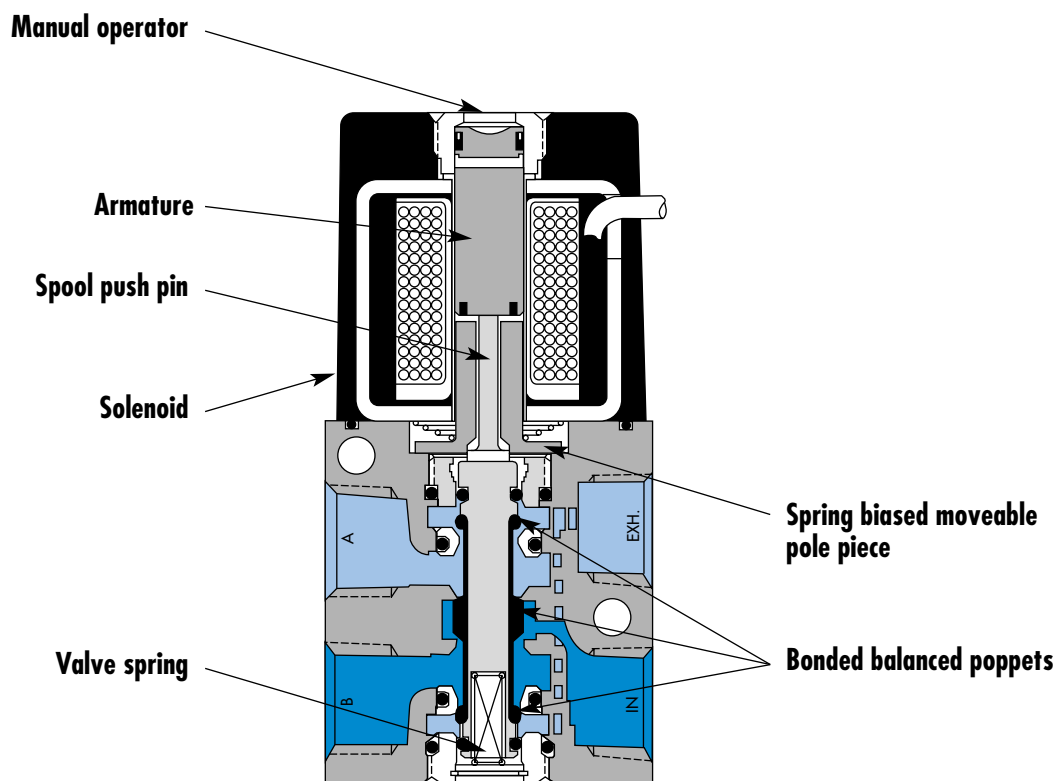


Circuit bar mounting

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.

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

OPERATIONAL BENEFITS

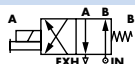
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

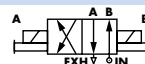
HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

Single operator

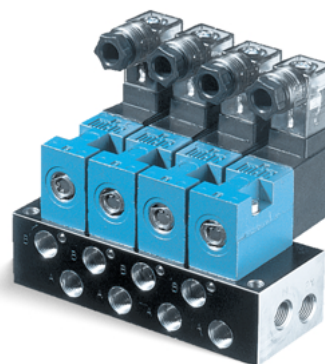


45A-L00-Dxxx-xxx

Double operator (Minimum DC wattage 5,4W)



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
1/8" NPTF	21	EBM45A-001A-xx	EBM45A-002A-xx
# 10-32 UNF	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
1/8" NPTF	26	EBM45A-015A-xx	EBM45A-016A-xx
# 10-32 UNF	26	EBM45A-015B-xx	EBM45A-016B-xx
1/8" NPTF	40	EBM45A-025A-xx	EBM45A-026A-xx
# 10-32 UNF	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**

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

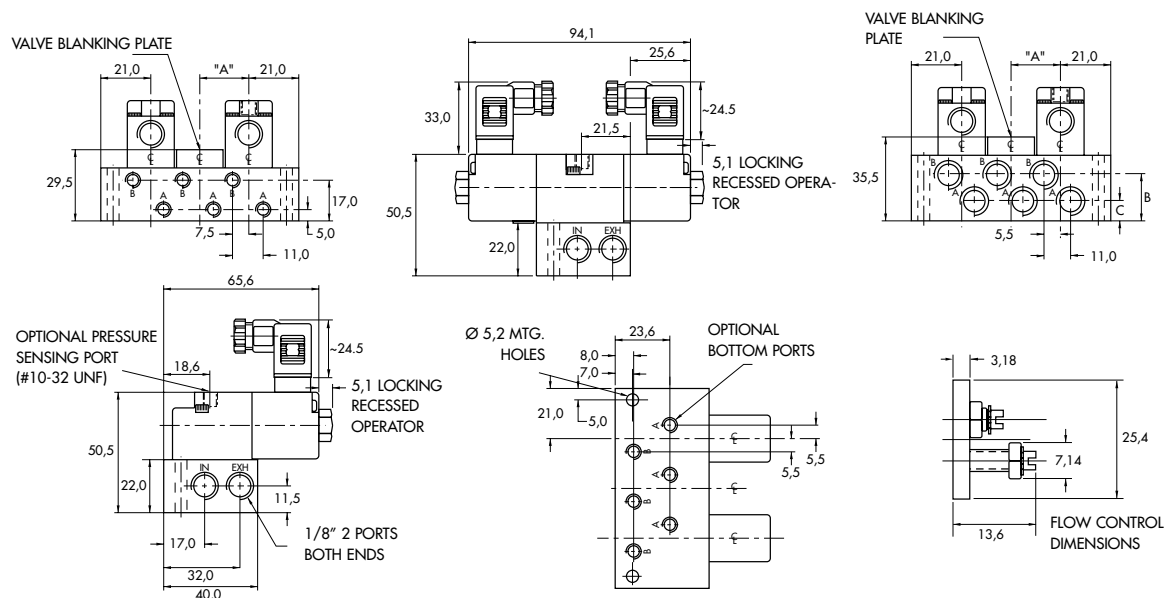
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

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



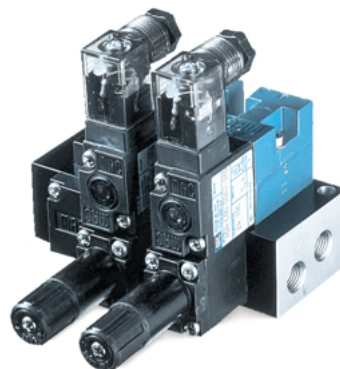
Function	Port size	Flow [Max]	Circuit bar mounting
4/2	1/8" NPTF - #10-32 UNF	0.10C_v	non plug-in with Pr. Reg.

OPERATIONAL BENEFITS

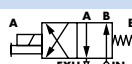
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER



HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve w/o gage port	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
Valve w/ gage port	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
1/8" NPTF	21 (w/o gage)	EBM45A-003A-xx	EBM45A-004A-xx
# 10-32 UNF	21 (w/o gage)	EBM45A-003B-xx	EBM45A-004B-xx
1/8" NPTF	40 (w/ gage)	EBM45A-023A-xx	EBM45A-024A-xx
# 10-32 UNF	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)

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



**TECHNICAL
DATA**

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

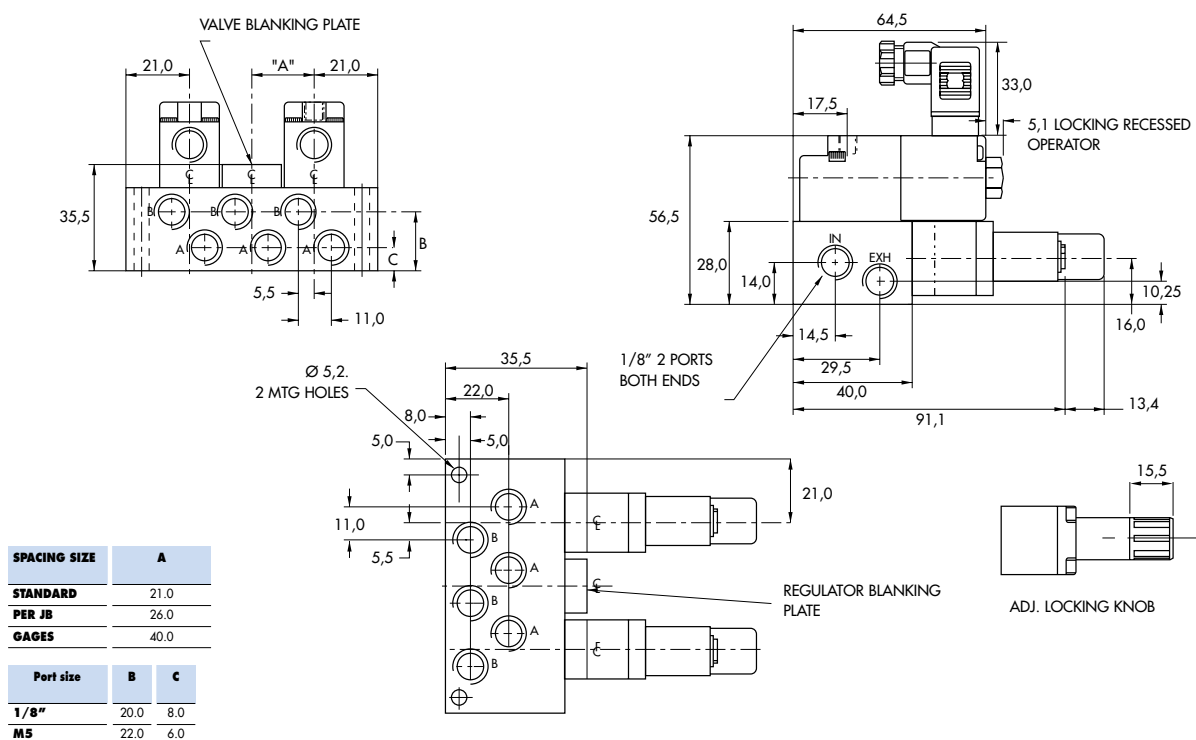
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

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

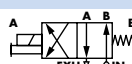
OPERATIONAL BENEFITS

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.

Reset

HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve w/o gage port	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
Valve w/ gage port	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
1/8" NPTF	21 (w/o gage)	EBM45A-007A-xx	EBM45A-008A-xx
# 10-32 UNF	21 (w/o gage)	EBM45A-007B-xx	EBM45A-008B-xx
1/8" NPTF	40 (w/ gage)	EBM45A-027A-xx	EBM45A-028A-xx
# 10-32 UNF	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)

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



TECHNICAL DATA

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

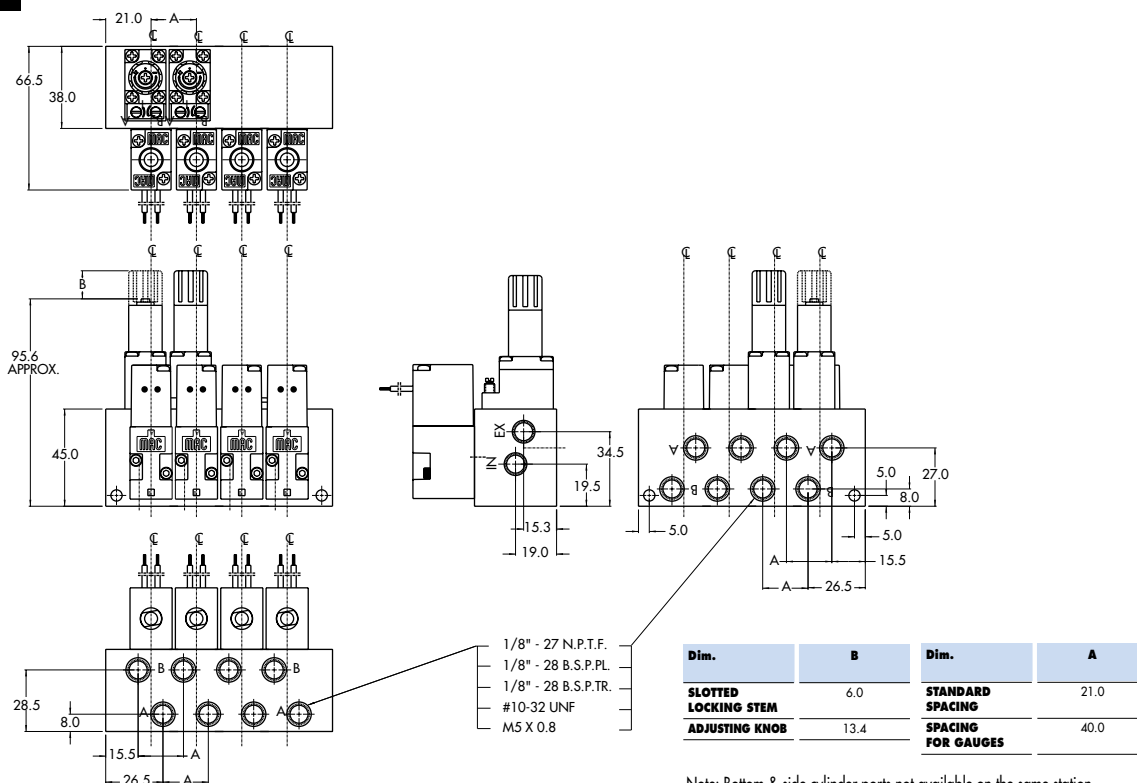
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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



Function	Port size	Flow [Max]	Circuit bar mounting
4/2	1/8" NPTF - #10-32 UNF	0.10C_v	plug-in

OPERATIONAL BENEFITS

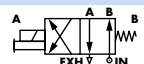
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

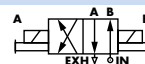
HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator



45A-L00-DxxJ-xFM

Double operator (Minimum DC wattage 5,4W)



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
1/8" NPTF	21	ECD45A-001A-A0-xx	ECD45A-002A-A0-xx
# 10-32 UNF	21	ECD45A-001B-A0-xx	ECD45A-002B-A0-xx
1/8" NPTF	30	ECD45A-031A-C0-xx	ECD45A-032A-C0-xx
# 10-32 UNF	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

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

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

**TECHNICAL
DATA**

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

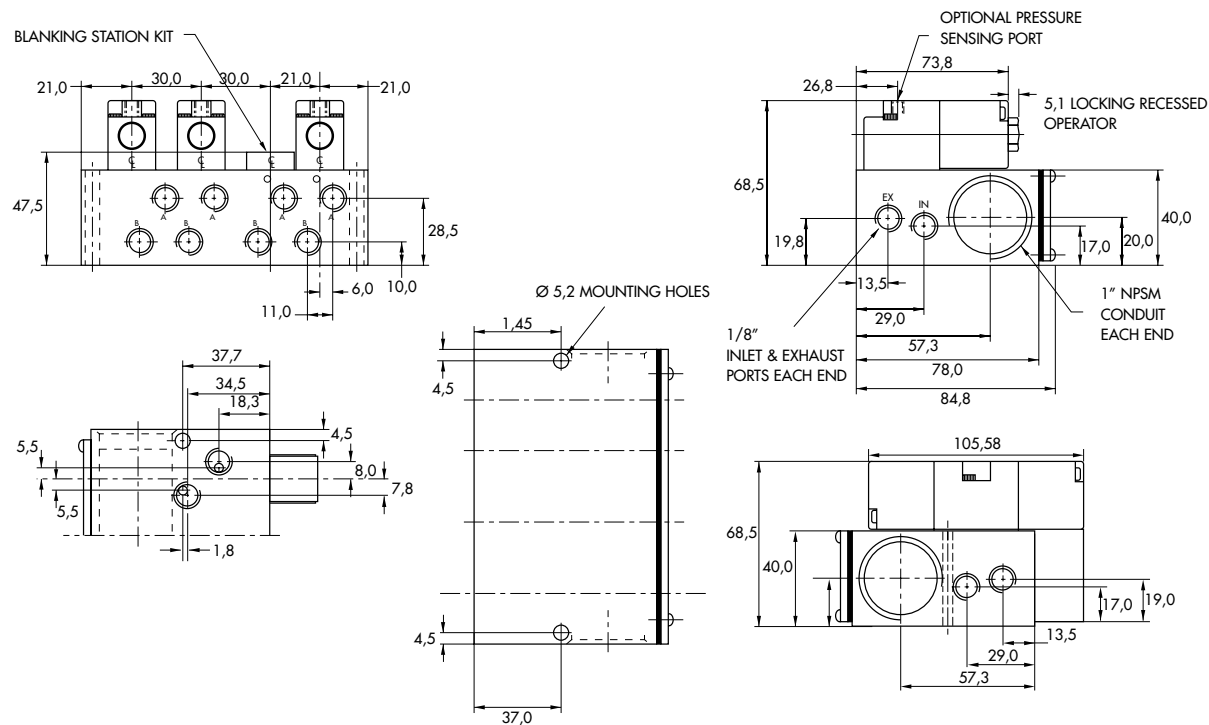
Spare parts :

- 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_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

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

OPERATIONAL BENEFITS

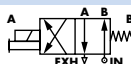
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

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

Single operator

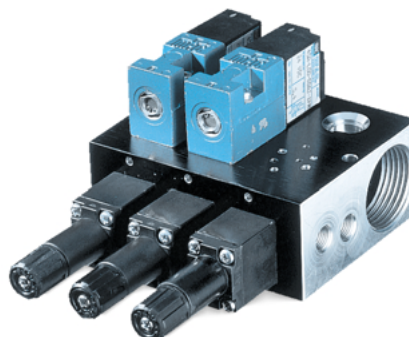


45A-L00-DxxJ-xFM

45A-M00-DxxJ-xFM

Valve w/o gage port

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

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

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



TECHNICAL DATA

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

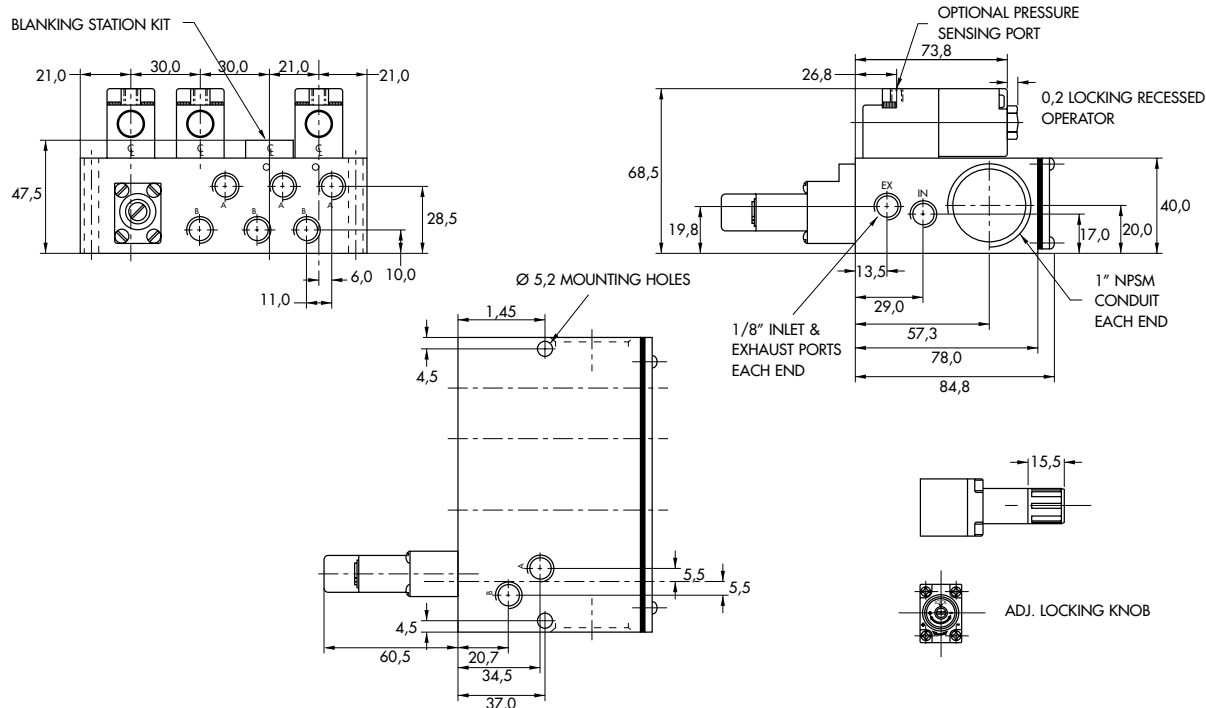
Spare parts :

- 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_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

OPERATIONAL BENEFITS

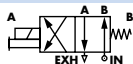
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

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

Single operator

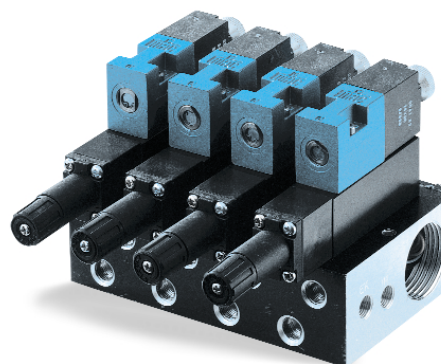


45A-L00-DxxJ-xFM

45A-M00-DxxJ-xFM

Valve w/o gage port

Valve w/ gage port



SOLENOID OPERATOR ➤

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

xx	Voltage
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)

x	Manual operator
1	Non-locking Recessed
2	Locking Recessed

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
1/8" NPTF	21	ECD45A-001A-A0-xx	ECD45A-002A-A0-xx
# 10-32 UNF	21	ECD45A-001B-A0-xx	ECD45A-002B-A0-xx
1/8" NPTF	30	ECD45A-031A-C0-xx	ECD45A-032A-C0-xx
# 10-32 UNF	30	ECD45A-031B-C0-xx	ECD45A-032B-C0-xx
1/8" NPTF	40	ECD45A-021A-A0-xx	ECD45A-022A-A0-xx
# 10-32 UNF	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)

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



**TECHNICAL
DATA**

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

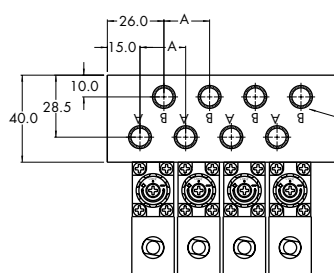
Spare parts :

- 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.

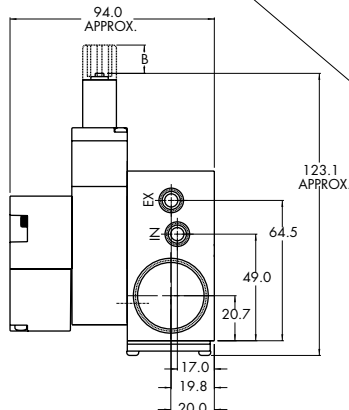
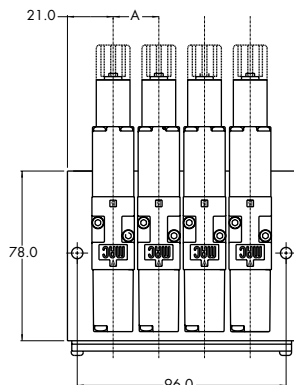
Options :

- BSPP threads. • High flow up to 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS

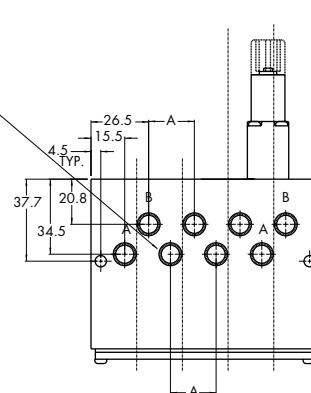


1/8" - 27 N.P.T.F.
1/8" - 28 B.S.P.PL.
1/8" - 28 B.S.P.T.R.
#10-32
M5 0.8



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

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



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

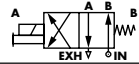
OPERATIONAL BENEFITS

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.

Reset

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
1/8" NPTF	21	-----	ECD45A-006A-A0-xx
# 10-32 UNF	21	-----	ECD45A-006B-A0-xx
1/8" NPTF	30	ECD45A-035A-A0-xx	-----
# 10-32 UNF	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)

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



TECHNICAL DATA

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

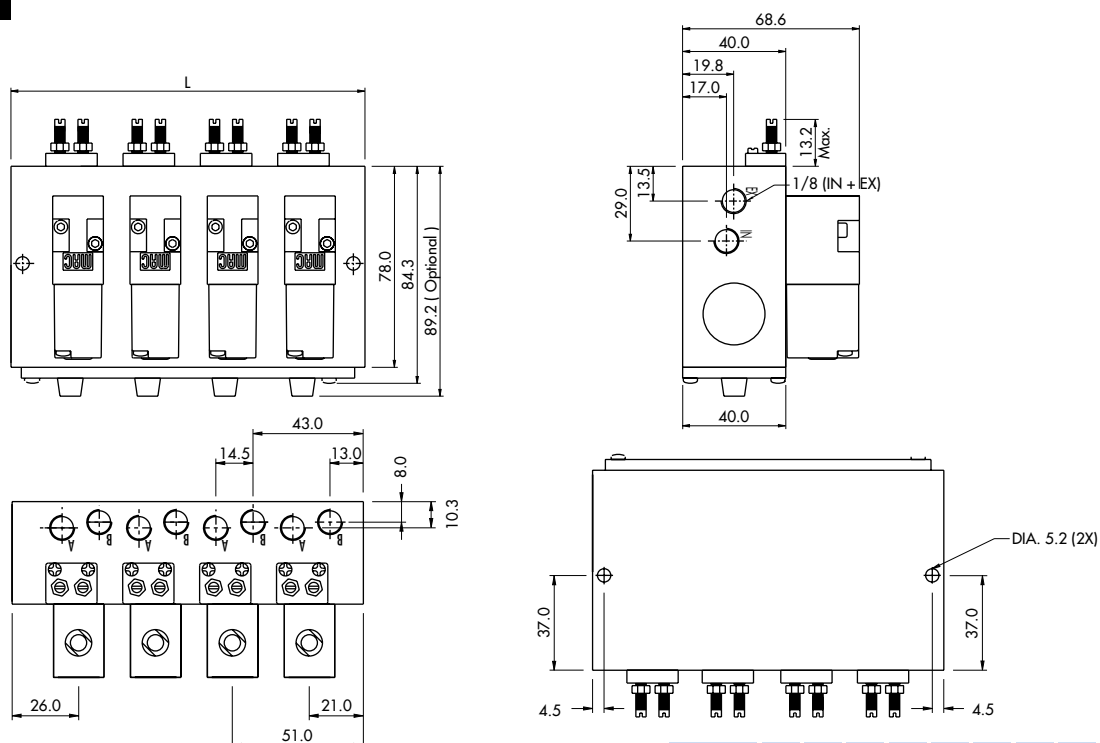
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



Number of stations	2	3	4	5	6	7	8	9	10
DIM. L	77.0	107.0	137.0	167.0	197.0	227.0	257.0	287.0	317.0

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



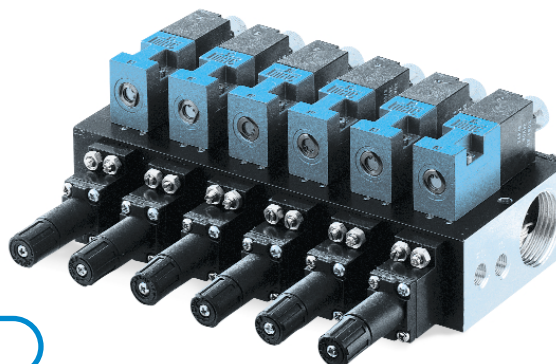
Function	Port size	Flow [Max]	Circuit bar mounting
4/2	1/8" NPTF - #10-32 UNF	0.10C_v	plug-in with Pr. Reg. and F. C.

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.

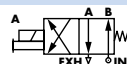
Reset

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
1/8" NPTF	21	ECD45A-007A-A0-xx
# 10-32 UNF	21	ECD45A-007B-A0-xx
1/8" NPTF	30	ECD45A-037A-C0-xx
# 10-32 UNF	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)

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



**TECHNICAL
DATA**

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

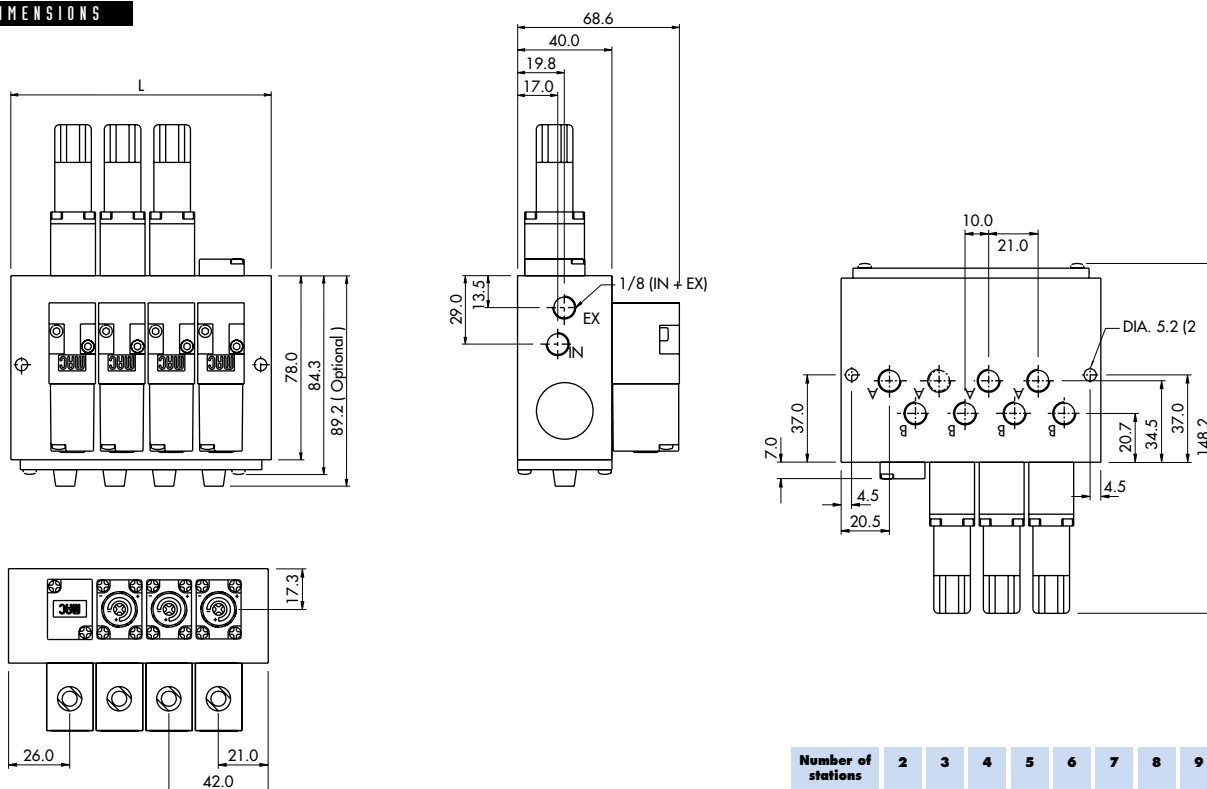
Spare parts :

- 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_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



Number of stations	2	3	4	5	6	7	8	9	10
DIM. L	68.0	89.0	110.0	131.0	152.0	173.0	194.0	215.0	236.0

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

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

OPERATIONAL BENEFITS

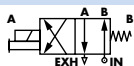
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

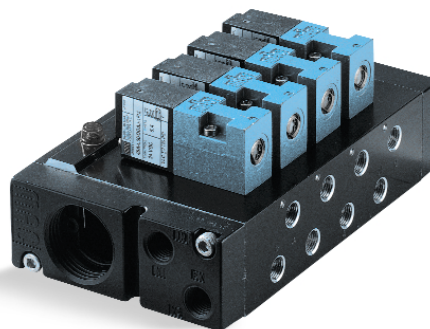
HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator



45A-L00-DxxJ-xFM

Valve less base



SOLENOID OPERATOR ➤

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

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
1/8" NPTF	26	ECE45A-011A-C0-xx	ECE45A-012A-C0-xx
# 10-32 UNF	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**

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

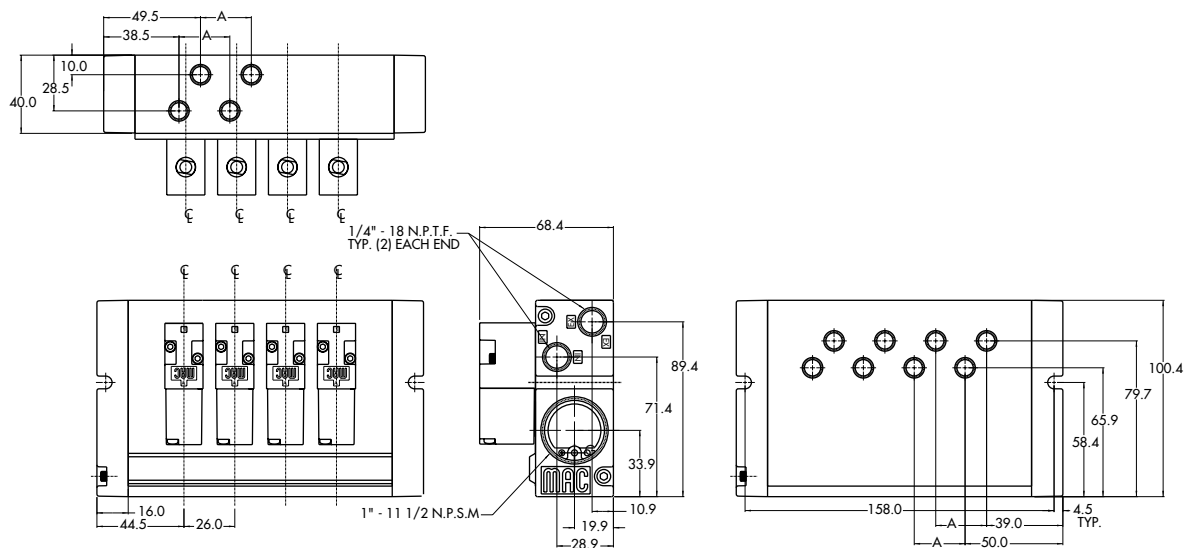
Spare parts :

- 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_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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
4/2	1/8" NPTF - #10-32 UNF	0.10C_v	plug-in with integral terminal strip and side Pr. Reg.

OPERATIONAL BENEFITS

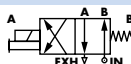
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

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

Single operator

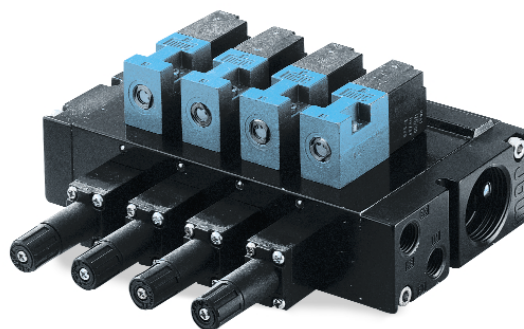


45A-L00-DxxJ-xFM

45A-M00-DxxJ-xFM

Valve less base w/o gage port

Valve less base w/ gage port



SOLENOID OPERATOR ➤

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

xx	Voltage
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)

x	Manual operator
1	Non-locking Recessed
2	Locking Recessed

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

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

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

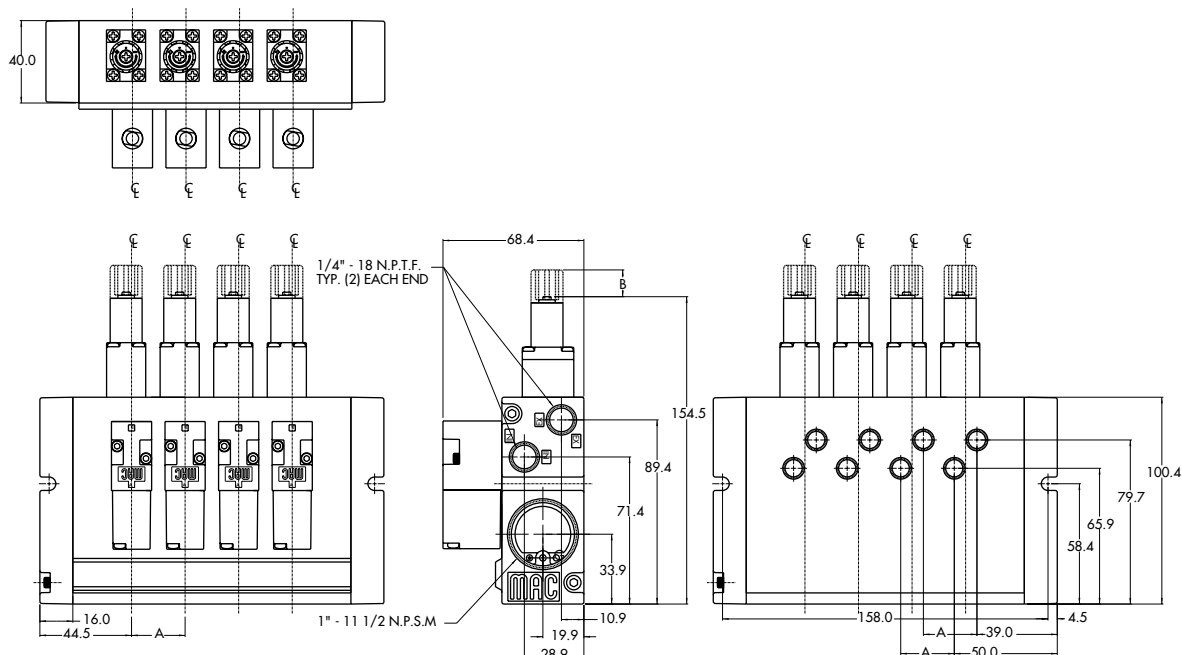
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

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

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

OPERATIONAL BENEFITS

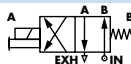
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

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

Single operator

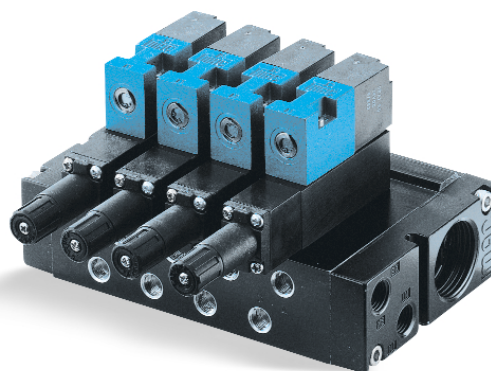


45A-L00-DxxJ-xFM

45A-M00-DxxJ-xFM

Valve w/o gage port

Valve w/ gage port



SOLENOID OPERATOR ➤

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

xx	Voltage
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)

x	Manual operator
1	Non-locking Recessed
2	Locking Recessed

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

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

** C0 = terminal strip

CA = terminal strip w/light (120V)

CB = terminal strip w/light (240V)

CD = terminal strip w/light (24V)

**TECHNICAL
DATA**

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

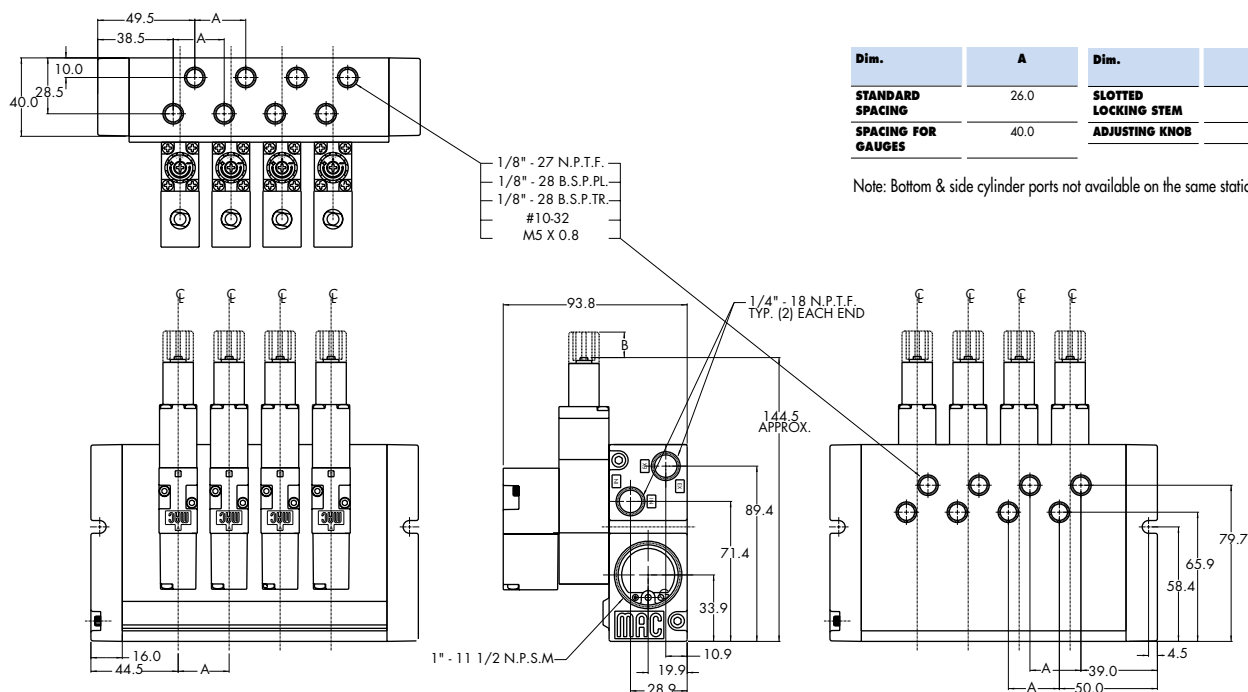
Spare parts :

- 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_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



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

OPERATIONAL BENEFITS

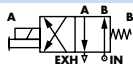
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

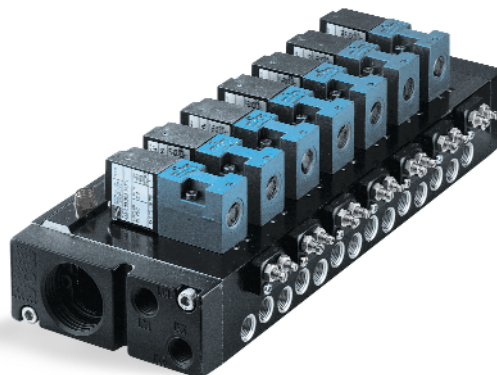
HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING "PLUG-IN"

Single operator



45A-L00-DxxJ-xFM

Valve less base



SOLENOID OPERATOR ➤

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

xx	Voltage
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)

x	Manual operator
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
1/8" NPTF	26	-----	ECE45A-016A-C0-xx
# 10-32 UNF	26	-----	ECE45A-016B-C0-xx
1/8" NPTF	30	ECE45A-035A-C0-xx	-----
# 10-32 UNF	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).

** C0 = terminal strip

CA = terminal strip w/light (120V)

CB = terminal strip w/light (240V)

CD = terminal strip w/light (24V)

**TECHNICAL
DATA**

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

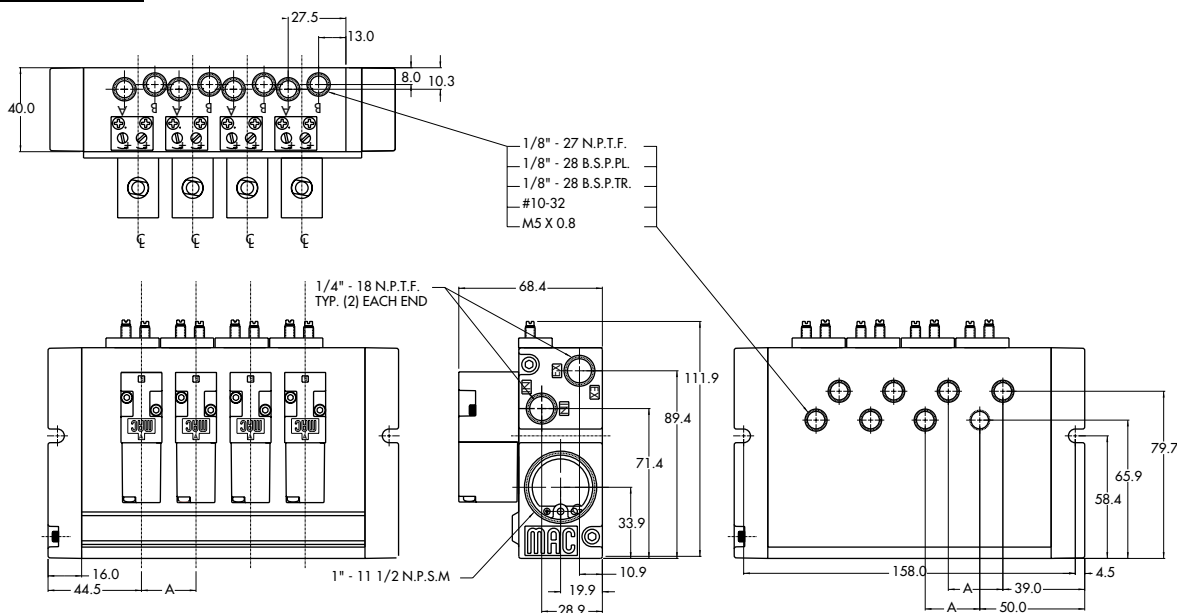
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS



Dim.	A
STANDARD SPACING	26.0
OPTIONAL SPACING	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
4/2	1/8" NPTF - #10-32 UNF	0.10C_v	plug-in with integral terminal strip with Pr. Reg. and F. C.

OPERATIONAL BENEFITS

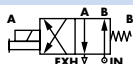
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.

Reset

HOW TO ORDER

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

Single operator

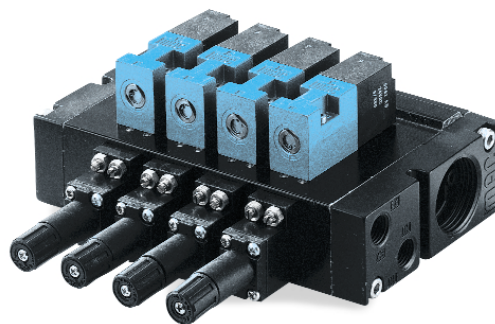


45A-L00-DxxJ-xFM

45A-M00-DxxJ-xFM

Valve less base

Valve less base w/ gage port



SOLENOID OPERATOR ➤

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

xx	Voltage
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)

x	Manual operator
1	Non-locking Recessed
2	Locking Recessed

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

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

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

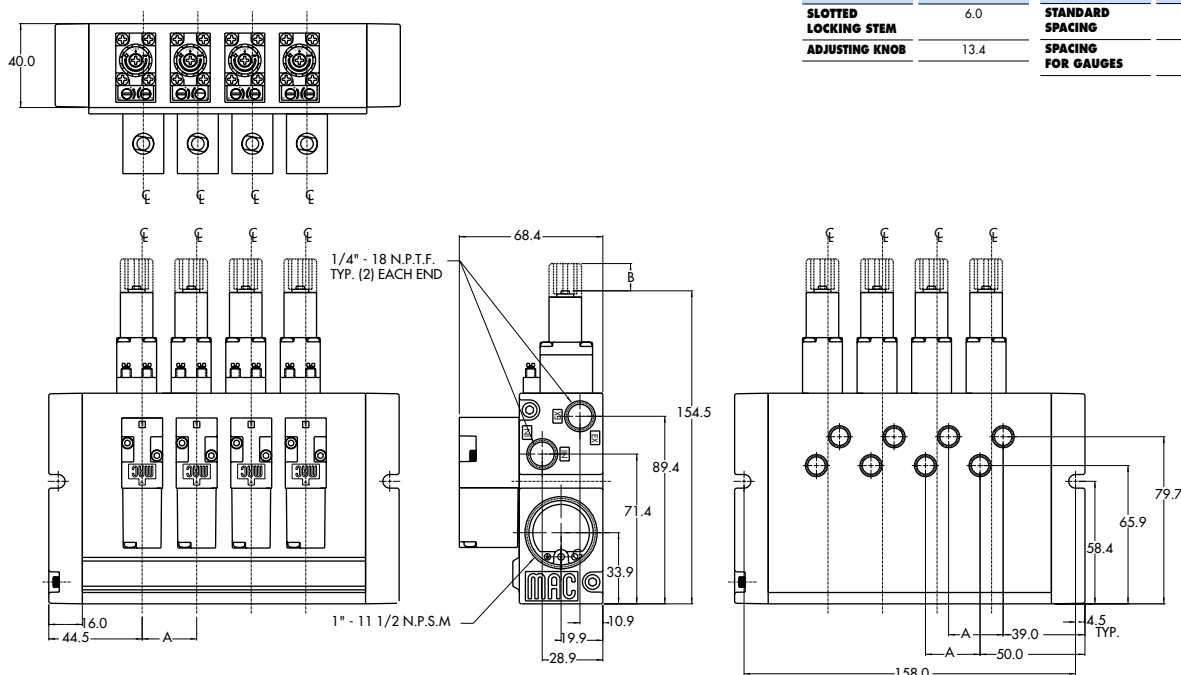
Spare parts :

- 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 0.14 C_v, according to wattage. • Isolation of inlet and/or exhaust.

DIMENSIONS





Section 2

Options

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



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

VALVE CODE ➤

-D XX 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

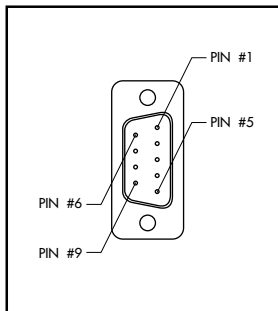
- D XX X - X XX	MANUAL OPERATOR
0	No operator
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

4. ELECTRICAL CONNECTION

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

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

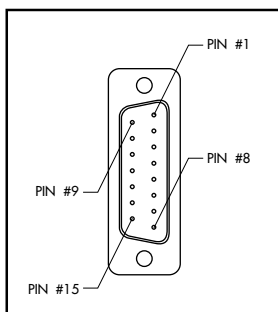
MOD. S009



TECHNICAL DATA

- Type «SUB_D»
- Number of contacts : 9
- Solder termination (Dia. 0.6 mm/0.14 mm²/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance $\geq 5.0^9 \Omega$
- Protection class IP40 (DIN 40050)
- Number of solenoids : 7 max.
- Max. 24 V=/5.4 W per solenoid
- 2 common wires

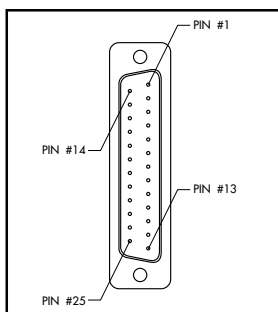
MOD. S015



TECHNICAL DATA

- Type «SUB_D»
- Number of contacts : 15
- Solder termination (Dia. 0.6 mm/0.14 mm²/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance $\geq 5.0^9 \Omega$
- 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 mm²/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance $\geq 5.0^9 \Omega$
- 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

