

SERIES FEATURES

- \bullet The patented MACSOLENOID $^{\circledR}$ with its non-burn out feature on AC service.
- Air/spring return on single solenoid valves.
- Use for lube or non-lube service.
- Optional common conduit stacking valve with integral wiring space and indicator lights
- Optional integral individual exhaust flow controls.
- Optional low wattage DC solenoids down to 1 watt.
- Various types of manual operators and solenoid enclosures.

800 ISO 1 ISO 2 ISO 3 MAC 125A MAC 250A MAC 500A

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SPECIAL APPLICATIONS:

On all single pressure models, energizing the operator closest to port #5 supplies pressure to cylinder port "2" and energizing the operator closest to port #4 supplies pressure to cylinder port "3". For the following special applications, additional piping considerations are required.

EXTERNAL PILOT APPLICATIONS:

An External Pilot is only required when the main valve pressure is less than 20 PSIG on single solenoid or 10 PSIG on double solenoid valves in 2-position models, or less than 20 PSIG on 3-position double solenoid models. Also an External Pilot is required when main valve pressure is in excess of 150 PSIG.

INDIVIDUAL VALVES: The External Pilot supply is connected to the External Pilot port in the piston adapter. The valve must be an External Pilot model.

STACKING VALVES: The External Pilot supply is connected to the External Pilot ports in the end plates. The valve is the same valve for either Internal or External Pilot. The end plate must be the external pilot type.

DUAL PRESSURE (TWO INLET) APPLICATIONS:

When two pressures are required within a valve, a Dual Pressure (Inlet) model must be used. Additionally the following must be adhered to:

INDIVIDUAL VALVES: If both pressures are below the minimum, use an External Pilot supply as described above for Individual valves and connect the two pressures to ports #4 and #5. Otherwise, use an Internal Pilot model and connect the higher pressure to port #5 and the lower pressure to port #4.

STACKING VALVES: Use an External Pilot Manifold End Plate Kid, as described above for Stacking Valves and connect the two pressures to the Exhaust ports in the end plate.

MULTIPLE PRESSURES TO A STACK:

By isolating, different pressures can be supplied to each end of a stack to provide two pressures. If more than two pressures are required, a Dual Inlet Pressure Block can be installed providing 2 more inlet pressures to a stack. With the use of 1 or more of these Pressure Blocks, a stack can have virtually unlimited inlet pressures.

VACUUM APPLICATIONS:

Use an External Pilot model as described under "External Pilot Applications", (Individual valve or Stacking).

For single pressure, dual exhaust type valve ports #4 & #5 (Exhausts) should be connected to the vacuum supply and port #1 (Inlet) to atmosphere.

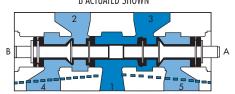
For dual pressure, single exhaust type valves, vacuum should be connected to port #1 (Inlet) and ports #4 & #5 (Exhausts) to atmosphere.

SELECTOR APPLICATIONS:

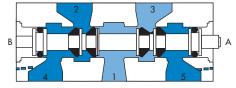
Use an External Pilot model as described above, if both pressures are below the minimum pilot pressure; otherwise use an Internal Pilot model. In either case, use a single pressure model and connect the higher pressure to port #1 (Inlet) and the lower pressure to port #4 (Exhaust) if using cylinder port #2 or to port #5 (Exhaust) if using cylinder port #3.

SPOOL CONFIGURATIONS

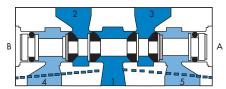
2-POSITION SGL. PRESSURE (SPOOL #12184)
B ACTUATED SHOWN



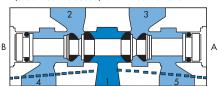
2-POSITION DUAL PRESSURE (SPOOL ASSY.#10266) B ACTUATED SHOWN



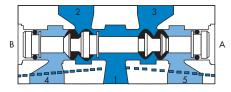
3-POSITION SGL. PRESS. CLOSED CENTER (SPOOL ASSY. #S-00004) CENTER POSITION SHOWN



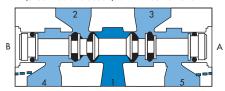
3-POSITION SGL. PRESS. OPEN CENTER (SPOOL ASSY.#S-00003) CENTER POSITION SHOWN



3-POSITION SGL. PRESS. PRESSURE CENTER (SPOOL ASSY. #S-08003) CENTER POSITION SHOWN



3-POSITION DUAL PRESS. PRESSURE CENTER (SPOOL ASSY. #S-08002) CENTER POSITION SHOWN





Function	Port size	Flow (Max)	Individual mounting		Series
5/2 - 5/3	1/4"	1.4 C _v	inline		

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



HOW TO	ORDER
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SOLENOID OPERATOR >

Port size	Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
		3 2 B 	3 2 B 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B 2 3 W 4 1 5 W 4 1 5	B 2 3 W 4 1 5	B 2 3 W A 37 415
1/4" NPTF	Internal	811C-PM- xxyzz -152	821C-PM- xxyzz -152	825C-PM- xxyzz -552	825C-PM- xxyzz -652	825C-PM- xxyzz -852
	External	812C-PM- xxyzz -112	822C-PM- xxyzz -112	826C-PM- xxyzz -512	826C-PM- xxyzz -612	826C-PM- xxyzz -812

XX Y ZZ

XX	Voltage	Y	Manual operator	ZZ	Electrical connection
11	120/60, 110/50	1	Non-locking	JB	Rectangular connector
12	240/60, 220/50	2	Locking	JD	Rectangular connector with light
22	24/60, 24/50			JA	Square connector
59	24 VDC (2.5 W)			JC	Square connector with light
87	24 VDC (17.1 W)			BA	Flying leads (18")
61	24 VDC (8.5 W)			CA	Conduit 1/2" NPS

^{*} Other options available, see page 357.

MODIFICATIONS - N° 0358 - 3/8'' inlet and cylinder ports, exhaust ports 1/4'' **MODIFICATIONS** - N° 1080 - NAMUR interface.

Add mod. N° after valve part n°. - **EXAMPLE :** 811C-PM-111CA-152 Mod. 0358.

OPTIONS

811C-PM-111CA-<u>1</u>52

- For 2 position dual pressure : replace by 2.

825C-PM-111CA-<u>8</u>52

- For 3 position dual pressure, pressure center: replace by 7.

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800 ISO 1

ISO 2 ISO 3 MAC 125A MAC 250A MAC 500A







Response times:

Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40 µ

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, $\Delta P = 1 bar$): 1/4": (1.4 C_v)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range: -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush: 14.8 VA Holding: 10.9 VA

= 1 to 17.1 W 24 VDC (8.5 W)

120/60 Energize : 5-11 ms De-energize : 9-16 ms

Energize: 8 ms

Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

De-energize: 10 ms

Options: • BSPP threads. • NAMUR interface. • Explosion-proof model. • Flow control/muffler (1/4"): 10951

Dimensions shown are metric (mm) DIMENSIONS Ø 6,7 ~31,0 56,0 50,8 OPER. "B" OPER. "A' 57,2 47.6 35,1 4 1/8" EXT. PILOT (OPTION) 44,5 136,0 183,2 30,0 25,4 1/4" (5 x)



Function	Port size	Flow (Max)	Manifold Mounting	Series
5/2 - 5/3	1/4"	1.4 C _v	stacking body with 1 common port (inlet)	

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- 5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



HOW TO ORDER

Port size	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
	A 3 2 B 5 V V V V V V V V V V V V V V V V V V	$ \begin{array}{c c} A & 3 & 2 & B \\ \hline $	B 2 3 A A A A A A A A A A A A A A A A A A	B 2 3 M A 4 1 5	B 2 3 A A A A A A A A A A A A A A A A A A
1/4" NPTF	811C-PM- xxyzz -132	821C-PM- xxyzz -132	825C-PM- xxyzz -532	825C-PM- xxyzz -632	825C-PM- xxyzz -832

XX Y ZZ

ХХ	Voltage	Y	Manual operator	ZZ	Electrical connection
11	120/60, 110/50	1	Non-locking	JB	Rectangular connector
12	240/60, 220/50	2	Locking	JD	Rectangular connector with light
22	24/60, 24/50			RA	Conduit 3/8" NPS
59	24 VDC (2.5 W)			BA	Flying leads (18")
87	24 VDC (17.1 W)				
61	24 VDC (8.5 W)				

^{*} Other options available, see page 357.

MANIFOLD END PLATE KITS (NPTF)*					
INT. PILOT - PART N°.	EXT. PILOT - PART N°.	MODELS USED WITH			
M-08001-01-01	M-08001-02-01	3 com. port or 1 com. port models, stacks of 1 thru 16 valves			
M-00005-01-01	M-00005-02-01	3 com. port or 1 com. port models, stacks of 17 or more valves			

^{*} Add letter **P** at end of part N°. for BSPP threads; **EXAMPLE**: M-08001-01-01**P** Note: (1) end plate kit required per stack.

OPTIONS

811C-PM-111BA-<u>1</u>32

- For 2 position dual pressure : replace by 2.

825C-PM-111BA-<u>8</u>32

- For 3 position dual pressure, pressure center : replace by 7.



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ISO 1 **ISO 2 ISO 3 MAC 125A MAC 250A**

MAC 500A

147







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, $\Delta P=1$ bar): 1/4": (1.4 C_v)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range : -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush : 14.8 VA Holding : 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize: 8 ms De-energize: 10 ms

120/60 Energize : 5-11 ms De-energize : 9-16 ms

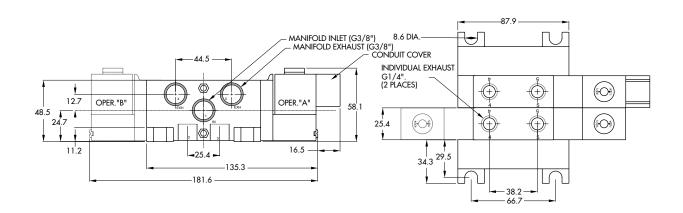
Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

• Inlet isolator: N-08001 • Exhaust isolator (x2): N-08002

Options : • BSPP threads. • Dual inlet block: M-08003 • Flow control/muffler (1/4") : 10951

DIMENSIONS





Function	Port size	Flow (Max)	Manifold mounting	Series
5/2 - 5/3	1/4" - 3/8"	1.4 C _v	stacking body with 3 common ports (inlet & exhausts)	

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- 5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



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HOW TO ORDER

SOLENOID OPERATOR ➤

Port size	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
	A 3 2 B 5 0 0 4 4	$ \begin{array}{c c} A & 3 & 2 & B \\ \hline 7 & 7 & 7 & 7 & 7 \end{array} $ $ \begin{array}{c c} 5 & 7 & 7 & 7 & 7 \end{array} $	B 2 3 A A A A A A A A A A A A A A A A A A	B 2 3 W A 3/1 A 1 5	B 2 3 A A A A A A A A A A A A A A A A A A
1/4" NPTF	811C-PM- xxyzz -122	821C-PM- xxyzz -122	825C-PM- xxyzz -522	825C-PM- xxyzz -622	825C-PM- xxyzz -822
3/8" NPTF	811C-PM- xxyzz -123	821C-PM- xxyzz -123	825C-PM- xxyzz -523	825C-PM- xxyzz -623	825C-PM- xxyzz -823

XX	Voltage	
11	120/60, 110/50	
12	240/60, 220/50	
22	24/60, 24/50	
59	24 VDC (2.5 W)	
87	24 VDC (17.1 W)	
61	24 VDC (8.5 W)	

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X	Voltage	Y Manual operator	ZZ Electrical connection
1	120/60, 110/50	1 Non-locking	JB Rectangular connector
2	240/60, 220/50	2 Locking	JD Rectangular connector with light
2	24/60, 24/50		RA Conduit 3/8" NPS
9	24 VDC (2.5 W)		BA Flying leads (18")
37	24 VDC (17.1 W)		

^{*} Other options available, see page 357.

MANIFOLD END PLATE KITS (NPTF)*					
INT. PILOT - PART N°.	EXT. PILOT - PART N°.	MODELS USED WITH			
M-08001-01-01	M-08001-02-01	3 com. port or 1 com. port models, stacks of 1 thru 16 valves			
M-00005-01-01	M-00005-02-01	3 com. port or 1 com. port models, stacks of 17 or more valves			

^{*} Add letter ${f P}$ at end of part ${f N}^\circ.$ for BSPP threads; **EXAMPLE** : M-08001-01-01 ${f P}$ Note: (1) end plate kit required per stack.

OPTIONS

811C-PM-111RA-<u>1</u>22

- For 2 position dual pressure: replace by 2.

825C-PM-111RA-822

-- For 3 position dual pressure, pressure center: replace by 7.

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800 **ISO** 1

ISO 2 ISO 3 MAC 125A MAC 250A







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, ΔP=1bar): 1/4": (1.4 C_V), 3/8": (1.4 C_V)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range : -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush: 14.8 VA Holding: 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize: 8 ms De-energize: 10 ms

120/60 Energize: 5-11 ms De-energize: 9-16 ms

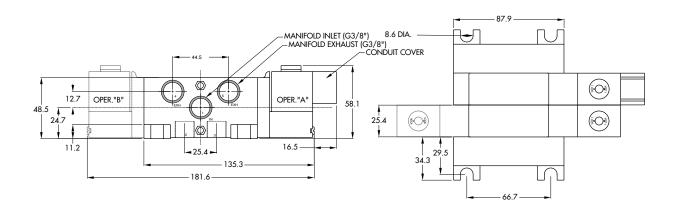
Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

• Inlet isolator : N-08001 • Exhaust isolator (x2) : N-08002.

Options : • BSPP threads. • Dual inlet block: M-08003.

DIMENSIONS





Function	Port size	Floш (Max)	Manifold mounting	Series
5/2 - 5/3	1/4" - 3/8"	1.4 C _v	stacking body with 3 common ports and integral F.C.	

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- 5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



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HOW TO ORDER

SOLENOID OPERATOR ➤

Port size	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
	A 3 2 B S S S S S S S S S S S S S S S S S S	3 2 B 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B 2 3 A A A A A A A A A A A A A A A A A A	B 2 3 W A 3/1 A 1 5	B 2 3 A A A A A A A A A A A A A A A A A A
1/4" NPTF	811C-PM- xxyzz -192	821C-PM- XXYZZ -192	825C-PM- xxyzz -592	825C-PM- XXYZZ -692	825C-PM- xxyzz -892
3/8" NPTF	811C-PM- xxyzz -193	821C-PM- xxyzz -193	825C-PM- xxyzz -593	825C-PM- xxyzz -693	825C-PM- xxyzz -893

XX	Voltage
11	120/60, 110/50
12	240/60, 220/50
22	24/60, 24/50
59	24 VDC (2.5 W)
87	24 VDC (17.1 W)
61	24 VDC (8.5 W)

XX	Voltage	Y	Manual operator	ZZ	Electrical connection
11	120/60, 110/50	1	Non-locking	JB	Rectangular connector
12	240/60, 220/50	2	Locking	JD	Rectangular connector with light
22	24/60, 24/50			RA	Conduit 3/8" NPS
59	24 VDC (2.5 W)			BA	Flying leads (18")
87	24 VDC (17.1 W)				

^{*} Other options available, see page 357.

MANIFOLD END PLATE KITS (NPTF)*				
INT. PILOT - PART N°.	EXT. PILOT - PART N°.	MODELS USED WITH		
M-08001-01-01	M-08001-02-01	3 com. port or 1 com. port models, stacks of 1 thru 16 valves		
M-00005-01-01	M-00005-02-01	3 com. port or 1 com. port models, stacks of 17 or more valves		

^{*} Add letter P at end of part N°. for BSPP threads; EXAMPLE: M-08001-01-01P Note: (1) end plate kit required per stack.

OPTIONS

811C-PM-111RA-<u>1</u>92

- For 2 position dual pressure : replace by 2.

825C-PM-111RA-892

- For 3 position dual pressure, pressure center: replace by 7.

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800 **ISO** 1

ISO 2 ISO 3 **MAC 125A MAC 250A**

MAC 500A







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, ΔP=1bar): 1/4": (1.4 C_V), 3/8": (1.4 C_V)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range: -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush: 14.8 VA Holding: 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize: 8 ms De-energize: 10 ms

120/60 Energize : 5-11 ms De-energize : 9-16 ms

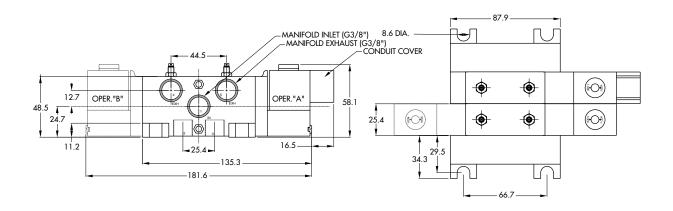
Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

• Inlet isolator : N-08001 • Exhaust isolator (x2) : N-08002.

Options : • BSPP threads. • Dual inlet block: M-08003.

DIMENSIONS





Function	Port size	Flow (Max)	Manifold mounting	Series
5/2 - 5/3	1/4" - 3/8"	1.4 C _v	stacking body with 3 common ports with	

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- 5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



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ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

Electrical connection

Common conduit

DA

HOW	TO	ORDER

Port size	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
	A 3 2 B S S S S S S S S S S S S S S S S S S	A 3 2 B	B 2 3 A A A A A A A A A A A A A A A A A A	B 2 3 M A 4 1 5	B 2 3 M A 4 1 5 M A
1/4" NPTF	811C-PM- xxyzz -142	821C-PM- xxyzz -142	825C-PM- xxyzz -542	825C-PM- xxyzz -642	825C-PM- xxyzz -842
3/8" NPTF	811C-PM- xxyzz -143	821C-PM- xxyzz -143	825C-PM- xxyzz -543	825C-PM- xxyzz -643	825C-PM- xxyzz -843

SOLENOID C	PERATOR ➤
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XX	Voltage	Y	Manual operator
11	120/60, 110/50	1	Non-locking
12	240/60, 220/50	2	Locking
22	24/60, 24/50		
59	24 VDC (2.5 W)		
87	24 VDC (17.1 W)		
61	24 VDC (8.5 W)		

^{*} Other options available, see page 357.

MODIFICATIONS				
MOD. N°	DESCRIPTION	MODEL AVAILABILITY		
0387	Indicator light 24 VDC			
0295	Indicator light 120 V/60/50	Single & double solenoid		
0296	Indicator light 240 V/60/50			

TO ORDER - Add the appropriate modification number after the valve number; EXAMPLE: 811C-PM-111DA-142 MOD 0295

MANIFOLD END PLATE KITS (NPTF)*				
INT. PILOT - PART N°.	EXT. PILOT - PART N°.	MODELS USED WITH		
M-08002-01-01	M-08002-02-01	Com. conduit models, stacks of 1 thru 16 valves		
M-00007-01-01	M-00007-02-01	Com. conduit models, stacks of 17 or more valves		

^{*} Add letter ${\bf P}$ at end of part N° . for BSPP threads; **EXAMPLE**: M-08002-01-01 ${\bf P}$ Note: (1) end plate kit required per stack.

OPTIONS

811C-PM-111DA-<u>1</u>42

- - For 2 position dual pressure : replace by 2.

825C-PM-111DA-<u>8</u>42

- - For 3 position dual pressure, pressure center : replace by 7.







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, ΔP=1bar): 1/4": (1.4 C_V), 3/8": (1.4 C_V)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range: -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush: 14.8 VA Holding: 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize : 8 ms De-energize : 10 ms

120/60 Energize : 5-11 ms De-energize : 9-16 ms

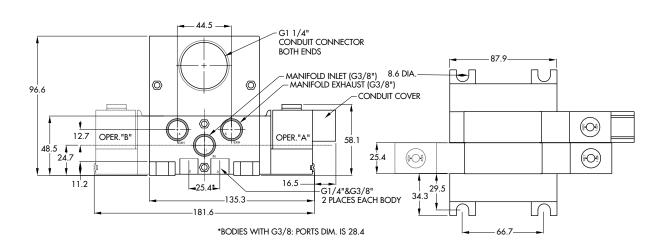
Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

• Inlet isolator: N-08001 • Exhaust isolator (x2): N-08002.

Options : • BSPP threads. • Dual inlet block: M-00014.

DIMENSIONS





Function	Port size	Flow (Max)	Manifold mounting	Series
5/2 - 5/3	1/4" - 3/8"	1.4 C _v	stacking body with 3 common ports with C. C. & integral exh. F. C.	

- 1. Balanced spool, immune to variations of pressure.
- 2. Short stroke with high flow.
- 3. The piston (booster) provides maximum shifting forces.
- 4. Powerful return force thanks to the combination of mechanical and air springs.
- 5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 6. Wiping effect eliminates sticking.
- 7. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



100

35

200

55

56

58

59

45

700

900

82

6300

6500

6600

1300

800

ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

18.00 T	

Electrical connection

Common conduit

DA

HOW	TO 1	ORD	ER

Port size	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
	A 3 2 B 5 V V V V V V V V V V V V V V V V V V	$ \begin{array}{c c} A & 3 & 2 & B \\ \hline $	B 2 3 A A A A A A A A A A A A A A A A A A	B 2 3 M A 4 1 5	B 2 3 A A A A A A A A A A A A A A A A A A
1/4" NPTF	811C-PM- xxyzz -162	821C-PM- xxyzz -162	825C-PM- xxyzz -562	825C-PM- xxyzz -662	825C-PM- xxyzz -862
3/8" NPTF	811C-PM- xxyzz -163	821C-PM- xxyzz -163	825C-PM- xxyzz -563	825C-PM- xxyzz -663	825C-PM- xxyzz -863

Manual operator

Non-locking

Locking

SOLENOID	OPERATOR	>

XX	Voltage
11	120/60, 110/50
12	240/60, 220/50
22	24/60, 24/50
59	24 VDC (2.5 W)
87	24 VDC (17.1 W)
61	24 VDC (8.5 W)
	·

Other options available, see page 357.

MODIFICATIONS				
MOD. N°	DESCRIPTION	MODEL AVAILABILITY		
0387	Indicator light 24 VDC			
0295	Indicator light 120 V/60/50	Single & double solenoid		
0296	Indicator light 240 V/60/50			

TO ORDER - Add the appropriate modification number after the valve number; EXAMPLE: 811C-PM-111DA-162 MOD 0295

MANIFOLD END PLATE KITS (NPTF)*				
INT. PILOT - PART N°.	EXT. PILOT - PART N°.	MODELS USED WITH		
M-08002-01-01 M-08002-02-01		Com. conduit models, stacks of 1 thru 16 valves		
M-00007-01-01 M-00007-02-01		Com. conduit models, stacks of 17 or more valves		

^{*} Add letter ${\bf P}$ at end of part ${\bf N}^\circ$. for BSPP threads; **EXAMPLE**: M-08002-01-01 ${\bf P}$ Note: (1) end plate kit required per stack.

OPTIONS

811C-PM-111DA-<u>1</u>62

- - For 2 position dual pressure : replace by 2.

825C-PM-111DA-<u>8</u>62

- For 3 position dual pressure, pressure center: replace by 7.







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 20-150 PSI double operator: 10-150 PSI

External pilot : vacuum to 200 PSI

Pilot pressure: Single operator and 3 positions: 20-150 PSI Double operator: 10-150 PSI

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, ΔP=1bar): 1/4": (1.4 C_V), 3/8": (1.4 C_V)

Coil: General purpose - class A wires - Continuous duty - Encapsulated

Voltage range: -15% to +10% of nominal voltage

Protection: Consult factory

Power: ~ Inrush: 14.8 VA Holding: 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize: 8 ms De-energize: 10 ms

120/60 Energize : 5-11 ms De-energize : 9-16 ms

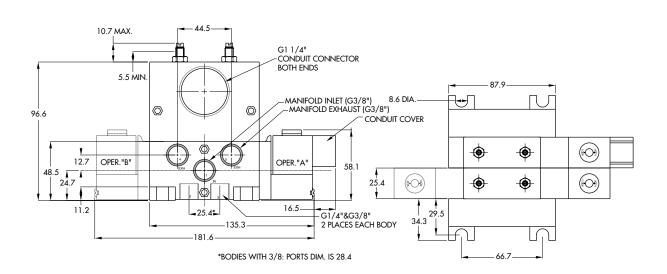
Spare parts : • Solenoid operator (power \geq 4 W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

• Pilot valve: PME-XXYZZ, including seal 16337. • Mounting screw kit for pilot: N-08003.

• Inlet isolator : N-08001 • Exhaust isolator (x2) : N-08002.

Options : • BSPP threads. • Dual inlet block: M-00014.

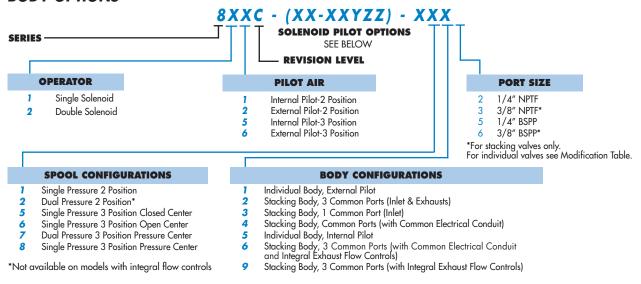
DIMENSIONS



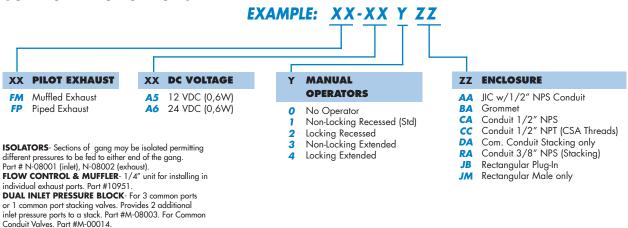


HOW TO ORDER

BODY OPTIONS



SOLENOID PILOT OPTIONS



ACCESSORIES

MAI			
INT. PILOT	INT. PILOT EXT. PILOT		
PART NO.	PART NO.	MODELS USED WITH	
M-08001-01-01 M-08002-01-01 M-00005-01-01 M-00007-01-01	M-08001-02-01 M-08002-02-01 M-00005-02-01 M-00007-02-01	3 com. port or 1 com. port models, stacks Com. conduit models, stacks of 1 thru 16 3 com. port or 1 com. port models, stacks valves. Com. conduit models, stacks of 17 or mor *Add letter P at end of part number for EXAMPLE: M-08001-01-01P	valves. s of 17 or more re valves.

MODIFICATIONS

MOD. NO.	DESCRIPTION	MODEL AVAILABILITY
0250	3 /8" Inlot & Cylindor Ports	Individual Valves

Codification table for voltages / Manual operator / Electrical connection / Wire length

VALVE CODE > $-\frac{XX}{1} \frac{Y}{2} \frac{ZZ}{3} \frac{(-VV)}{4}$

OPTIONS AVAILABLE FOR	OPTIONS AVAILABLE FOR
- valves type 100 Series - pilot valves "CNOMO"	- valves type 200 Series
- Pilot operated valves with pilots type 100 Series Series : 55 - 56 - 700 - 800 - 900 - 6300 - 6500 - 6600 - 1300 - ISO 1 - ISO 2 - ISO 3. - MAC 125 - MAC 250 - MAC 500	- pilot operated valves with pilots type 200 Series Series: 200 - 57 - 58 - 59.
- Pilot operated valves with pilots "CNOMO" Series : ISO1 - ISO2 - ISO3	



Used on valve series: 100, 55, 56, 700, 800, 900, 6300, 6500, 6600, 1300, MVA1C, Used on valve series: 200, 57, 58, 59. MVA2B, MVA3B, MAC125, MAC250, MAC500. 1. VOLTAGE (200 Serie type coil) 1. VOLTAGE (100 Serie type coil) - XX Y ZZ VOLTAGE VOLTAGE - XX Y ZZ 120/60, 110/50, 24 VDC (6 W) 11 120/60, 110/50 11 12 240/60, 220/50 12 240/60, 220/50 13 100/60, 100/50 13 100/60, 100/50 200/60, 200/50 14 15 200/60, 200 /50 16 10/60 20 6/60 20 21 12/60 6/60 21 12/50, 12/60 22 24/60, 24/50 22 24/60, 24/50 23 32/60, 32/50 23 32/60, 32/50 24 48/60, 42/50 24 48/60, 42/50 25 240/50 26* 380/50, 440/50, 440/60, 480/60 26 480/60, 440/50 27 29 220/60 127/60 34 127/50, 120/50 28 415/50 35 48/50 29 220/60 36 16/60 30 380/50 В1 24/50 31 550/60, 550/50 **50** 24 VDC (6 W) **32** 120/60, 110/50 51 33 600/60 24 VDC (4 W) 34 54 12 VDC (4 W) 127/50 **55** 12 VDC (6 W) **35** 48/50 *57* 12 VDC (2.5 W) **50** 24 VDC (6 W) **59** 51 24 VDC (2.5 W) 24 VDC (4.5 W) 60 12 VDC (8.5 W) **52** 24 VDC (2.5 W) 61 24 VDC (8.5 W) **53** 24 VDC (1.0 W) 64 **55** 6 VDC (6 W) 12 VDC (6 W) 65 32 VDC (7 W) *57* 12 VDC (2.5 W) 66 48 VDC (5.8 W) **58** 48 VDC (2.5 W) 67 64 VDC (7.5 W) 60 12 VDC (9.5 W) 68 61 120 VDC (6.4 W) 24 VDC (8.5 W) 220 VDC (8.7 W), 250 VDC (11.2 W) 69* 64 6 VDC (8.5 W) *75* 90 VDC (8.8 W) 65 32 VDC (10 W) 100 VDC (6.9 W) 48 VDC (11.5 W) 76 66 84* 125 VDC (10.9 W) **67** 64 VDC (10.5 W) 87* 24 VDC (17.1 W) 68 120 VDC (12.3 W) 88* 12 VDC (17.4 W) 69 250 VDC (9.2 W) 71 89 36 VDC (18.8 W) 8 VDC (8.2 W) **72** 90 28 VDC (8.2 W) 24 VDC (12 W) 91* 6 VDC (10.6 W) *73* 198 VDC (10 W) 92 **74** 190 VDC (6.5 W) 72 VDC (11.3 W) 94 3 VDC (7 W) *75* 90 VDC (11.3 W) 95 38 VDC (6.4 W) **76** 100 VDC (9 W) 220 VDC (10 W), 230 VDC (11.6 W) A1 24 VDC (1 W) *77* 24 VDC (24 W) A2 78* 12 VDC (1 W) 9 VDC (1 W) 80 55 VDC (10.6 W) MOD. DD01: Protection diode (DC) - MAX. 8.5W **82** 170 VDC (11.1 W) MOD. MOV1: Protection varistor (AC) - MAX. 8.5W 83 15 VDC (8.1 W) * Voltages are CLSF only 84 125 VDC (10 W) 86 36 VDC (11 W) 93* 12 VDC (24 W)

S

2. MANUAL OPERATOR (Common options for 100 & 200 Series type coils)				
- XX Y ZZ	MANUAL OPERATOR			
0	No operator	5*	No Operator with Light	
1	Non-locking recessed	6*	Non-Locking Recessed with Light	
2	Locking recessed	7*	Locking Recessed with Light	
3	Non-locking extended	8*	Non-Locking Extended with Light	
4	Locking extended	9*	Locking Extended with Light	

^{*} Lights used with "AA" electrical connection

3. ELECTRICAL CONNECTION (100 Serie type coil)		;	3. ELECTRICAL CONNECTION (200 Serie type coil)		
X Y ZZ	ELECTRICAL CONNECTION	- XX Y	ZZ	ELECTRICAL CONNECTION	
AA	Wiring box with 1/2" NPS conduit		AA	Wiring box with 1/2" NPS conduit	
BA	Flying leads		BA	Flying leads	
CA	1/2" NPS conduit		CA	1/2" NPS conduit	
СС	1/2" NPT conduit		CC	1/2" NPT conduit	
FA	Military type 2 PIN		EA	Explosion proof (200 Series)	
GA	Military type 3 PIN		EA	Explosion proof (57, 58 & 59 Series)	
НА	AA with ground wire		FA	Military type 2 PIN	
JA*	Square connector		GA	Military type 3 PIN	
JB	Rectangular connector		HA	AA with ground wire	
JC*	Square connector with light		JA*	Square connector	
JD	Rectangular connector with light		JC	Square connector with light	
JE	Square connector on top		JJ	Square connector, male only	
	(ISO2, ISO3)		NA	CA with ground wire	
JF	Rectangular connector on top		NC	CC with ground wire	
	(ISO1, ISO2, ISO3)				
JG	JE with light				
JH	JF with light				
JJ	Square connector, male only				
JM	Rectangular connector, male only				
MA	Electrical common conduit				
	(100 Series-Manifold/900 Series)				
МВ	Electrical common conduit				
	(100 Series-Stacking/700 Series)				
NA	CA with ground wire				
NC	CC with ground wire				
RA	3/8" NPS conduit				
Not to be used v	vith 100, 800 and 900 Series manifold mounting				



	4. COIL WIRE LENGTH (Common options for 100 & 200 Serie type coils)
- XX Y ZZ (-VV)	WIRE LENGTH
AA	18"
AB	24"
AD	36"
AE	48"
AF	72"
AG	6"
AR	12"
AU	120"
BA	60"
ВВ	144"
Series 6000 : wire length, from	the base
MOD L024	24"
MOD L036	36"
MOD L048	48"
MOD L060	60"
MOD L072	72"
MOD L120	120"