



Series 77

## Direct solenoid and solenoid pilot operated valves

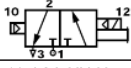
Function	Port size	Flow [Max]	Individual mounting
3/2 NC, 2/2 NC	1/8" - 1/4"	1.0 Cv	Inline

### OPERATIONAL BENEFITS

1. The 4-way pilot develops maximum shifting force both ways.
2. Patented conical seats for long life.
3. Short stroke with high flow.
4. Bonded poppet with minimal friction.
5. Wiping effect eliminates sticking.
6. Extremely repeatable response.



### HOW TO ORDER

Port size	Pilot	Single operator NC Valve
		
1/8" NPTF	Internal	77A-11-A0A-XX-Xxxx-xxx
	External	77A-11-A0B-XX-Xxxx-xxx
1/4" NPTF	Internal	77A-11-B0A-XX-Xxxx-xxx
	External	77A-11-B0B-XX-Xxxx-xxx

### SOLENOID OPERATOR

#### DM - D xxx-xxx

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connector
JA	110/50, 120/60 (2.9W)	A	18" (Flying leads)	1	Non locking	KA	Square connector
JB	220/50, 240/60 (2.9W)	B	24" (Flying leads)	2	Locking	KD	Square connector with light
JC	24/60 (2.9W)	J	Connector			JB	Rectangular connector
FB	24 VDC (1.8W)					JD	Rectangular connector with light
DA	24 VDC (5.4W)					BA	Flying leads
DF	24 VDC (12.7W)						

### SOLENOID OPERATOR

#### GM - G xxx-xxx

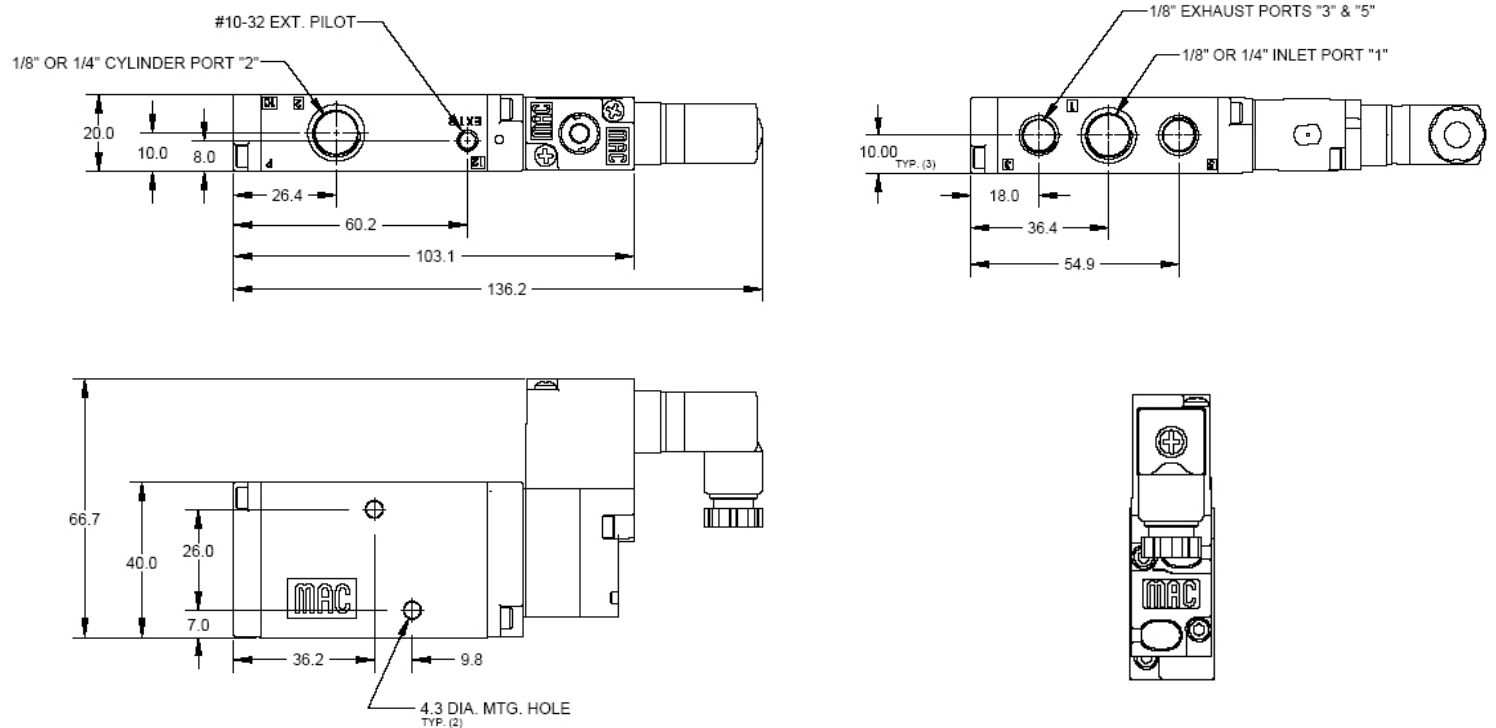
XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connector
DC	24 VDC (1.8W)	A	18"	1	Non locking	BA	Flying leads
DD	24 VDC (2.5W)	B	24"	2	Locking	BT	Flying leads with light
DF	24 VDC (4.0W)	C	36"			KA	Plug-in wire assy.
						KT	Plug-in wire assy. with light

## TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI (External pilot) 30 to 120 PSI (Internal pilot)
Pilot pressure :	30 to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 $\mu$
Temperature range :	0°F to 120°F
Flow (at 6 bar, $\Delta P=1$ bar) :	1.0 Cv
Coil :	Class A continuous duty, #22 AWG x 18 lead wires
Voltage range:	-15% to +10% of nominal voltage
Protection :	Consult factory
Power:	DC 12/24 Volt 1.0w to 5.4w (higher wattages available) AC 24, 120, 220, 240 VAC

Options: • BSPP threads

## DIMENSIONS





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Individual mounting
3/2 NC, 2/2 NC	1/8" - 1/4"	1.0 Cv	Sub-base

OPERATIONAL BENEFITS

- 1. The 4-way pilot develops maximum shifting force both ways.
- 2. Patented conical seats for long life.
- 3. Short stroke with high flow.
- 4. Bonded poppet with minimal friction.
- 5. Wiping effect eliminates sticking.
- 6. Extremely repeatable response.

HOW TO ORDER

Port size	Pilot	Single Operator NC Valve
Valve less base	Internal	77A-13-00C-XX-X-xxx-xxx
	External	77A-13-00E-XX-X-xxx-xxx
1/8" NPTF	Internal	77A-13-A1C-XX-X-xxx-xxx
	External	77A-13-A1E-XX-X-xxx-xxx
1/4" NPTF	Internal	77A-13-B1C-XX-X-xxx-xxx
	External	77A-13-B1E-XX-X-xxx-xxx

Note: Above models are side ported

SOLENOID OPERATOR

DM-D xxx-xxx

XX Voltage	X Wire length	X Manual operator	XX Electrical connector
JA 110/50, 120/60 (2.9W)	A 18" (Flying leads)	1 Non locking	KA Square connector
JB 220/50, 240/60 (2.9W)	B 24" (Flying leads)	2 Locking	KD Square connector with light
JC 24/60 (2.9W)	J Connector		JB Rectangular connector
FB 24 VDC (1.8W)			JD Rectangular connector with light
DA 24 VDC (5.4W)			BA Flying leads
DF 24 VDC (12.7W)			

SOLENOID OPERATOR

GM-G xxx-xxx

XX Voltage	X Wire length	X Manual operator	XX Electrical connector
DC 24 VDC (1.8W)	A 18"	1 Non locking	BA Flying leads
DD 24 VDC (2.5W)	B 24"	2 Locking	BT Flying leads with light
DF 24 VDC (4.0W)	C 36"		KA Plug-in wire assy.
			KT Plug-in wire assy. with light

OPTIONS

77A-13-00 C -XX-X-xxx-xxx

- C Internal pilot
- D\* Internal pilot with pilot exhaust out main exhaust
- E External pilot 10 end
- F\* External pilot 10 end with pilot exhaust out main exhaust
- G External pilot 12 end
- H\* External pilot 12 end with pilot exhaust out main exhaust

77A-13-A1 C -XX-X-xxx-xxx

For bottom cylinder port, replace by 2

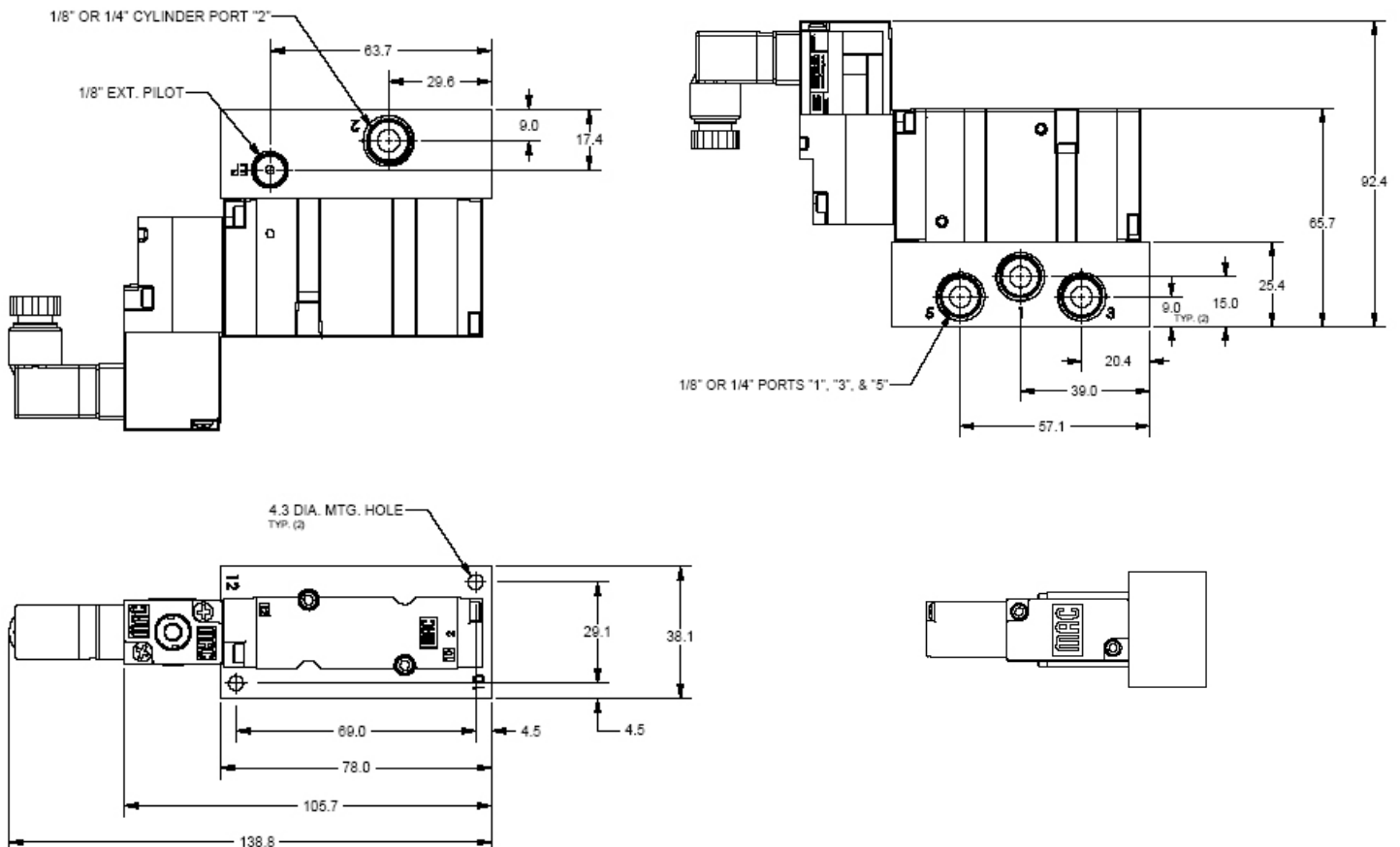
\* Must use DU pilot body. Main exhaust cannot be restricted (i.e. 77A-13-00D-DU-DJAJ-1KA).

## TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI (External pilot) 30 to 120 PSI (Internal pilot)
Pilot pressure :	30 to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 $\mu$
Temperature range :	0°F to 120°F
Flow (at 6 bar, $\Delta P=1$ bar) :	1.0 Cv
Coil :	Class A continuous duty, #22 AWG x 18 lead wires
Voltage range:	-15% to +10% of nominal voltage
Protection :	Consult factory
Power:	DC 12/24 Volt 1.0w to 5.4w (higher wattages available) AC 24, 120, 220, 240 VAC

Options: • BSPP threads

## DIMENSIONS





## Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Circuit bar mounting
3/2 NC, 2/2 NC	1/8" - 1/4"	1.0 Cv	Non plug-in

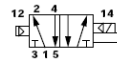
### OPERATIONAL BENEFITS

1. The 4-way pilot develops maximum shifting force both ways.
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### HOW TO ORDER

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

Port size	Pilot	Single Operator NC Valve
Valve less base	Internal	77A-13-00C-XX-XXXX-XXX
	External "10" end	77A-13-00E-XX-XXXX-XXX
	External "12" end	77A-13-00G-XX-XXXX-XXX



#### SOLENOID OPERATOR

#### DM - D XXX-XXX

XX Voltage	X Wire length	X Manual operator	XX Electrical connector
JA 110/50, 120/60 (2.9W)	A 18" (Flying leads)	1 Non locking	KA Square connector
JB 220/50, 240/60 (2.9W)	B 24" (Flying leads)	2 Locking	KD Square connector with light
JC 24/60 (2.9W)	J Connector		JB** Rectangular connector
FB 24 VDC (1.8W)			JD** Rectangular connector with light
DA 24 VDC (5.4W)			BA Flying leads
DF 24 VDC (12.7W)			

\*\* These connector options require 26mm spacing - consult factory

#### SOLENOID OPERATOR

#### GM - G XXX-XXX

XX Voltage	X Wire length	X Manual operator	XX Electrical connector
DC 24 VDC (1.8W)	A 18"	1 Non locking	BA Flying leads
DD 24 VDC (2.5W)	B 24"	2 Locking	BT Flying leads with light
DF 24 VDC (4.0W)	C 36"		KA Plug-in wire assy.
			KT Plug-in wire assy. with light

#### HOW TO ORDER CIRCUIT BAR (21mm spacing)

Port size	Pilot air	Side Cyl. Port	Bottom Cyl. Port
1/8" NPTF	Internal	CBM77A-00AAA-xx	CBM77A-00BAA-xx
	External from 10 end*	CBM77A-00ABA-xx	CBM77A-00BBA-xx
	External from 12 end*	CBM77A-00ACA-xx	CBM77A-00BCA-xx
1/4" NPTF	Internal	CBM77A-00AAD-xx	CBM77A-00BAD-xx
	External from 10 end*	CBM77A-00ABD-xx	CBM77A-00BBD-xx
	External from 12 end*	CBM77A-00ACD-xx	CBM77A-00BCD-xx

xx = number of stations (03 = 3 stations)

Note:

- For valves mounted on base at the factory, add -9 to the model number.
- Common through ports are 3/8"

\*Common external pilot 1/8"

## TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI (External pilot) 30 to 120 PSI (Internal pilot)
Pilot pressure :	30 to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 $\mu$
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