

# Direct solenoid and solenoid pilot operated valves

## Individual mounting

Sub-base non "plug-in"	Sub-base "plug-in"
---------------------------	-----------------------

Series

33

34

## Manifold mounting

Sub-base non "plug-in"	Sub-base "plug-in"
---------------------------	-----------------------

36

32

37

38

52

67

69

44

46

42

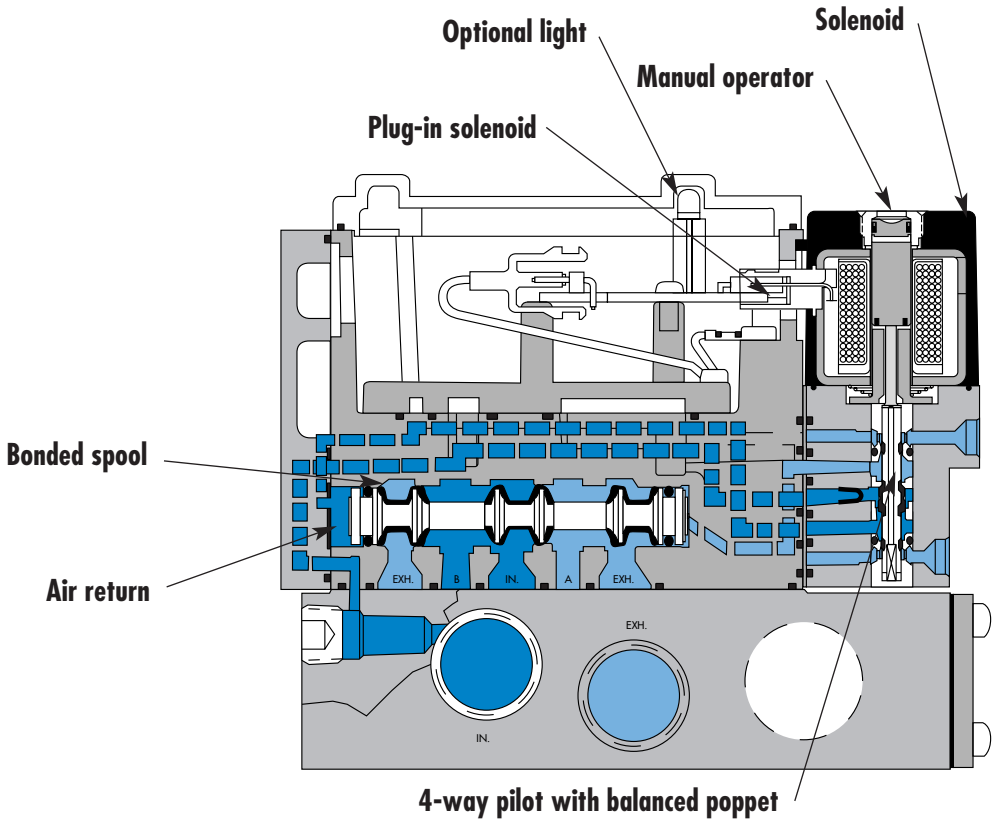
47

48P

48

400

92



## SERIES FEATURES

- Patented MACSOLENOID® for fastest possible response times and virtually burn-out proof AC solenoid operation.
- Optional low watt DC solenoids.
- Optional memory spring.
- Plug-in design of valves and bases for ease of maintenance.
- 2 position or 3 position valve configurations.

93

ISO 01

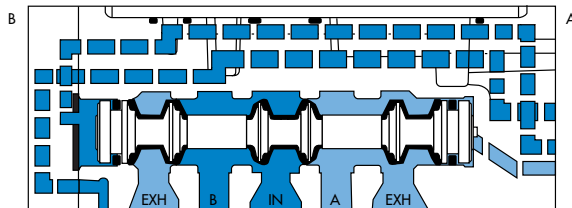
ISO 02

ISO 1

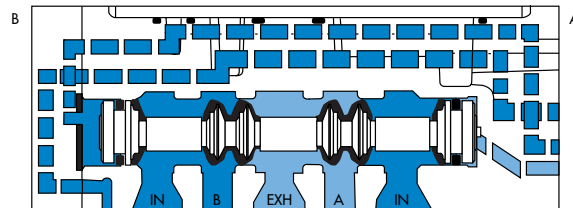
ISO 2

ISO 3

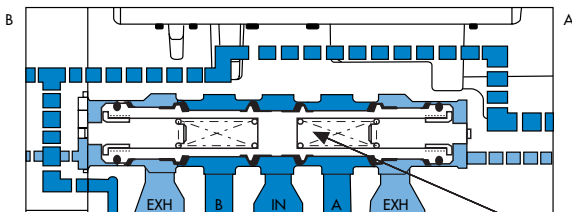
## SPOOL CONFIGURATIONS



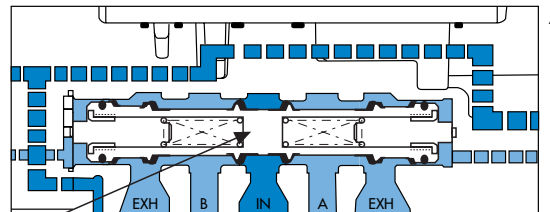
2 POSITION SINGLE PRESSURE  
SHOWN WITH "B" OPERATOR ENERGIZED



2 POSITION DUAL PRESSURE  
SHOWN WITH "B" OPERATOR ENERGIZED

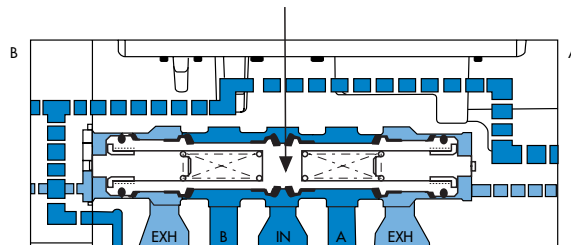


3 POSITION CLOSED CENTER



3 POSITION OPEN CENTER

## SPRING CENTERING

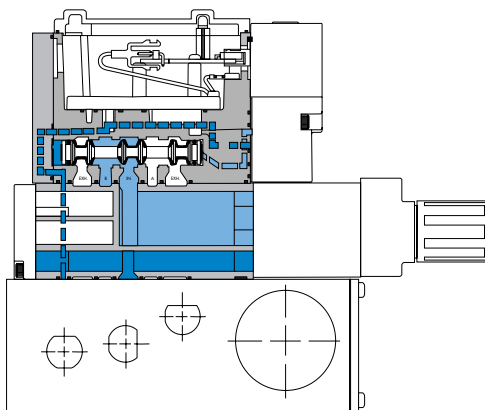


3 POSITION SINGLE PRESSURE, PRESSURE CENTER

## REGULATOR CONFIGURATIONS

### SINGLE REGULATOR - SINGLE PRESSURE

Pressure supplied to the individual or manifold base passes through the regulator. Regulated pressure is supplied to the pressure path of the valve.

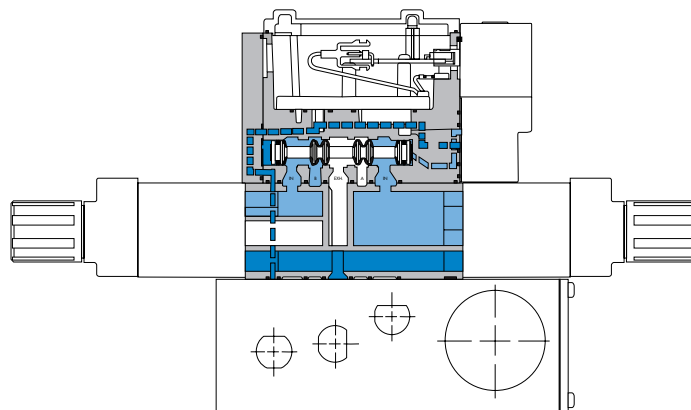


### MANIFOLD WITH REGULATOR - SINGLE PRESSURE

**Note:** For both single and dual pressure, air supply to the pilot system is never regulated.

### DUAL REGULATOR - DUAL PRESSURE

Pressure supplied from each regulator is divided in the block. Regulated pressure from "A" regulator supplies cylinder port "A". Regulated pressure from "B" regulator supplies cylinder port "B". Dual pressure regulators require dual pressure spool in valve.



### MANIFOLD WITH REGULATOR - DUAL PRESSURE

Function	Port size	Flow [Max]	Individual mounting	Series
<b>5/2, 5/3</b>	<b>1/8" - 1/4" - 3/8"</b>	<b>1.2 C<sub>v</sub></b>	Sub-base non "plug-in"	

## OPERATIONAL BENEFITS

1. The 4-way pilot develops maximum shifting forces both ways.
2. Memory spring available.
3. Balanced spool, immune to variations of pressure, also provides high flow.
4. Short stroke with high flow.
5. Bonded seal spool with minimum friction, shifting in a glass-like finished bore.
6. Pilot with balanced poppet, high flow; short and consistent response times.



33

34

36

32

37

38

52

67

69

44

46

42

47

48P

48

400

92

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

## HOW TO ORDER

### SINGLE PRESSURE MODELS

Port size	Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
<b>Valve less base</b>		92B-ABA-000-DM-Dxxx-xxx	92B-BBA-000-DM-Dxxx-xxx	92B-EBA-000-DM-Dxxx-xxx	92B-FBA-000-DM-Dxxx-xxx	92B-GBA-000-DM-Dxxx-xxx
<b>1/8" NPTF</b>	Internal	92B-ABA-AAG-DM-Dxxx-xxx	92B-BBA-AAG-DM-Dxxx-xxx	92B-EBA-AAG-DM-Dxxx-xxx	92B-FBA-AAG-DM-Dxxx-xxx	92B-GBA-AAG-DM-Dxxx-xxx
<b>1/4" NPTF</b>		92B-ABA-BAG-DM-Dxxx-xxx	92B-BBA-BAG-DM-Dxxx-xxx	92B-EBA-BAG-DM-Dxxx-xxx	92B-FBA-BAG-DM-Dxxx-xxx	92B-GBA-BAG-DM-Dxxx-xxx
<b>3/8" NPTF</b>		92B-ABA-CAG-DM-Dxxx-xxx	92B-BBA-CAG-DM-Dxxx-xxx	92B-EBA-CAG-DM-Dxxx-xxx	92B-FBA-CAG-DM-Dxxx-xxx	92B-GBA-CAG-DM-Dxxx-xxx
<b>1/8" NPTF</b>	External	92B-ABA-AAH-DM-Dxxx-xxx	92B-BBA-AAH-DM-Dxxx-xxx	92B-EBA-AAH-DM-Dxxx-xxx	92B-FBA-AAH-DM-Dxxx-xxx	92B-GBA-AAH-DM-Dxxx-xxx
<b>1/4" NPTF</b>		92B-ABA-BAH-DM-Dxxx-xxx	92B-BBA-BAH-DM-Dxxx-xxx	92B-EBA-BAH-DM-Dxxx-xxx	92B-FBA-BAH-DM-Dxxx-xxx	92B-GBA-BAH-DM-Dxxx-xxx
<b>3/8" NPTF</b>		92B-ABA-CAH-DM-Dxxx-xxx	92B-BBA-CAH-DM-Dxxx-xxx	92B-EBA-CAH-DM-Dxxx-xxx	92B-FBA-CAH-DM-Dxxx-xxx	92B-GBA-CAH-DM-Dxxx-xxx

### DUAL PRESSURE MODELS (REQUIRE SANDWICH REGULATOR – SEE "REGULATORS" SECTION)

Port size	Pilot air	5/2 Single operator	5/2 Double operator
<b>Valve less base</b>		92B-CBA-000-DM-Dxxx-xxx	92B-DBA-000-DM-Dxxx-xxx
<b>1/8" NPTF</b>	Internal	92B-CBA-AAG-DM-Dxxx-xxx	92B-DBA-AAG-DM-Dxxx-xxx
<b>1/4" NPTF</b>		92B-CBA-BAG-DM-Dxxx-xxx	92B-DBA-BAG-DM-Dxxx-xxx
<b>3/8" NPTF</b>		92B-CBA-CAG-DM-Dxxx-xxx	92B-DBA-CAG-DM-Dxxx-xxx
<b>1/8" NPTF</b>	External	92B-CBA-AAH-DM-Dxxx-xxx	92B-DBA-AAH-DM-Dxxx-xxx
<b>1/4" NPTF</b>		92B-CBA-BAH-DM-Dxxx-xxx	92B-DBA-BAH-DM-Dxxx-xxx
<b>3/8" NPTF</b>		92B-CBA-CAH-DM-Dxxx-xxx	92B-DBA-CAH-DM-Dxxx-xxx

### SOLENOID OPERATOR ►

DM-D **xxx-xxx\***

Above models are shown with side ports.

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
JA	110 /50, 120/60 (2.9W)	A	18" (Flying leads)	1	Non-locking recessed	BM	Flying leads
JB	220/50, 240/60 (2.9W)	B	24" (Flying leads)	2	Locking recessed	BN	Flying leads with diode
JC	24/60 (2.9W)	J	Connector			BP	Flying leads with M.O.V.
FB	24 VDC (1.8W)					BG	Flying leads with ground
DA	24 VDC (5.4W)					JB	Rectangular connector
DF	24 VDC (12.7W)					JD	Rectangular connector with light
						KA	Square connector

\* Other options available, see page 309.

Other options available for the 92 series valves, see page 155.

# TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Internal pilot : 20 to 120 PSI      3 position : 35 to 120 PSI External pilot : vacuum to 120 PSI      3 position : 35 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)		
Flow :	1/8": (1.0 C <sub>v</sub> ) – 1/4": (1.1 C <sub>v</sub> ) – 3/8": (1.2 C <sub>v</sub> )		
Coil :	Class A continuous duty, #22 AWG x 18 lead wire		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	Consult factory		
Power :	~Inrush 7.6 VA      Holding : 4.8 VA = 1.8 to 12.7 W		
Response times :	24V=5.4W      Energize : 8 ms      De-energize : 7 ms 120/60      Energize : 7-13 ms      De-energize : 12-20 ms		

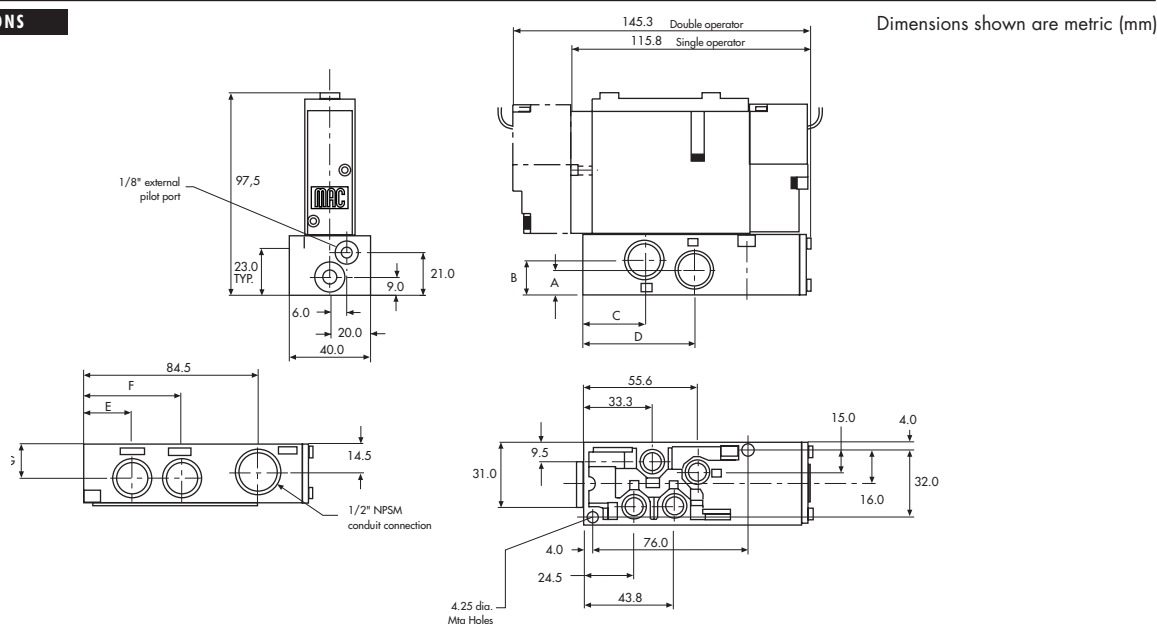
Options :

- BSPP threads • Sandwich flow control: FC92B-CA

Spare parts :

- Pilot valve DM-Dxxx-xxx • Valve blanking plate: M-92002
- Pressure seal between valve and base : 16543. • Mounting screws valve to base (X2) : 35050.

# DIMENSIONS



DIM.	A	B	C	D	E	F	G
1/8"	12.5	18.0	31.0	54.0	23.5	46.5	18.0
1/4"	12.5	18.0	31.0	54.0	23.5	46.5	18.0
3/8"	12.0	17.0	30.0	54.0	23.5	47.5	17.0

Function	Port size	Flow [Max]	Individual mounting	Series
<b>5/2, 5/3</b>	<b>1/8" - 1/4" - 3/8"</b>	<b>1.2 C<sub>v</sub></b>	Sub-base "plug-in"	

## OPERATIONAL BENEFITS




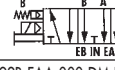

1. The 4-way pilot develops maximum shifting forces both ways.
2. Memory spring available.
3. Balanced spool, immune to variations of pressure, also provides high flow.
4. Short stroke with high flow.
5. Bonded seal spool with minimum friction, shifting in a glass-like finished bore.
6. Pilot with balanced poppet, high flow; short and consistent response times.





33  
34  
36  
32  
37  
38  
52  
67  
69  
44  
46  
42  
47  
48P  
48

## HOW TO ORDER

### SINGLE PRESSURE MODELS

Port size	Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
						
<b>Valve less base</b>		92B-AAA-000-DM-DxxP-xxx	92B-BAA-000-DM-DxxP-xxx	92B-EAA-000-DM-DxxP-xxx	92B-FAA-000-DM-DxxP-xxx	92B-GAA-000-DM-DxxP-xxx
<b>1/8"</b>	Internal	92B-AAA-AAA-DM-DxxP-xxx	92B-BAA-AAA-DM-DxxP-xxx	92B-EAA-AAA-DM-DxxP-xxx	92B-FAA-AAA-DM-DxxP-xxx	92B-GAA-AAA-DM-DxxP-xxx
<b>1/4"</b>		92B-AAA-BAA-DM-DxxP-xxx	92B-BAA-BAA-DM-DxxP-xxx	92B-EAA-BAA-DM-DxxP-xxx	92B-FAA-BAA-DM-DxxP-xxx	92B-GAA-BAA-DM-DxxP-xxx
<b>3/8"</b>		92B-AAA-CAA-DM-DxxP-xxx	92B-BAA-CAA-DM-DxxP-xxx	92B-EAA-CAA-DM-DxxP-xxx	92B-FAA-CAA-DM-DxxP-xxx	92B-GAA-CAA-DM-DxxP-xxx
<b>1/8"</b>	External	92B-AAA-AAD-DM-DxxP-xxx	92B-BAA-AAD-DM-DxxP-xxx	92B-EAA-AAD-DM-DxxP-xxx	92B-FAA-AAD-DM-DxxP-xxx	92B-GAA-AAD-DM-DxxP-xxx
<b>1/4"</b>		92B-AAA-BAD-DM-DxxP-xxx	92B-BAA-BAD-DM-DxxP-xxx	92B-EAA-BAD-DM-DxxP-xxx	92B-FAA-BAD-DM-DxxP-xxx	92B-GAA-BAD-DM-DxxP-xxx
<b>3/8"</b>		92B-AAA-CAD-DM-DxxP-xxx	92B-BAA-CAD-DM-DxxP-xxx	92B-EAA-CAD-DM-DxxP-xxx	92B-FAA-CAD-DM-DxxP-xxx	92B-GAA-CAD-DM-DxxP-xxx

### DUAL PRESSURE MODELS (REQUIRE SANDWICH REGULATOR – SEE "REGULATORS" SECTION)

Port size	Pilot air	5/2 Single operator	5/2 Double operator
			
<b>Valve less base</b>		92B-CAA-000-DM-DxxP-xxx	92B-DAA-000-DM-DxxP-xxx
<b>1/8"</b>	Internal	92B-CAA-AAA-DM-DxxP-xxx	92B-DAA-AAA-DM-DxxP-xxx
<b>1/4"</b>		92B-CAA-BAA-DM-DxxP-xxx	92B-DAA-BAA-DM-DxxP-xxx
<b>3/8"</b>		92B-CAA-CAA-DM-DxxP-xxx	92B-DAA-CAA-DM-DxxP-xxx
<b>1/8"</b>	External	92B-CAA-AAD-DM-DxxP-xxx	92B-DAA-AAD-DM-DxxP-xxx
<b>1/4"</b>		92B-CAA-BAD-DM-DxxP-xxx	92B-DAA-BAD-DM-DxxP-xxx
<b>3/8"</b>		92B-CAA-CAD-DM-DxxP-xxx	92B-DAA-CAD-DM-DxxP-xxx

400

92

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

### SOLENOID OPERATOR ➤

DM-D **xx** P-**xxx**\*

Above models are shown with side ports.

XX Voltage	X Manual operator	XX Electrical connection
<b>JA</b> 110 / 50, 120 / 60 (2.9W)	<b>1</b> Non-locking recessed	<b>DM</b> Plug-in
<b>JB</b> 220 / 50, 240 / 60 (2.9W)	<b>2</b> Locking recessed	<b>DN</b> Plug-in with diode
<b>JC</b> 24 / 60 (2.9W)		<b>DP</b> Plug-in with M.O.V.
<b>FB</b> 24 VDC (1.8W)		<b>DG</b> Plug-in with ground
<b>DA</b> 24 VDC (5.4W)		<b>DJ</b> Plug-in with M.O.V. & ground
<b>DF</b> 24 VDC (12.7W)		<b>DH</b> Plug-in with diode & ground

\* Other options available, see page 309.

Note: Ground required for 30 Volts or higher.

Other options available for the 92 series valves, see page 156.

# TECHNICAL DATA

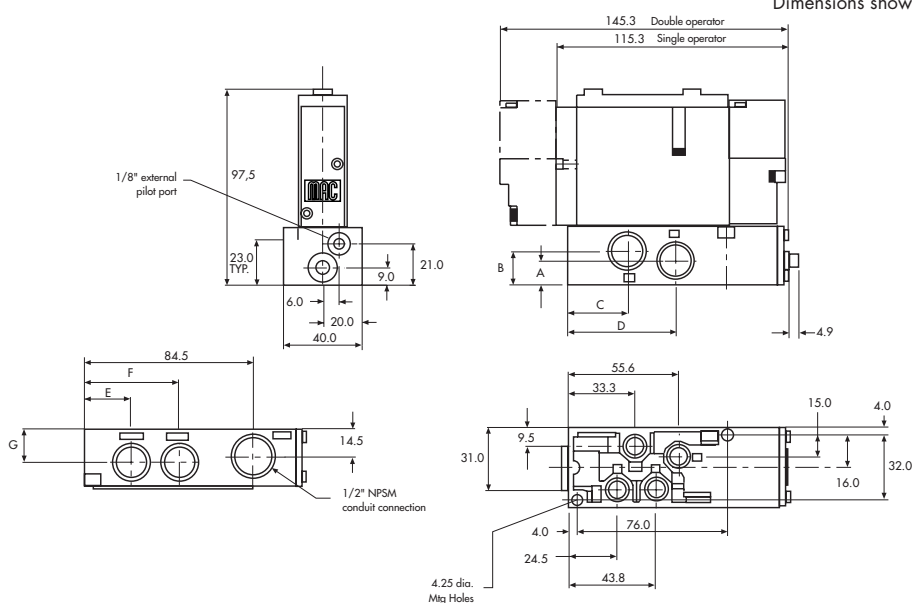
Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Internal pilot : 20 to 120 PSI      3 position : 35 to 120 PSI External pilot : vacuum to 120 PSI      3 position : 35 to 120 PSI		
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)		
Filtration :	40 µ		
Temperature range :	0°F to 120°F (-18°C to +50°C)		
Flow :	1/8": (1.0 C <sub>v</sub> ) – 1/4": (1.1 C <sub>v</sub> ) – 3/8": (1.2 C <sub>v</sub> )		
Coil :	Class A continuous duty, #22 AWG x 18 lead wire		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	Consult factory		
Power :	~Inrush 7.6 VA      Holding : 4.8 VA = 1.8 to 12.7 W		
Response times :	24V=5.4W      Energize : 8 ms      De-energize : 7 ms 120/60      Energize : 7-13 ms      De-energize : 12-20 ms		

Options : • BSPP threads • Sandwich flow control: FC92B-AA (sgl. operator), FC92B-BA (dbl. operator)

Spare parts : • Pilot valve DM-DxxP-xxx • Valve blanking plate: M-92002  
• Pressure seal between valve and base : 16543. • Mounting screws valve to base (X2) : 35050.

# DIMENSIONS

Dimensions shown are metric (mm)



DIM.	A	B	C	D	E	F	G
1/8"	12.5	18.0	31.0	54.0	23.5	46.5	18.0
1/4"	12.5	18.0	31.0	54.0	23.5	46.5	18.0
3/8"	12.0	17.0	30.0	54.0	23.5	47.5	17.0

Function	Port size	Flow [Max]	Manifold mounting	Series
<b>5/2, 5/3</b>	<b>1/4" - 3/8"</b>	<b>1.2 C<sub>v</sub></b>	Sub-base non "plug-in"	

## OPERATIONAL BENEFITS

1. The 4-way pilot develops maximum shifting forces both ways.
2. Memory spring available.
3. Balanced spool, immune to variations of pressure, also provides high flow.
4. Short stroke with high flow.
5. Bonded seal spool with minimum friction, shifting in a glass-like finished bore.
6. Pilot with balanced poppet, high flow; short and consistent response times.
7. Wiping effect eliminates sticking.
8. Long service life.

## HOW TO ORDER

### SINGLE PRESSURE MODELS

Port size	Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
<b>Valve less base</b>		92B-ABA-000-DM-DXXX-XXX	92B-BBA-000-DM-DXXX-XXX	92B-EBA-000-DM-DXXX-XXX	92B-FBA-000-DM-DXXX-XXX	92B-GBA-000-DM-DXXX-XXX
<b>1/4" NPTF</b>	Internal	92B-ABA-BJG-DM-DXXX-XXX	92B-BBA-BJG-DM-DXXX-XXX	92B-EBA-BJG-DM-DXXX-XXX	92B-FBA-BJG-DM-DXXX-XXX	92B-GBA-BJG-DM-DXXX-XXX
<b>3/8" NPTF</b>		92B-ABA-CJG-DM-DXXX-XXX	92B-BBA-CJG-DM-DXXX-XXX	92B-EBA-CJG-DM-DXXX-XXX	92B-FBA-CJG-DM-DXXX-XXX	92B-GBA-CJG-DM-DXXX-XXX

### DUAL PRESSURE MODELS (REQUIRE SANDWICH REGULATOR – SEE "REGULATORS" SECTION)

Port size	Pilot air	5/2 Single operator	5/2 Double operator
<b>Valve less base</b>		92B-CBA-000-DM-DXXX-XXX	92B-DBA-000-DM-DXXX-XXX
<b>1/4" NPTF</b>	Internal	92B-CBA-BJG-DM-DXXX-XXX	92B-DBA-BJG-DM-DXXX-XXX
<b>3/8" NPTF</b>		92B-CBA-CJG-DM-DXXX-XXX	92B-DBA-CJG-DM-DXXX-XXX

Above models are shown with side ports.

### SOLENOID OPERATOR ➤

DM-D **XXX-XXX\***

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

\* Other options available, see page 309.

End plate kit required (port size 3/8"): M-92004-01-01 (internal pilot)  
M-92004-02-01 (External pilot)

Other options available for the 92 series valves, see page 155.



33

34

36

32

37

38

52

67

69

44

46

42

47

48P

48

400

92

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

# TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Internal pilot : 20 to 120 PSI      3 position : 35 to 120 PSI External pilot : vacuum to 120 PSI      3 position : 35 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)		
Flow :	1/4": (1.1 C <sub>v</sub> ) - 3/8": (1.2 C <sub>v</sub> )		
Coil :	Class A continuous duty, #22 AWG x 18 leads		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	Consult factory		
Power :	~Inrush 7.6 VA      Holding : 4.8 VA = 1.8 to 12.7 W		
Response times :	24V=5.4W      Energize : 8 ms      De-energize : 7 ms 120/60      Energize : 7-13 ms      De-energize : 12-20 ms		

Options :

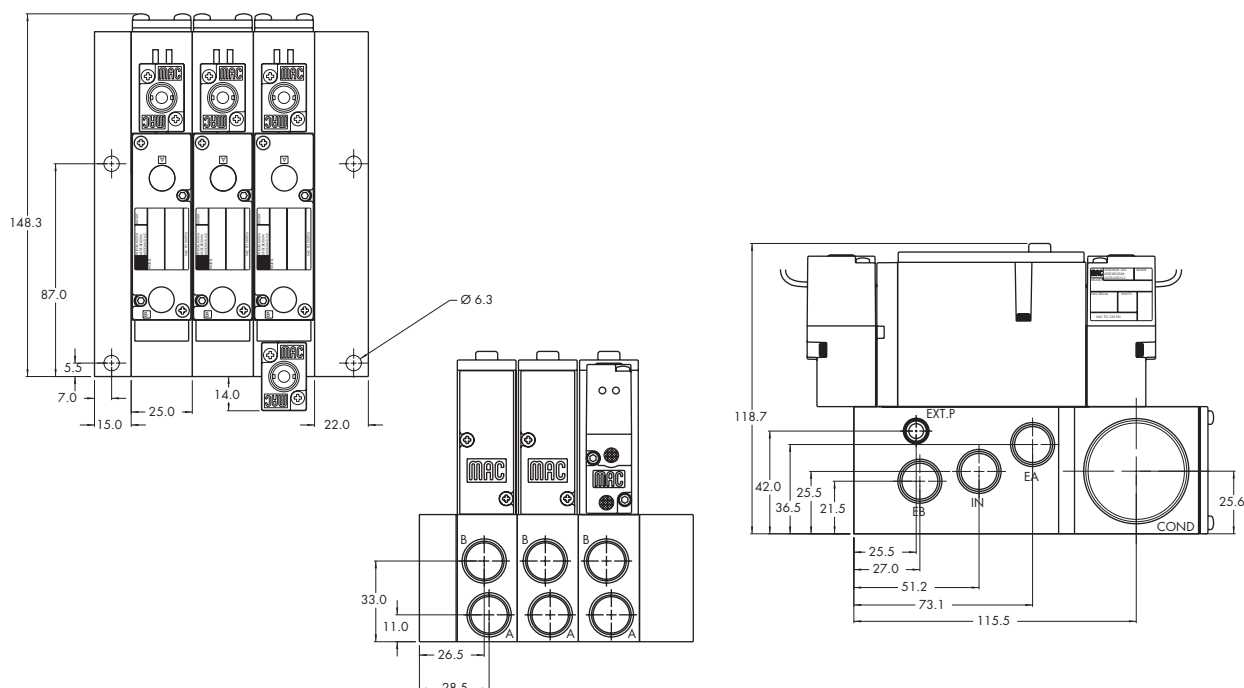
- BSPP threads • Sandwich flow controls: FC92B-CA

Spare parts :

- Pilot valve: DM-Dxxx-xxx • Valve blanking plate: M-92002 • Pressure seal, valve to base 16543
- Inlet/Exhaust isolator disc: N-92018.

# DIMENSIONS

Dimensions shown are metric (mm)





Function	Port size	Flow [Max]	Manifold mounting	Series
<b>5/2, 5/3</b>	<b>1/4" - 3/8"</b>	<b>1.2 C<sub>v</sub></b>	Sub-base "plug-in"	

## OPERATIONAL BENEFITS

1. The 4-way pilot develops maximum shifting forces both ways.
2. Memory spring available.
3. Balanced spool, immune to variations of pressure, also provides high flow.
4. Short stroke with high flow.
5. Bonded seal spool with minimum friction, shifting in a glass-like finished bore.
6. Pilot with balanced poppet, high flow; short and consistent response times.
7. Wiping effect eliminates sticking.
8. Long service life.

## HOW TO ORDER

### SINGLE PRESSURE MODELS

Port size	Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	5/3 Pressure center
<b>Valve less base</b>		92B-AAA-000-DM-DxxP-xxx	92B-BAA-000-DM-DxxP-xxx	92B-EAA-000-DM-DxxP-xxx	92B-FAA-000-DM-DxxP-xxx	92B-GAA-000-DM-DxxP-xxx
<b>1/4" NPTF</b>	Internal	92B-AAA-BJA-DM-DxxP-xxx	92B-BAA-BJA-DM-DxxP-xxx	92B-EAA-BJA-DM-DxxP-xxx	92B-FAA-BJA-DM-DxxP-xxx	92B-GAA-BJA-DM-DxxP-xxx
<b>3/8" NPTF</b>		92B-AAA-CJA-DM-DxxP-xxx	92B-BAA-CJA-DM-DxxP-xxx	92B-EAA-CJA-DM-DxxP-xxx	92B-FAA-CJA-DM-DxxP-xxx	92B-GAA-CJA-DM-DxxP-xxx

### DUAL PRESSURE MODELS (REQUIRE SANDWICH REGULATOR – SEE "REGULATORS" SECTION)

Port size	Pilot air	5/2 Single operator	5/2 Double operator
<b>Valve less base</b>		92B-CAA-000-DM-DxxP-xxx	92B-DAA-000-DM-DxxP-xxx
<b>1/4" NPTF</b>	Internal	92B-CAA-BJA-DM-DxxP-xxx	92B-DAA-BJA-DM-DxxP-xxx
<b>3/8" NPTF</b>		92B-CAA-CJA-DM-DxxP-xxx	92B-DAA-CJA-DM-DxxP-xxx

### SOLENOID OPERATOR ➤

DM-D **XX** P-**XXX**\*

Above models are shown with side ports and no lights.

XX	Voltage	X	Manual operator	XX	Electrical connection
JA	110 / 50, 120 / 60 (2.9W)	1	Non-locking recessed	DM	Plug-in
JB	220 / 50, 240 / 60 (2.9W)	2	Locking recessed	DN	Plug-in with diode
JC	24 / 60 (2.9W)			DP	Plug-in with M.O.V.
FB	24 VDC (1.8W)			DG	Plug-in with ground
DA	24 VDC (5.4W)			DJ	Plug-in with M.O.V. & ground
DF	24 VDC (12.7W)			DH	Plug-in with diode & ground

\* Other options available, see page 309.

Note: Ground required for 30 Volts or higher.

End plate kit required (port size 3/8"): M-92004-01-01 (internal pilot)

M-92004-02-01 (external pilot)

Other options available for the 92 series valves, see page 156.



33

34

36

32

37

38

52

67

69

44

46

42

47

48P

48

400

92

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

# TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Internal pilot : 20 to 120 PSI      3 position : 35 to 120 PSI External pilot : vacuum to 120 PSI      3 position : 35 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)		
Flow :	1/4": (1.1 C <sub>v</sub> ) - 3/8": (1.2 C <sub>v</sub> )		
Coil :	Class A continuous duty, #22 AWG x 12 base leads		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	Consult factory		
Power :	~Inrush 7.6 VA      Holding : 4.8 VA = 1.8 to 12.7 W		
Response times :	24V=5.4W      Energize : 8 ms      De-energize : 7 ms 120/60      Energize : 7-13 ms      De-energize : 12-20 ms		

Options :

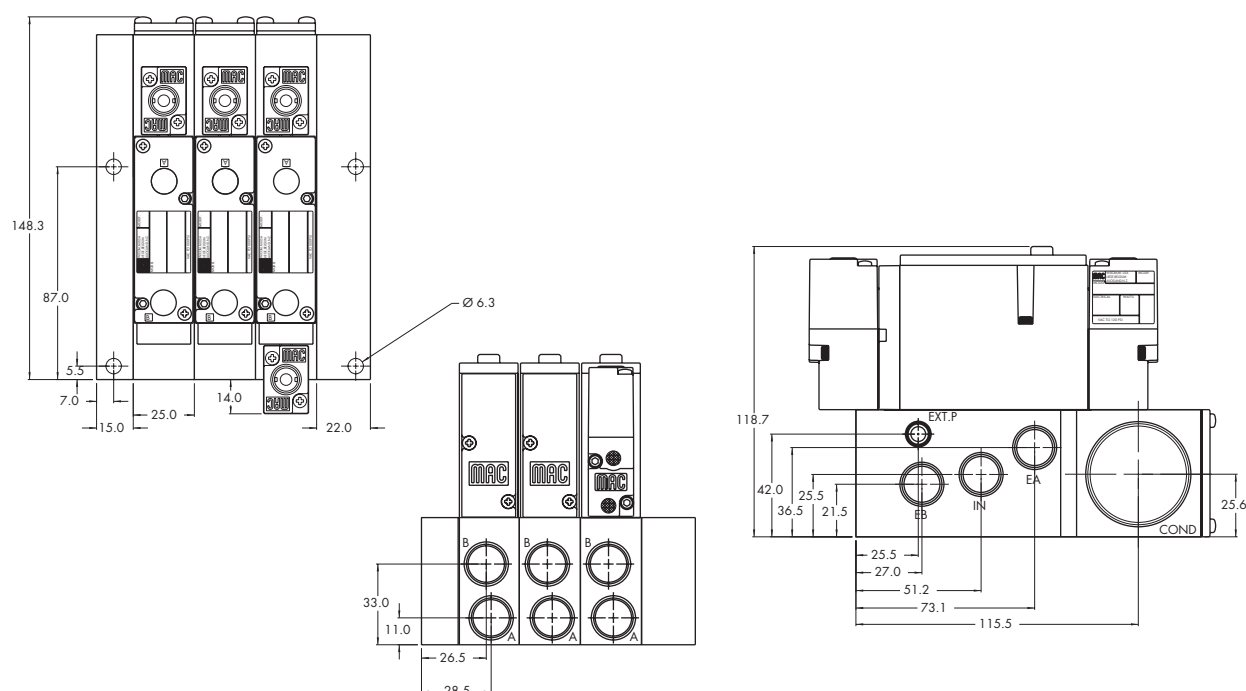
- BSPP threads • Sandwich flow controls: FC92B-AA (sgl. operator), FC92B-BA (dbl. operator)

Spare parts :

- Pilot valve: DM-DxxP-xxx • Valve blanking plate: M-92002 • Pressure seal, valve to base: 16543
- Mounting screws valve to base (x2): 35050 • Inlet/Exhaust isolator disc: N-92018.

# DIMENSIONS

Dimensions shown are metric (mm)



<b>OPTIONS FOR NON PLUG-IN VALVES</b>	<b>33</b>
<b>Valve function</b>	<b>34</b>
92B-HXX-XXX-XX-Dxxx-xxx	<b>36</b>
<ul style="list-style-type: none"> <li><b>H</b> for 3 position dual pressure, pressure center*</li> <li><b>J</b> for 3 position dual pressure, closed center*</li> <li><b>K</b> for 3 position dual pressure, open center*</li> <li><b>L</b> for single operator, single pressure with memory spring</li> <li><b>N</b> for single operator, dual pressure with memory spring*</li> </ul>	<b>32</b>
<b>Pilot exhaust</b>	<b>37</b>
92B-XXB-XXX-XX-Dxxx-xxx	<b>38</b>
<ul style="list-style-type: none"> <li><b>B</b> standard pilot exhaust</li> <li><b>D</b> pilot exhaust to main valve exhaust**</li> </ul>	<b>52</b>
<b>Port configuration :</b>	<b>67</b>
<b>Individual sub-base</b>	<b>69</b>
92B-XXX-XXA-XX-Dxxx-xxx	<b>44</b>
<ul style="list-style-type: none"> <li><b>A</b> side ports</li> <li><b>B</b> bottom ports (1/8" only)</li> <li><b>C</b> side &amp; bottom ports (1/8" only)</li> <li><b>D</b> side inlet &amp; exhaust with bottom cylinder ports (1/8")</li> </ul>	<b>46</b>
<b>Manifold sub-base</b>	<b>42</b>
92B-XXX-XJX-XX-Dxxx-xxx	<b>47</b>
<ul style="list-style-type: none"> <li><b>J</b> side ports</li> <li><b>K</b> bottom ports</li> </ul>	<b>48P</b>
<b>Pilot style :</b>	<b>48</b>
92B-XXX-XXX-DM-Dxxx-xxx	<b>400</b>
<ul style="list-style-type: none"> <li><b>DM</b> pilot exhaust muffled</li> <li><b>DP</b> pilot exhaust piped (#10-32)</li> <li><b>DU</b> pilot exhaust to main exhaust</li> </ul>	<b>92</b>
<b>Base only :</b>	
92B-000-XXX (i.e. 92B-000-AAG) - Individual base	
92B-000-XXX (i.e. 92B-000-BJG) - Manifold base	

\* Requires sandwich regulator.  
 \*\* Must use DU pilot. Main valve exhaust cannot be restricted.

## OPTIONS FOR PLUG-IN VALVES

### Valve function

92B-**HXX-XXX-XX-DxxP-XXX**

- H** for 3 position dual pressure, pressure center\*
- J** for 3 position dual pressure, closed center\*
- K** for 3 position dual pressure, open center\*
- L** for single operator, single pressure with memory spring
- N** for single operator, dual pressure with memory spring\*

### Pilot exhaust

92B-**XA-XXX-XX-DxxP-XXX**

- A** standard pilot exhaust
- C** pilot exhaust to main valve exhaust\*\*

### Body electrical

92B-**XA-XXX-XX-DxxP-XXX**

- A** no light
- B** light(s)
- F** suppression and blocking diode with light(s)
- H** M.O.V. with light(s)

### Port configuration :

#### Individual sub-base

92B-**XXX-XA-XX-DxxP-XXX**

- A** side ports
- B** bottom ports (1/8" only)
- C** side & bottom ports (1/8" only)
- D** side inlet & exhaust with bottom cylinder ports (1/8")

#### Individual & Manifold sub-base Int. pilot

92B-**XXX-XA-XX-DxxP-XXX**

- A** internal pilot no light
- B** internal pilot single light
- C** internal pilot double light

### Pilot style :

92B-**XXX-XXX-DM-DxxP-XXX**

- DM** pilot exhaust muffled
- DP** pilot exhaust piped (#10-32)
- DU** pilot exhaust to main exhaust

### Lead Wire Lengths : (manifold sub-base only)

92B-**XXX-XXX-DM-DxxP-XXX**

- P** 12" leads
- 1** 18" leads
- 2** 24" leads
- 3** 36" leads
- 4** 48" leads
- 5** 72" leads

### Base only :

92B-000-XXX (i.e. 92B-000-AAA) - Individual base

(Note: bases are wired for double solenoid valves)

### Manifold sub-base

92B-**XXX-XJX-XX-DxxP-XXX**

- J** side ports
- K** bottom ports

### Individual sub-base Ext. pilot

92B-**XXX-XXD-XX-DxxP-XXX**

- D** external pilot no light
- E** external pilot single light
- F** external pilot double light

92B-000-XXX (i.e. 92B-000-BJA) - Manifold base

\* Requires sandwich regulator.

\*\* Must use DU pilot. Main valve exhaust cannot be restricted.

<b>OPTIONS FOR NON PLUG-IN VALVES</b>	<b>33</b>
<b>Valve function</b>	<b>34</b>
92B-HXX-XXX-XX-Dxxx-xxx	<b>36</b>
<ul style="list-style-type: none"> <li><b>H</b> for 3 position dual pressure, pressure center*</li> <li><b>J</b> for 3 position dual pressure, closed center*</li> <li><b>K</b> for 3 position dual pressure, open center*</li> <li><b>L</b> for single operator, single pressure with memory spring</li> <li><b>N</b> for single operator, dual pressure with memory spring*</li> </ul>	<b>32</b>
<b>Pilot exhaust</b>	<b>37</b>
92B-XXB-XXX-XX-Dxxx-xxx	<b>38</b>
<ul style="list-style-type: none"> <li><b>B</b> standard pilot exhaust</li> <li><b>D</b> pilot exhaust to main valve exhaust**</li> </ul>	<b>52</b>
<b>Port configuration :</b>	<b>67</b>
<b>Individual sub-base</b>	<b>69</b>
92B-XXX-XXA-XX-Dxxx-xxx	<b>44</b>
<ul style="list-style-type: none"> <li><b>A</b> side ports</li> <li><b>B</b> bottom ports (1/8" only)</li> <li><b>C</b> side &amp; bottom ports (1/8" only)</li> <li><b>D</b> side inlet &amp; exhaust with bottom cylinder ports (1/8")</li> </ul>	<b>46</b>
<b>Manifold sub-base</b>	<b>42</b>
92B-XXX-XJX-XX-Dxxx-xxx	<b>47</b>
<ul style="list-style-type: none"> <li><b>J</b> side ports</li> <li><b>K</b> bottom ports</li> </ul>	<b>48P</b>
<b>Pilot style :</b>	<b>48</b>
92B-XXX-XXX-DM-Dxxx-xxx	<b>400</b>
<ul style="list-style-type: none"> <li><b>DM</b> pilot exhaust muffled</li> <li><b>DP</b> pilot exhaust piped (#10-32)</li> <li><b>DU</b> pilot exhaust to main exhaust</li> </ul>	<b>92</b>
<b>Base only :</b>	
92B-000-XXX (i.e. 92B-000-AAG) - Individual base	
92B-000-XXX (i.e. 92B-000-BJG) - Manifold base	

\* Requires sandwich regulator.  
 \*\* Must use DU pilot. Main valve exhaust cannot be restricted.

## OPTIONS FOR PLUG-IN VALVES

### Valve function

92B-**HXX-XXX-XX-DxxP-xxx**

- H** for 3 position dual pressure, pressure center\*
- J** for 3 position dual pressure, closed center\*
- K** for 3 position dual pressure, open center\*
- L** for single operator, single pressure with memory spring
- N** for single operator, dual pressure with memory spring\*

### Pilot exhaust

92B-**XA**X-XXX-XX-DxxP-xxx

- A** standard pilot exhaust
- C** pilot exhaust to main valve exhaust\*\*

### Body electrical

92B-XX**A**-XXX-XX-DxxP-xxx

- A** no light
- B** light(s)
- F** suppression and blocking diode with light(s)
- H** M.O.V. with light(s)

### Port configuration :

#### Individual sub-base

92B-XXX-**XA**X-XX-DxxP-xxx

- A** side ports
- B** bottom ports (1/8" only)
- C** side & bottom ports (1/8" only)
- D** side inlet & exhaust with bottom cylinder ports (1/8")

#### Individual & Manifold sub-base Int. pilot

92B-XXX-XX**A**-XX-DxxP-xxx

- A** internal pilot no light
- B** internal pilot single light
- C** internal pilot double light

### Pilot style :

92B-XXX-XXX-**DM**-DxxP-xxx

- DM** pilot exhaust muffled
- DP** pilot exhaust piped (#10-32)
- DU** pilot exhaust to main exhaust

### Lead Wire Lengths : (manifold sub-base only)

92B-XXX-XXX-DM-Dxx**P**-xxx

- P** 12" leads
- 1** 18" leads
- 2** 24" leads
- 3** 36" leads
- 4** 48" leads
- 5** 72" leads

### Base only :

92B-000-XXX (i.e. 92B-000-AAA) - Individual base

(Note: bases are wired for double solenoid valves)

### Manifold sub-base

92B-XXX-**XJX**-XX-DxxP-xxx

- J** side ports
- K** bottom ports

### Individual sub-base Ext. pilot

92B-XXX-XX**D**-XX-DxxP-xxx

- D** external pilot no light
- E** external pilot single light
- F** external pilot double light

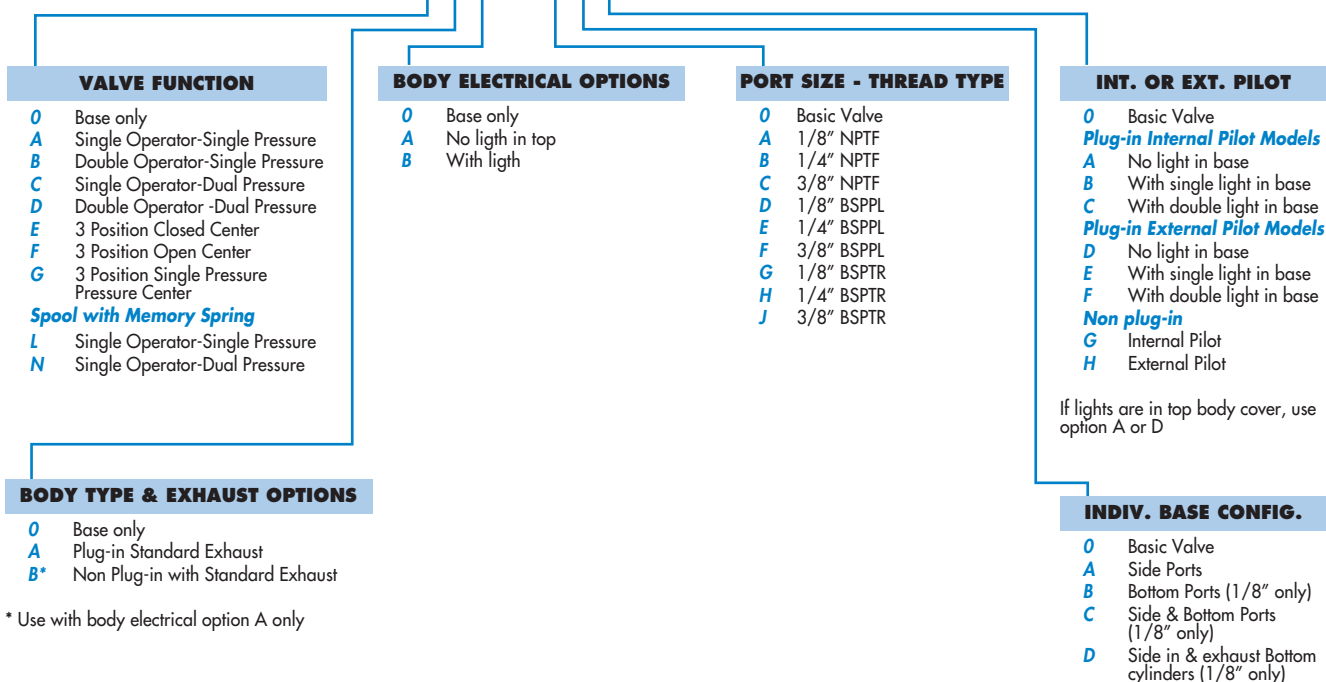
92B-000-XXX (i.e. 92B-000-BJA) - Manifold base

\* Requires sandwich regulator.

\*\* Must use DU pilot. Main valve exhaust cannot be restricted.

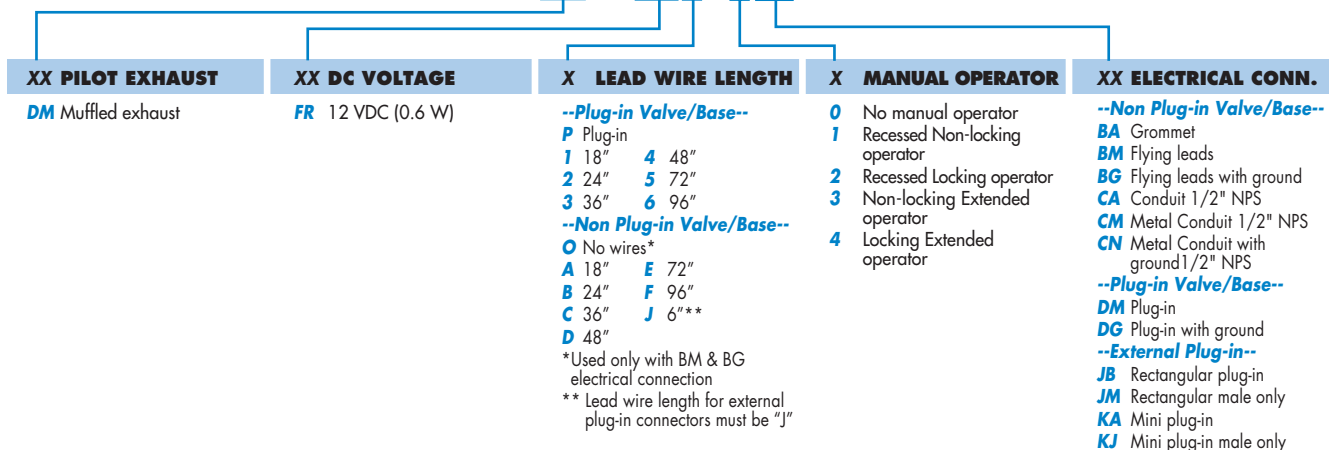
HOW TO ORDER

92B - XXX - XXX - (XX - DXXX - XXX) SEE BELOW



PILOT VALVE OPTIONS

XX - DXXX - XXX



HOW TO ORDER 92 SERIES FLOW CONTROL MODULE\*

FC 92C-AA	Plug-in flow control assembly single solenoid
FC 92C-BA	Plug-in flow control assembly double solenoid
FC 92C-CA	Non plug-in flow control assembly

\*If flow control module is to be installed between valve and base or valve and manifold at the factory, add -9 after the flow control model number, i.e., FC92C-AA-9. The flow control model number should follow the valve model number on which it is to be installed.

NOTE: If a flow control assembly is used with the dual pressure regulator option, only the flow control on the "B" end is functional. (Controls both cylinder ports.)  
 NOTE: Consult the general catalog for regulator and circuit bar ordering information.



---

**Codification table for voltages / Manual operator / Electrical connection**

---

VALVE CODE ➤ **-DM- D XX X-X XX**  
**1 2 3 4**

**OPTIONS AVAILABLE FOR**

- Pilot operated valves 52, 67, 92, 93, 400, ISO1, ISO2, ISO3 Series

---



### 1. VOLTAGE

D-XX X-X XX	VOLTAGE
DA	24 VDC (5.4W)
DB	12 VDC (5.4W)
DC	12 VDC (7.5W)
DD	24 VDC (7.3W)
DE	12 VDC (12.7W)
DF	24 VDC (12.7W)
DK	110 VDC (4.7W)
DJ	28 VDC (5.2W)
DL	64 VDC (6.0W)
DM	36 VDC (5.3W)
DN	6 VDC (6.0W)
DR	90 VDC (6.6W)
DS	110 VDC (7.3W)
DT	75 VDC (5.6W)
DP	48 VDC (5.8W)
FA	12 VDC (1.8W)
FB	24 VDC (1.8W)
FE	12 VDC (2.4W)
FF	24 VDC (2.4W)
JA	120/60, 110/50 (2.9W)
JB	240/60, 220/50 (2.9W)
JC	24/60, 24/50 (3.7W)
JD	100/60, 100/50, 110/60 (3.9W)
JE	220/60 (3.4W)
JF	240/50 (2.8W)
JG	200/60, 200/50 (3.9W)

### 2. WIRE LENGTH

D-XX X-X XX	WIRE LENGTH
0	No wires
A	18"
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 (grommet)
BK*	BA with protection diode
BL*	BA with protection varistor
BM**	Flying leads (solenoid plug-in)
BN**	BM with protection diode
BP**	BM with protection varistor
BG**	BM with ground
BH**	BM with protection diode & ground
BJ**	BM with protection varistor & ground
CA*	1/2" NPS conduit with flying leads
CM*	1/2" NPS metal conduit with flying leads
CN*	1/2" NPS metal conduit with flying leads & ground
JB	Rectangular connector
JD	JB with light
JM	Rectangular connector (male only)
KA	Mini square connector
KB	KA with protection diode
KC	KA with protection varistor
KD	KA with light
KE	KA with light and protection diode
KF	KA with light and protection varistor
KG	KA with light & diode
KJ	Mini square connector (male only)
KK	KJ with protection diode (male only)
KL	KJ with protection varistor (male only)
TA	Dual tabs with receptacles
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

\* From Lead wire length options choose A through F

\*\* From Lead wire length options choose 0 through F

Note: When coil is above 30 volts, a ground wire is required. Applies to options with flying leads.