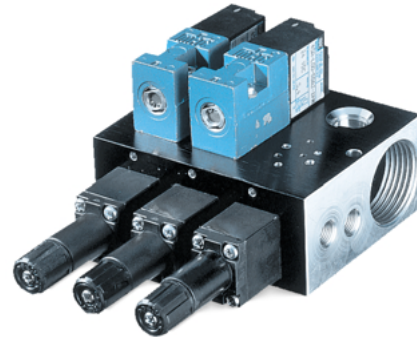
**DIMENSIONS**



Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with side Pr. Reg.

### OPERATIONAL BENEFITS

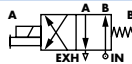
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR "PLUG-IN" CIRCUIT BAR

#### Single operator



45A-L00-DxxJ-xFM	Valve w/o gage port
45A-M00-DxxJ-xFM	Valve w/ gage port

### SOLENOID OPERATOR >

D **XX** J- **X** FM\*

<b>XX Voltage</b>	<b>X Manual operator</b>
<b>AA</b> 120/60, 110/50	<b>1</b> Non-locking Recessed
<b>AB</b> 240/60, 220/50	<b>2</b> Locking Recessed
<b>AC</b> 24/60, 24/50	
<b>FB</b> 24VDC (1.8 W)	
<b>DA</b> 24VDC (5.4 W)	
<b>DF</b> 24VDC (12.7 W)	

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

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" NPTF</b>	21	ECD45A-004A-A0-xx
<b># 10-32 UNF</b>	21	ECD45A-004B-A0-xx
<b>1/8" NPTF</b>	30	ECD45A-034A-C0-xx
<b># 10-32 UNF</b>	30	ECD45A-034B-C0-xx
<b>1/8" NPTF</b>	40	ECD45A-024A-A0-xx
<b># 10-32 UNF</b>	40	ECD45A-024B-A0-xx

Number of stations (03=3 stations)

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
for multi-pin connector (9, 15 or 25).  
minimum spacing for terminal strips is 30 mm.  
use 40 mm spacing for gages.

\*\* Pressure Regulators :

- 35A-00M (Adjusting knob)
- 35A-00L (Slotted stem)
- 35A-00U (Locking stem)

\*\* A0 = without light

- AA = with light (120V)
- AB = with light (240V)
- AD = with light (24V)
- C0 = terminal strip
- CA = terminal w/light (120V)
- CB = terminal w/light (240V)
- CD = terminal w/light (24V)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

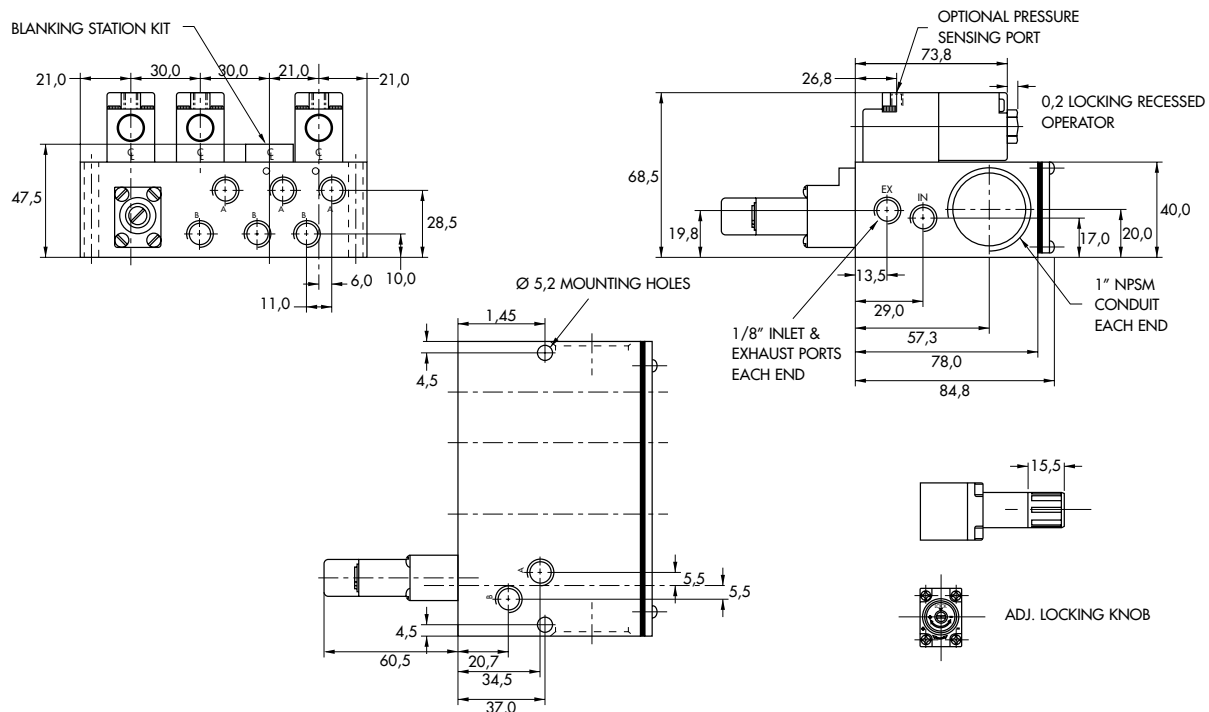
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

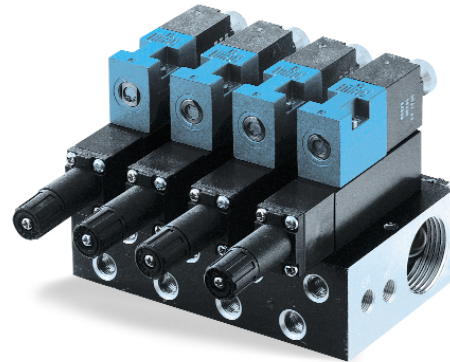
**DIMENSIONS**



<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with sandwich Pr. Reg.

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator	
45A-L00-DxxJ-xFM	Valve w/o gage port
45A-M00-DxxJ-xFM	Valve w/ gage port

### SOLENOID OPERATOR

D **XX** J- **X** FM\*

XX	Voltage	X	Manual operator
AA	120/60, 110/50	1	Non-locking Recessed
AB	240/60, 220/50	2	Locking Recessed
AC	24/60, 24/50		
FB	24VDC (1.8 W)		
DA	24VDC (5.4 W)		
DF	24VDC (12.7 W)		

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

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21	ECD45A-001A-A0-xx	ECD45A-002A-A0-xx
<b># 10-32 UNF</b>	21	ECD45A-001B-A0-xx	ECD45A-002B-A0-xx
<b>1/8" NPTF</b>	30	ECD45A-031A-C0-xx	ECD45A-032A-C0-xx
<b># 10-32 UNF</b>	30	ECD45A-031B-C0-xx	ECD45A-032B-C0-xx
<b>1/8" NPTF</b>	40	ECD45A-021A-A0-xx	ECD45A-022A-A0-xx
<b># 10-32 UNF</b>	40	ECD45A-021B-A0-xx	ECD45A-022B-A0-xx

Number of stations (03=3 stations)

Note : clic for valves and regulators mounted to circuit bar at the factory, add - 9 to the model number.  
for multi-pin connector (9, 15 or 25).  
minimum spacing for terminal strips is 30 mm.  
use 40 mm spacing for gages.

\*\* Pressure Regulators :

- PR45A-AA0A (Adjusting knob)
- PR45A-AB0A (Slotted stem)
- PR45A-AC0A (Locking stem)

\*\* A0 = without light

- AA = with light (120V)
- AB = with light (240V)
- AD = with light (24V)
- C0 = terminal strip
- CA = terminal w/light (120V)
- CB = terminal w/light (240V)
- CD = terminal w/light (24V)

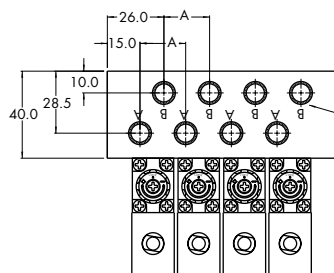
**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
  - Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
  - Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

- Options :
- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

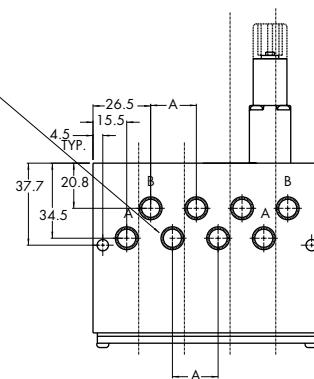
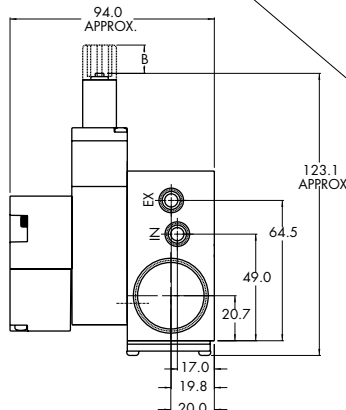
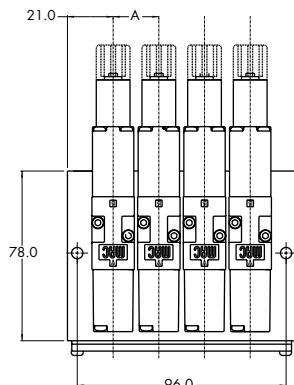
**DIMENSIONS**



- 1/8" - 27 N.P.T.F.
- 1/8" - 28 B.S.P.PL.
- 1/8" - 28 B.S.P.TR.
- #10-32
- M5 0.8

Dim.	A	Dim.	B
<b>STANDARD SPACING</b>	21.0	<b>SLOTTED LOCKING STEM</b>	6.0
<b>OPTIONAL SPACING</b>	30.0	<b>ADJUSTING KNOB</b>	13.4
<b>SPACING FOR GAUGES</b>	40.0		

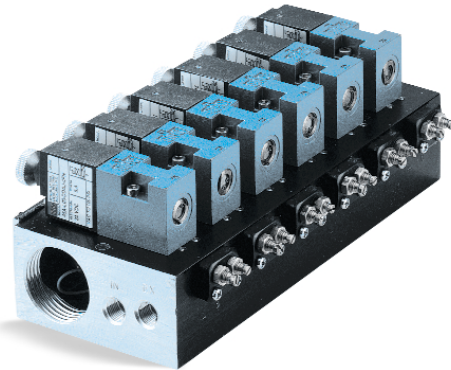
Note: Bottom & side cylinder ports not available on the same station



Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with F. C.

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Port size (see base)	Single operator
Valve less base	 45A-L00-DxxJ-xFM

### SOLENOID OPERATOR >

D **XX** J- **X** FM\*

XX Voltage	X Manual operator
AA 120/60, 110/50	1 Non-locking Recessed
AB 240/60, 220/50	2 Locking Recessed
AC 24/60, 24/50	
FB 24VDC (1.8 W)	
DA 24VDC (5.4 W)	
DF 24VDC (12.7 W)	

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

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	21	-----	ECD45A-006A-A0-xx
<b># 10-32 UNF</b>	21	-----	ECD45A-006B-A0-xx
<b>1/8" NPTF</b>	30	ECD45A-035A-A0-xx	-----
<b># 10-32 UNF</b>	30	ECD45A-035B-A0-xx	-----

Number of stations (03=3 stations)

Note : clic for valves mounted on base at the factory (add - 9 to the model number).  
for multi-pin connector (9, 15 or 25).  
minimum spacing for terminal strips is 30 mm.

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

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

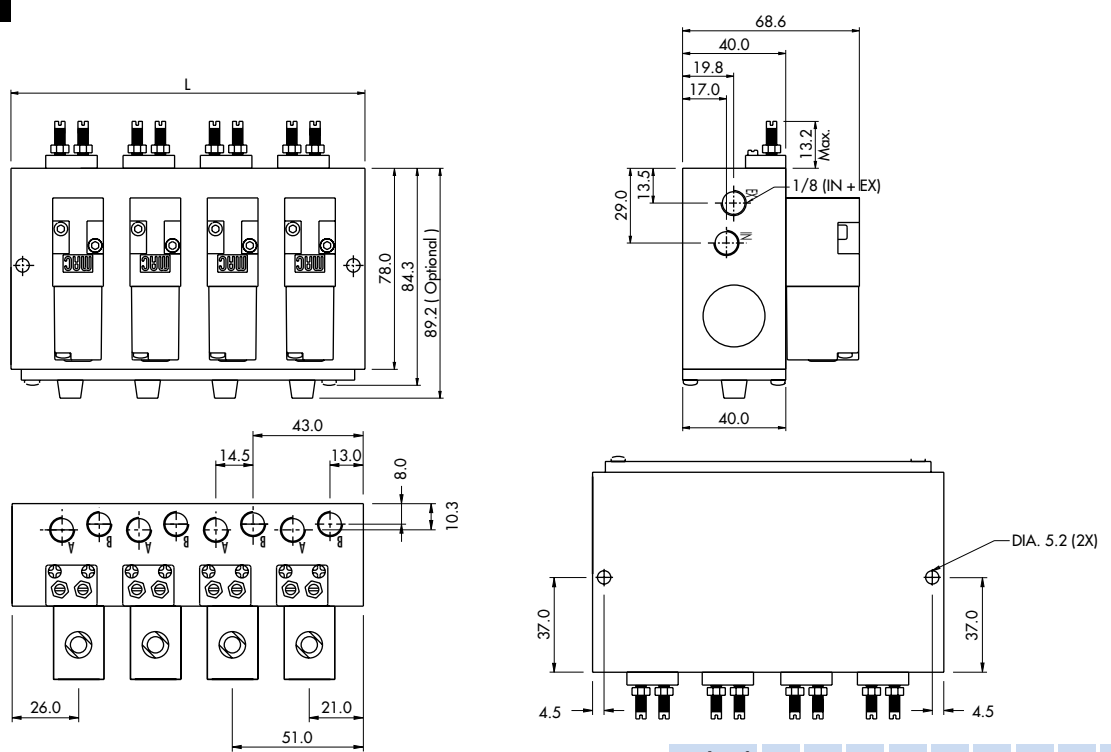
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

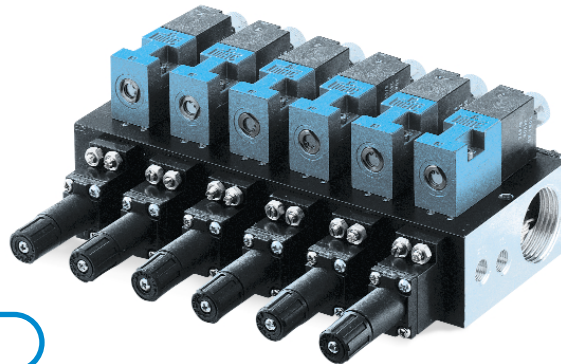
**DIMENSIONS**



Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with Pr. Reg. and F. C.

### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Port size (see base)	Single operator
Valve less base (w/o gage port)	45A-L00-DxxJ-xFM
Valve less base (w/ gage port)	45A-M00-DxxJ-xFM



### SOLENOID OPERATOR >

**D xx J- x FM\***

XX Voltage	X Manual operator
AA 120/60, 110/50	1 Non-locking Recessed
AB 240/60, 220/50	2 Locking Recessed
AC 24/60, 24/50	
FB 24VDC (1.8 W)	
DA 24VDC (5.4 W)	
DF 24VDC (12.7 W)	

HOW TO ORDER "PLUG-IN" CIRCUIT BAR WITH REGULATORS AND FLOW CONTROLS (TO BE ORDERED SEPARATELY) \*\*

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" NPTF</b>	21	ECD45A-007A-A0-xx
<b># 10-32 UNF</b>	21	ECD45A-007B-A0-xx
<b>1/8" NPTF</b>	30	ECD45A-037A-C0-xx
<b># 10-32 UNF</b>	30	ECD45A-037B-C0-xx

Number of stations (03=3 stations)

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
for multi-pin connector (9, 15 or 25).  
minimum spacing for terminal strips is 30 mm.

Pressure regulators and flow controls:

- 45A-001 (Slotted stem)
- 45A-002 (Adjusting knob)
- 45A-003 (Locking stem)

\*\* A0 = without light

AA = with light (120V)

AB = with light (240V)

AD = with light (24V)

\*\* C0 = terminal strip

CA = terminal w/light (120V)

CB = terminal w/light (240V)

CD = terminal w/light (24V)



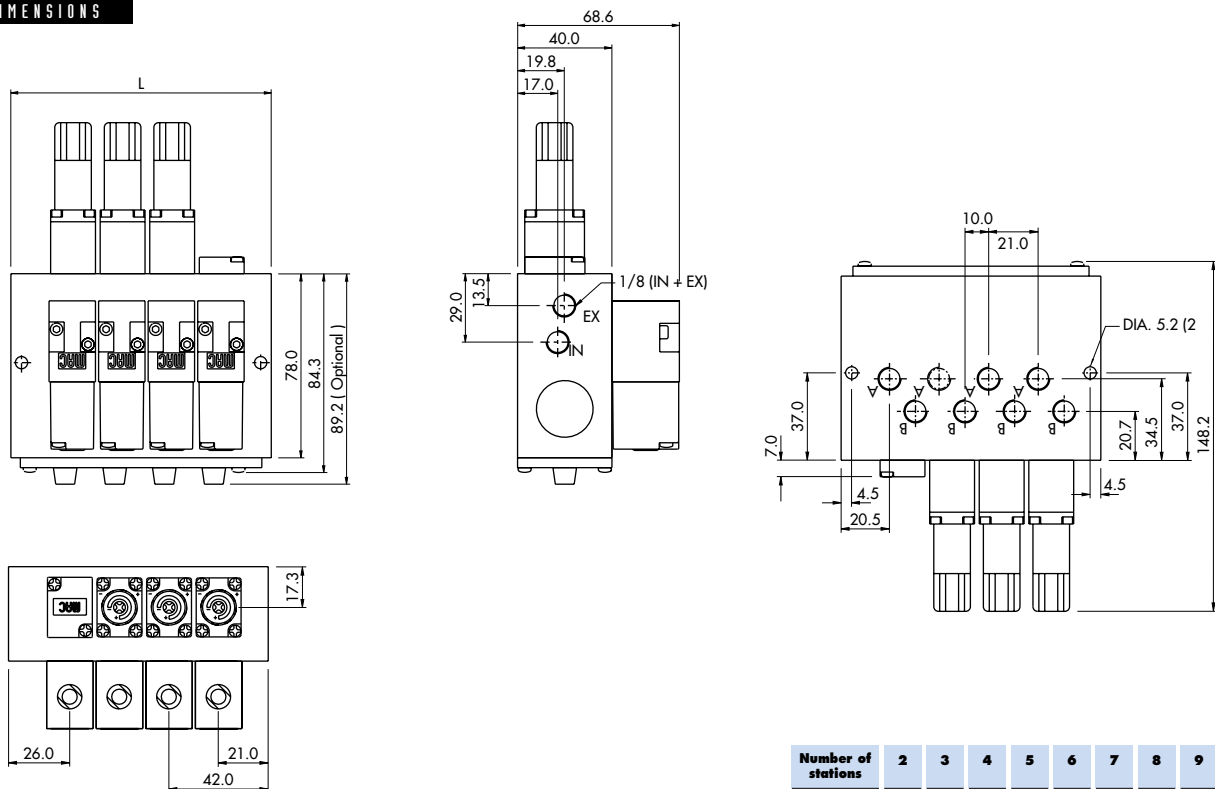
**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

Spare parts :  
 • Solenoid operator (power ≥ 5.4 W) : DXJ-XFM, including mounting screws 35013.  
 • Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.  
 • Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :  
 • BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

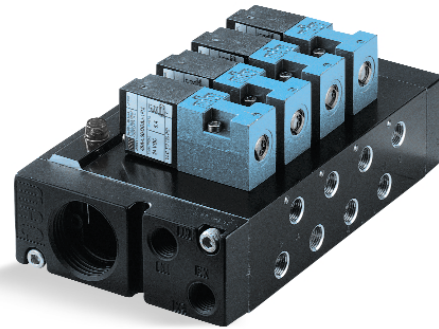
**DIMENSIONS**



<b>Function</b>	<b>Port size</b>	<b>Flow [Max]</b>	<b>Circuit bar mounting</b>	<b>S</b>
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with integral terminal strip	

**OPERATIONAL BENEFITS**

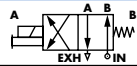
- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- The patented solenoid develops high shifting forces.
- Powerful return spring.
- Manual operator standard on all valves.
- Burn-out proof solenoid on AC service.



**HOW TO ORDER**

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

**Single operator**



45A-L00-DxxJ-xFM

Valve less base

**SOLENOID OPERATOR**

D **XX** J- **X** FM

<b>XX</b>	<b>Voltage</b>
AA	120/60, 110/50
AB	240/60, 220/50
AC	24/60, 24/50
FB	24VDC (1.8 W)
DA	24VDC (5.4 W)
DF	24VDC (12.7 W)

<b>X</b>	<b>Manual operator</b>
1	Non-locking Recessed
2	Locking Recessed

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

<b>Port size</b>	<b>Spacing mm</b>	<b>Side cylinder ports</b>	<b>Bottom cylinder ports</b>
<b>1/8" NPTF</b>	26	ECE45A-011A-C0-xx	ECE45A-012A-C0-xx
<b># 10-32 UNF</b>	26	ECE45A-011B-C0-xx	ECE45A-012B-C0-xx

Number of stations (03=3 stations)

End plate kit required : M-45017

Note : clic for valves mounted on circuit bar at the factory (add - 9 to the model number).

\*\* C0 = terminal strip

CA = terminal strip w/light (120V)

CB = terminal strip w/light (240V)

CD = terminal strip w/light (24V)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

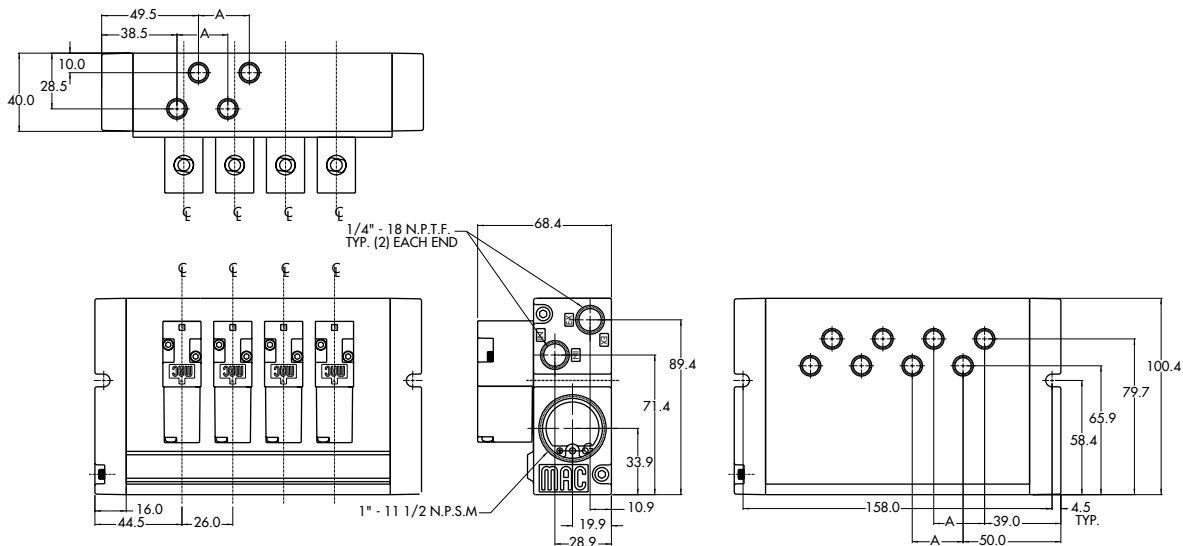
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**

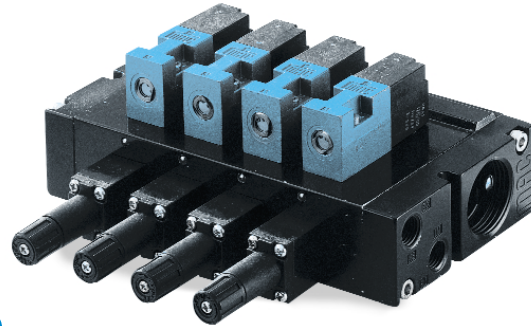


Note: Bottom & side cylinder ports not available on the same station

Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with integral terminal strip and side Pr. Reg.

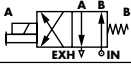
### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR "PLUG-IN" CIRCUIT BAR

Single operator	
	
45A-L00-DxxJ-xFM	Valve less base w/o gage port
45A-M00-DxxJ-xFM	Valve less base w/ gage port

SOLENOID OPERATOR >

D **XX** J- **X** FM

<b>XX</b> Voltage	<b>X</b> Manual operator
<b>AA</b> 120/60, 110/50	<b>1</b> Non-locking Recessed
<b>AB</b> 240/60, 220/50	<b>2</b> Locking Recessed
<b>AC</b> 24/60, 24/50	
<b>FB</b> 24VDC (1.8 W)	
<b>DA</b> 24VDC (5.4 W)	
<b>DF</b> 24VDC (12.7 W)	

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

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" NPTF</b>	26	ECE45A-014A-C0-xx
<b># 10-32 UNF</b>	26	ECE45A-014B-C0-xx
<b>1/8" NPTF</b>	40	ECE45A-024A-C0-xx
<b># 10-32 UNF</b>	40	ECE45A-024B-C0-xx

Number of stations (03=3 stations)

End plate kit required : M-45017

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
Use 40 mm spacing for valves w/ gage port.

\*\* Pressure Regulators :

- 35A-00M (Adjusting knob)
- 35A-00L (Slotted stem)
- 35A-00U (Locking stem)

\*\* C0 = terminal strip

- CA = terminal strip w/light (120V)
- CB = terminal strip w/light (240V)
- CD = terminal strip w/light (24V)

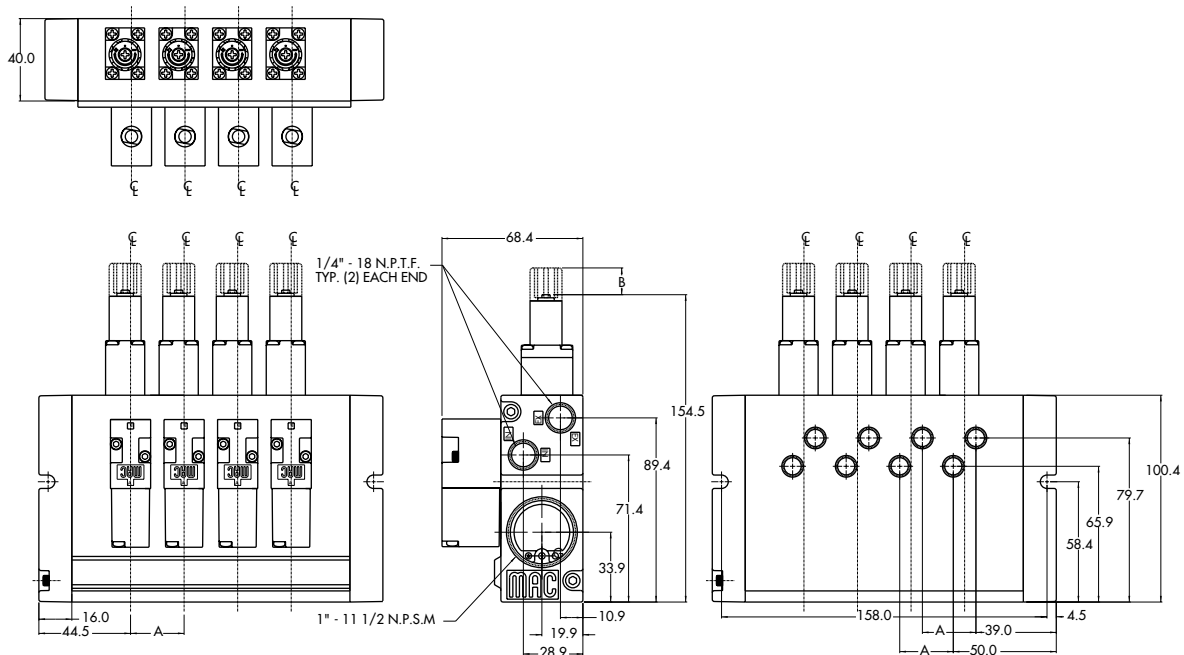
**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases		
<b>Pressure range :</b>	Vacuum to 120 PSI		
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
<b>Filtration :</b>	40 µ		
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)		
<b>Orifice :</b>	2 mm		
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>		
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated		
<b>Voltage range :</b>	-15% to +10% of nominal voltage		
<b>Protection :</b>	Nema 4		
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W		
<b>Response times :</b>	24 VDC (5.4W)	Energize : 6 ms	De-energize : 2 ms
	120 VAC	Energize : 3-8 ms	De-energize : 2-7 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
  - Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
  - Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

- Options :
- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**

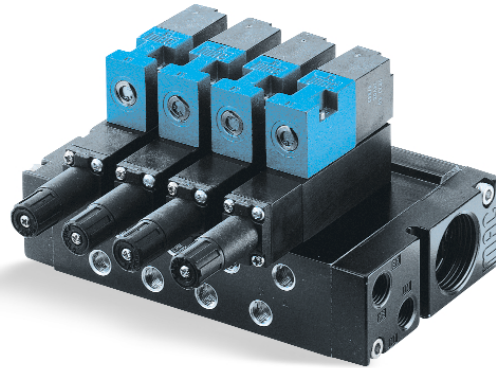


Dim.	B	Dim.	A
<b>SLOTTED LOCKING STEM</b>	6.0	<b>STANDARD SPACING</b>	26.0
<b>ADJUSTING KNOB</b>	13.4	<b>SPACING FOR GAUGES</b>	40.0

Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with integral terminal strip and sandwich Pr. Reg.

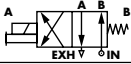
### OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



### HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator	
	
45A-L00-DxxJ-xFM	Valve w/o gage port
45A-M00-DxxJ-xFM	Valve w/ gage port

### SOLENOID OPERATOR >

D **XX** J- **X** FM \*

XX Voltage	X Manual operator
AA 120/60, 110/50	1 Non-locking Recessed
AB 240/60, 220/50	2 Locking Recessed
AC 24/60, 24/50	
FB 24VDC (1.8 W)	
DA 24VDC (5.4 W)	
DF 24VDC (12.7 W)	

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

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	26	ECE45A-011A-C0-xx	ECE45A-012A-C0-xx
<b># 10-32 UNF</b>	26	ECE45A-011B-C0-xx	ECE45A-012B-C0-xx
<b>1/8" NPTF</b>	40	ECE45A-021A-C0-xx	ECE45A-022A-C0-xx
<b># 10-32 UNF</b>	40	ECE45A-021B-C0-xx	ECE45A-022B-C0-xx

Number of stations (03=3 stations)

End plate kit required : M-45017

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
Use 40 mm spacing for valves w/ gage port.

\*\* Pressure Regulators :

PR45A-AA0A (Adjusting knob)

PR45A-AB0A (Slotted stem)

PR45A-AC0A (Locking stem)

\*\* CO = terminal strip

CA = terminal strip w/light (120V)

CB = terminal strip w/light (240V)

CD = terminal strip w/light (24V)

**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	2 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Protection :</b>	Nema 4
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W
<b>Response times :</b>	24 VDC (5.4W)    Energize : 6 ms    De-energize : 2 ms 120 VAC    Energize : 3-8 ms    De-energize : 2-7 ms

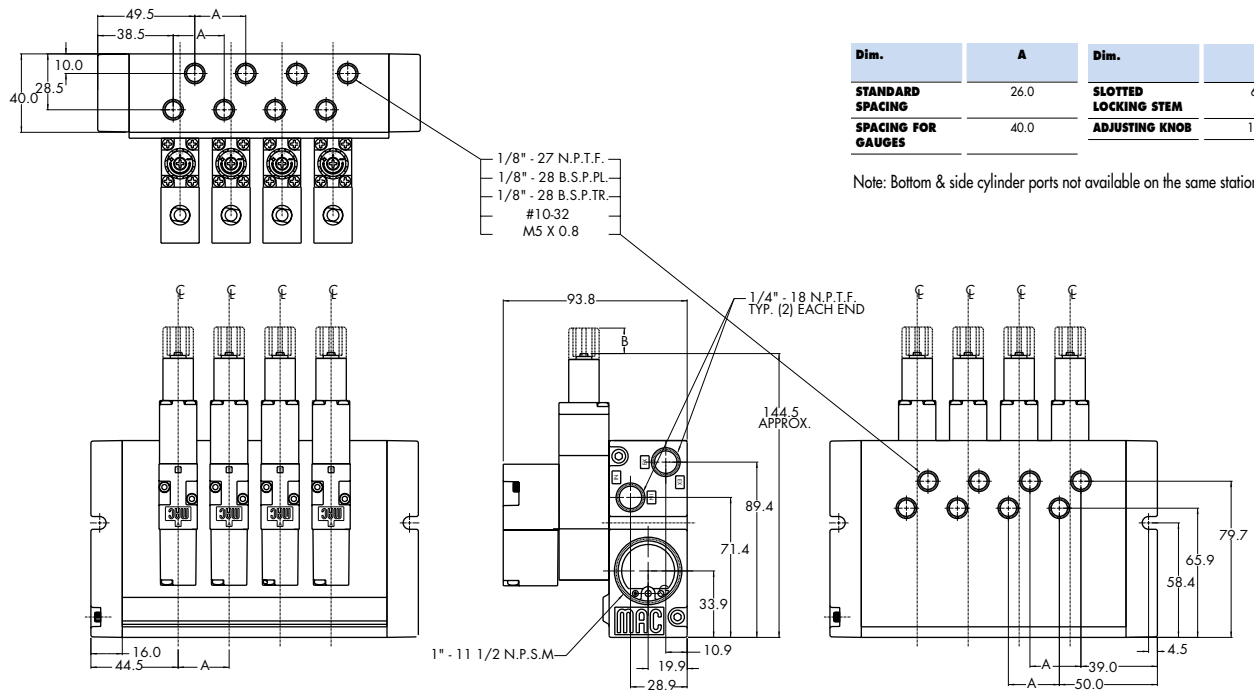
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXJ-XFM, including mounting screws 35013.
- Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
- Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :

- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

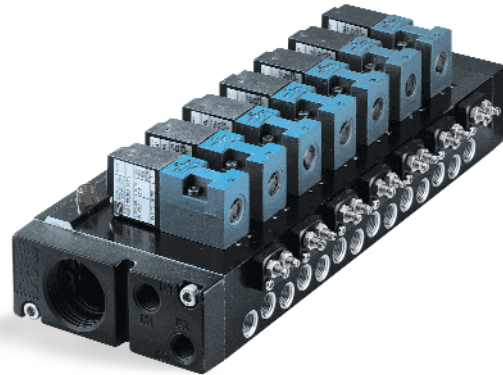
**DIMENSIONS**



Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with integral terminal strip with F. C.

**OPERATIONAL BENEFITS**

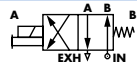
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



**HOW TO ORDER**

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

**Single operator**



45A-L00-DxxJ-xFM

Valve less base

**SOLENOID OPERATOR** >

D **XX** J- **X** FM

<b>XX</b>	<b>Voltage</b>
AA	120/60, 110/50
AB	240/60, 220/50
AC	24/60, 24/50
FB	24VDC (1.8 W)
DA	24VDC (5.4 W)
DF	24VDC (12.7 W)

<b>X</b>	<b>Manual operator</b>
1	Non-locking Recessed
2	Locking Recessed

HOW TO ORDER "PLUG-IN" CIRCUIT BAR WITH FLOW CONTROLS \*\*

Port size	Spacing mm	Side cylinder ports	Bottom cylinder ports
<b>1/8" NPTF</b>	26	-----	ECE45A-016A-C0-xx
<b># 10-32 UNF</b>	26	-----	ECE45A-016B-C0-xx
<b>1/8" NPTF</b>	30	ECE45A-035A-C0-xx	-----
<b># 10-32 UNF</b>	30	ECE45A-035B-C0-xx	-----

Number of stations (03=3 stations)

End plate kit required : M-45017

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).

\*\* CO = terminal strip

CA = terminal strip w/light (120V)

CB = terminal strip w/light (240V)

CD = terminal strip w/light (24V)



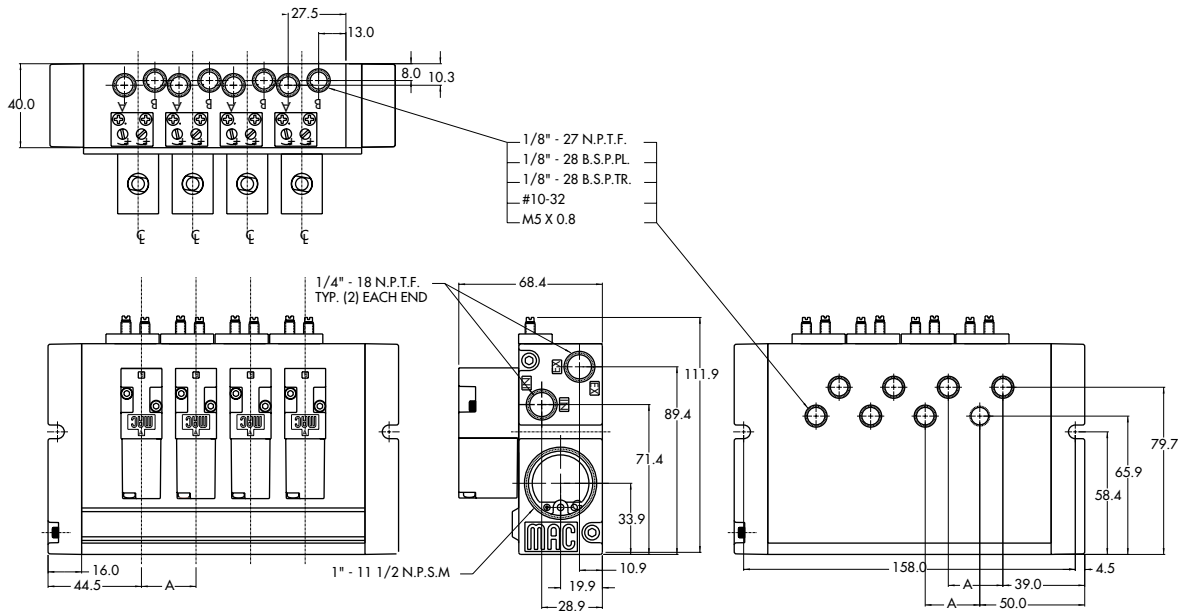
**TECHNICAL  
DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	2 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Protection :</b>	Nema 4
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W
<b>Response times :</b>	24 VDC (5.4W)    Energize : 6 ms    De-energize : 2 ms 120 VAC    Energize : 3-8 ms    De-energize : 2-7 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.
  - Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.
  - Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

- Options :
- BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**



Dim.	A
<b>STANDARD SPACING</b>	26.0
<b>OPTIONAL SPACING</b>	30.0

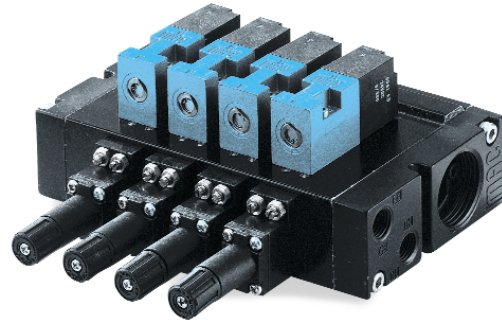
Note: Bottom & side cylinder ports not available on the same station

Consult "Precautions" before use, installation or service of MAC Valves.

Function	Port size	Flow [Max]	Circuit bar mounting
<b>4/2</b>	<b>1/8" NPTF - #10-32 UNF</b>	<b>0.10C<sub>v</sub></b>	plug-in with integral terminal strip with Pr. Reg. and F. C.

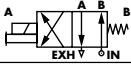
**OPERATIONAL BENEFITS**

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



**HOW TO ORDER**

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator	
	
45A-L00-DxxJ-xFM	Valve less base
45A-M00-DxxJ-xFM	Valve less base w/ gage port

**SOLENOID OPERATOR** >

D **XX** J- **X** FM

<b>XX</b> Voltage	<b>X</b> Manual operator
<b>AA</b> 120/60, 110/50	<b>1</b> Non-locking Recessed
<b>AB</b> 240/60, 220/50	<b>2</b> Locking Recessed
<b>AC</b> 24/60, 24/50	
<b>FB</b> 24VDC (1.8 W)	
<b>DA</b> 24VDC (5.4 W)	
<b>DF</b> 24VDC (12.7 W)	

HOW TO ORDER "PLUG-IN" CIRCUIT BAR WITH PRESSURE AND FLOW CONTROLS (TO BE ORDERED SEPARATELY) \*\*

Port size	Spacing mm	Bottom cylinder ports
<b>1/8" NPTF</b>	26	ECE45A-017A-C0-xx
<b># 10-32 UNF</b>	26	ECE45A-017B-C0-xx
<b>1/8" NPTF</b>	40	ECE45A-027A-C0-xx
<b># 10-32 UNF</b>	40	ECE45A-027B-C0-xx

Number of stations (03=3 stations)

End plate kit required : M-45017

Note : clic for valves and regulators mounted to circuit bar at the factory (add - 9 to the model number).  
Use 40 mm spacing for valves w/ gage port.

\*\* Pressure Regulators :

- 45A-001 (Slotted stem)
- 45A-002 (Adjusting knob)
- 45A-003 (Locking stem)

\*\* C0 = terminal strip

- CA = terminal strip w/light (120V)
- CB = terminal strip w/light (240V)
- CD = terminal strip w/light (24V)

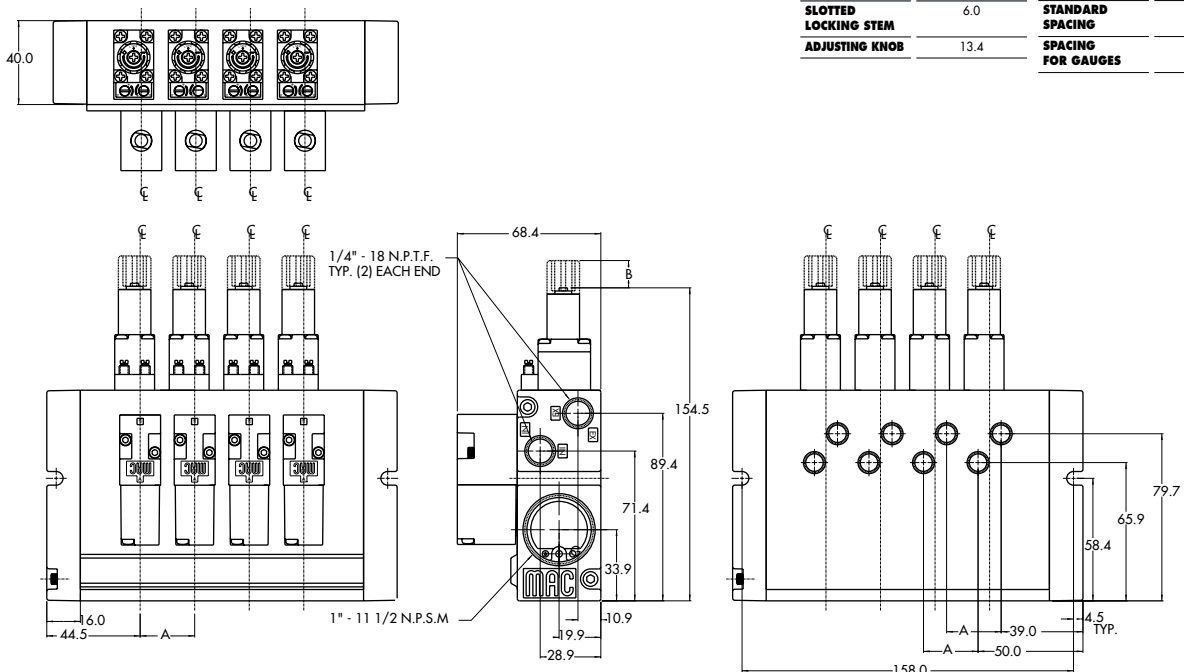
**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Orifice :</b>	2 mm
<b>Flow (at 6 bar, ΔP=1bar) :</b>	1.8 W : 0.08 C <sub>v</sub> , 5.4 W : 0.1 C <sub>v</sub>
<b>Coil :</b>	General purpose class A, continuous duty, encapsulated
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Protection :</b>	Nema 4
<b>Power :</b>	120 VAC/60 = Inrush : 10.9 VA (0.09 AMPS)    Holding : 7.7VA (0.06 AMPS) DC VOLTS = 1.8 W to 12.7 W
<b>Response times :</b>	24 VDC (5.4W)    Energize : 6 ms    De-energize : 2 ms 120 VAC    Energize : 3-8 ms    De-energize : 2-7 ms

Spare parts :  
 • Solenoid operator (power ≥ 5.4 W) : DXXJ-XFM, including mounting screws 35013.  
 • Seal between solenoid and valve body : 16402. • Seal between base and valve : 16453.  
 • Valve mounting screw (x2) : 35020. • Blanking plate valve : M-45010. • Blanking plate regulator : M-35005.

Options :  
 • BSPP threads. • High flow up to 0.14C<sub>v</sub>, according to wattage. • Isolation of inlet and/or exhaust.

**DIMENSIONS**



Dim.	B	Dim.	A
<b>SLOTTED LOCKING STEM</b>	6.0	<b>STANDARD SPACING</b>	26.0
<b>ADJUSTING KNOB</b>	13.4	<b>SPACING FOR GAUGES</b>	40.0



## Section 2

## Options



0 p t i o n s

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

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

**OPTIONS AVAILABLE FOR**

- Solenoid valves 35 & 45 Series

### 1. VOLTAGE

- D XX	X - X XX	VOLTAGE
AD		24/60
AE		200/60
AF		240/50
AG		100/50, 100/60, 110/60
DB		12 VDC (5.4 W)
DC		12 VDC (7.5 W)
DD		24 VDC (7.3 W)
DE		12 VDC (12.7 W) CLSF
DK		110 VDC (5.8 W)
DL		64 VDC (6.0 W)
DM		36 VDC (5.8 W)
DN		6 VDC (6.0 W)
DP		48 VDC (5.8 W)
DU		24 VDC (6.0 W)
EA		12 VDC (6.0 W)
FA		12 VDC (1.8 W)
FE		12 VDC (2.4 W)
FF		24 VDC (2.4 W)

### 2. WIRE LENGTH

- D XX	X - X XX	WIRE LENGTH
B		24"
C		36"
D		48"
E		72"
F		96"

### 3. MANUAL OPERATOR

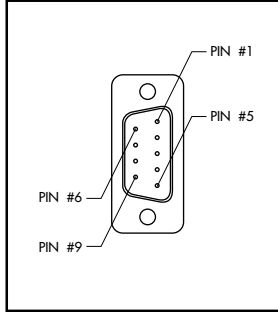
- D XX X - X XX	MANUAL OPERATOR
<b>0</b>	No operator
<b>1</b>	Non-locking recessed
<b>2</b>	Locking recessed
<b>3</b>	Non-locking extended
<b>4</b>	Locking extended

### 4. ELECTRICAL CONNECTION

- D XX X - X XX	ELECTRICAL CONNECTION
<b>BA</b>	Flying leads
<b>BK</b>	BA with protection diode
<b>BL</b>	BA with protection varistor
<b>CA</b>	1/2" NPS conduit
<b>*FN</b>	Plug-in with diode
<b>*FP</b>	Plug-in with M.O.V.
<b>JB</b>	Rectangular connector
<b>JD</b>	Rectangular connector with light
<b>JM</b>	Rectangular connector, male only
<b>KA</b>	Square connector
<b>KB</b>	Square connector with protection diode
<b>KC</b>	Square connector with protection varistor
<b>KD</b>	Square connector with light
<b>KE</b>	Square connector with light and protection diode
<b>KF</b>	Square connector with light and protection varistor
<b>KJ</b>	Square connector (male only)
<b>KK</b>	Square connector with protection diode (male only)
<b>KL</b>	Square connector with protection varistor (male only)
<b>TA</b>	Dual tabs
<b>TB</b>	TA with protection diode
<b>TD</b>	TA with light
<b>TE</b>	TA with light and protection diode
<b>TJ</b>	Dual tabs (male only)
<b>TK</b>	TJ with protection diode
<b>TM</b>	TJ with light
<b>TN</b>	TJ with light and protection diode

\* For use with the ECD and ECE style circuit bars.

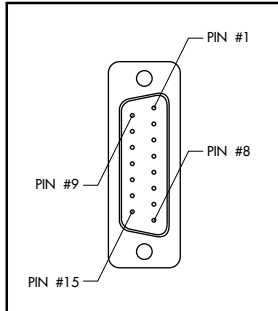
**MOD. S009**



**TECHNICAL DATA**

- Type «SUB\_D»
- Number of contacts : 9
- 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 ≥ 5.0<sup>9</sup> Ω
- Protection class IP40 (DIN 40050)
- Number of solenoids : 7 max.
- Max. 24 V=/5.4 W per solenoid
- 2 common wires

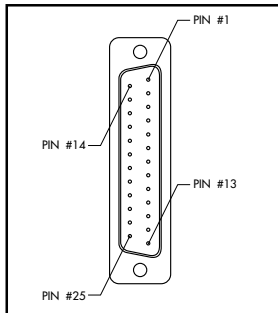
**MOD. S015**



**TECHNICAL DATA**

- Type «SUB\_D»
- Number of contacts : 15
- 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 ≥ 5.0<sup>9</sup> Ω
- Protection class IP40 (DIN 40050)
- Number of solenoids : 12 max.
- Max. 24 V=/5.4 W per solenoid
- 3 common wires

**MOD. S025**



**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 ≥ 5.0<sup>9</sup> Ω
- Protection class IP40 (DIN 40050)
- Number of solenoids : 20 max.
- Max. 24 V=/5.4 W per solenoid
- 5 common wires

Note : Use desired MOD. number after circuit bar part number



Connector termination details

