

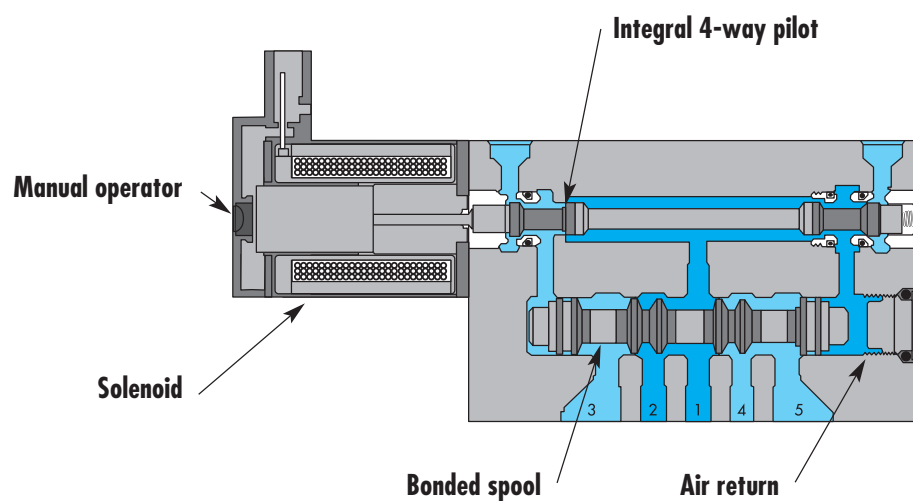
Direct solenoid and solenoid pilot operated valves

Individual mounting

Sub-base non "plug-in"	Sub-base "plug-in"
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Manifold mounting

Manifold base non "plug-in"	Manifold base "plug-in"
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SERIES FEATURES

- High force MACSOLENOID®.
- Integral 4-way pilot design.
- Single or dual pressure.
- Internal or external pilot.
- Single or double solenoid.
- 2 or 3 position.
- Rectified AC voltage.

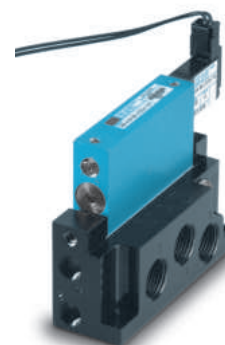


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Individual mounting
5/2, 5/3	G1/8"	1100 NI/min	Subbase non "plug-in"

OPERATIONAL BENEFITS

1. 4-way valve with 4-way integral pilot.
2. 16 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1100 NI/min).
4. Fast repeatable response times.
5. Maximum shifting forces in both directions.
6. Long life.



HOW TO ORDER

SINGLE PRESSURE MODELS

Port size	Pilot air	5/2 Single solenoid	5/2 Double solenoid	5/3 Closed centre	5/3 Open centre
Valve less base	Internal	48B-AMA-000-Gxxx-xxx	48B-BMA-000-Gxxx-xxx	48B-EMA-000-Gxxx-xxx	48B-FMA-000-Gxxx-xxx
	External	48B-AMD-000-Gxxx-xxx	48B-BMD-000-Gxxx-xxx	48B-EMD-000-Gxxx-xxx	48B-FMD-000-Gxxx-xxx
	Internal	48B-AMA-BAL-Gxxx-xxx	48B-BMA-BAL-Gxxx-xxx	48B-EMA-BAL-Gxxx-xxx	48B-FMA-BAL-Gxxx-xxx
	External	48B-AMD-BAM-Gxxx-xxx	48B-BMD-BAM-Gxxx-xxx	48B-EMD-BAM-Gxxx-xxx	48B-FMD-BAM-Gxxx-xxx

DUAL PRESSURE MODELS

Port size	Pilot air		5/2 Single solenoid	5/2 Double solenoid	5/3 Pressure centre
					
Valve less base	Internal	Supply #3 port	48B-CMB-000-Gxxx-xxx	48B-DMB-000-Gxxx-xxx	48B-HMB-000-Gxxx-xxx
		Supply #5 port	48B-CMC-000-Gxxx-xxx	48B-DMC-000-Gxxx-xxx	48B-HMC-000-Gxxx-xxx
	External		48B-CMD-000-Gxxx-xxx	48B-DMD-000-Gxxx-xxx	48B-HMD-000-Gxxx-xxx
G1/8"	Internal	Supply #3 port	48B-CMB-BAL-Gxxx-xxx	48B-DMB-BAL-Gxxx-xxx	48B-HMB-BAL-Gxxx-xxx
		Supply #5 port	48B-CMC-BAL-Gxxx-xxx	48B-DMC-BAL-Gxxx-xxx	48B-HMC-BAL-Gxxx-xxx
	External		48B-CMD-BAM-Gxxx-xxx	48B-DMD-BAM-Gxxx-xxx	48B-HMD-BAM-Gxxx-xxx

STANDARD SOLENOID OPERATOR ►

G **xxx-xxx***

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120 V~/2,5W	A	45 cm	1	Non-locking	BA	Flying leads
DC	24 V=/1,8W	B	60 cm	2	Locking	BT	Flying leads with light
DD	24 V=/2,5W	C	90 cm			GA	MAC JAC Solenoid plug-in
DF	24 V=/4,0W					KA	Mini connector
						KT	Mini connector with light
						KD	Mini connector with rectifier & light & ground

* Other options available, see page options.
Note : AC voltage requires connector with rectifier.



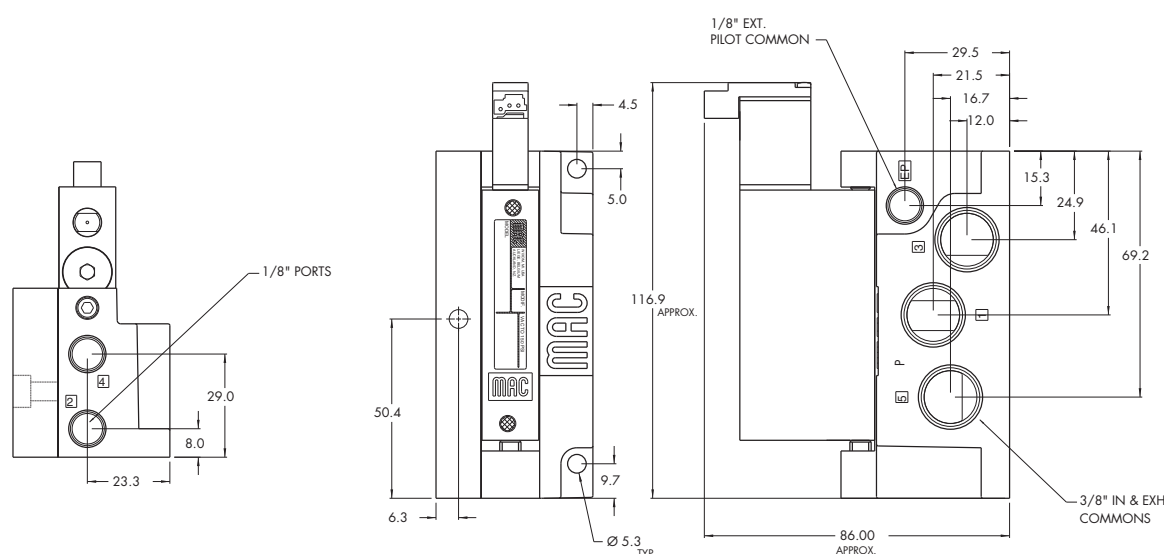
100%
OF
PRODUCTION
TESTED
100%

WARRANTY
18
MONTHS

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal pilot: 2 pos.: 1,3 to 8 bar - 3 pos.: 2,3 to 8 bar External pilot: vacuum to 8 bar
Pilot pressure :	2 position : 1,3 to 8 bar - 3 position : 2,3 to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	6,0 mm
Flow (at 6 bar, ΔP=1bar) :	1/8" side ports: 1000 Nl/min (Cv 1,0) – 1/8" bottom ports : 1100 Nl/min (Cv 1.1)
Coil :	Epoxy encapsulated – 100% ED – Class A wire
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

- Options :
- NPTF threads • Sandwich Flow controls: FC48B-BB
 - Sandwich regulator: see "regulators" section

DIMENSIONS Dimensions shown are metric (mm)





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Individual mounting
5/2, 5/3	G1/8"	1100 NI/min	Subbase "plug-in"

OPERATIONAL BENEFITS

1. 4-way valve with 4-way integral pilot.
2. 16 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1100 NI/min).
4. Fast repeatable response times.
5. Maximum shifting forces in both directions.
6. Long life.



HOW TO ORDER

SINGLE PRESSURE MODELS (LED STANDARD EXCEPT FOR SINGLE SOLENOIDS)

Port size	Pilot air	5/2 Single solenoid	5/3 Double solenoid	5/3 Closed centre	5/3 Open centre
Valve less base	Internal	48B-AMA-000-GxxP-xxx	48B-BME-000-GxxP-xST	48B-EME-000-GxxP-xST	48B-FME-000-GxxP-xST
	External	48B-AMD-000-GxxP-xxx	48B-BMH-000-GxxP-xST	48B-EMH-000-GxxP-xST	48B-FMH-000-GxxP-xST
	Internal	48B-AMA-BAA-GxxP-xxx	48B-BME-BAC-GxxP-xST	48B-EME-BAC-GxxP-xST	48B-FME-BAC-GxxP-xST
	External	48B-AMD-BAB-GxxP-xxx	48B-BMH-BAD-GxxP-xST	48B-EMH-BAD-GxxP-xST	48B-FMH-BAD-GxxP-xST

DUAL PRESSURE MODELS (LED STANDARD EXCEPT FOR SINGLE SOLENOIDS)

Port size	Pilot air		5/2 Single solenoid	5/2 Double solenoid	5/3 Pressure centre
					
Valve less base	Internal	Supply #3 port	48B-CMB-000-GxxP-xxx	48B-DMF-000-GxxP-xST	48B-HMF-000-GxxP-xST
		Supply #5 port	48B-CMC-000-GxxP-xxx	48B-DMG-000-GxxP-xST	48B-HMG-000-GxxP-xST
	External		48B-CMD-000-GxxP-xxx	48B-DMH-000-GxxP-xST	48B-HMH-000-GxxP-xST
G1/8"	Internal	Supply #3 port	48B-CMB-BAA-GxxP-xxx	48B-DMF-BAC-GxxP-xST	48B-HMF-BAC-GxxP-xST
		Supply #5 port	48B-CMC-BAA-GxxP-xxx	48B-DMG-BAC-GxxP-xST	48B-HMG-BAC-GxxP-xST
	External		48B-CMD-BAB-GxxP-xxx	48B-DMH-BAD-GxxP-xST	48B-HMH-BAD-GxxP-xST

STANDARD SOLENOID OPERATOR ➤

G XX P-xxx *

XX	Voltage	X	Manual operator	XX	Electrical connection
AA	120 V~/2,5W	1	Non-locking	ST	Double solenoid & 3 position models Base plug-in
DC	24 V~/1,8W	2	Locking	SA	Single solenoid models Base plug-in
DD	24 V~/2,5W			SJ	Base plug-in with LED light
DF	24 V~/4,0W			SS	Base plug-in with rectifier & light & ground

* Other options available, see page options.

Note : AC voltage requires connector with rectifier (for double solenoid consult factory).

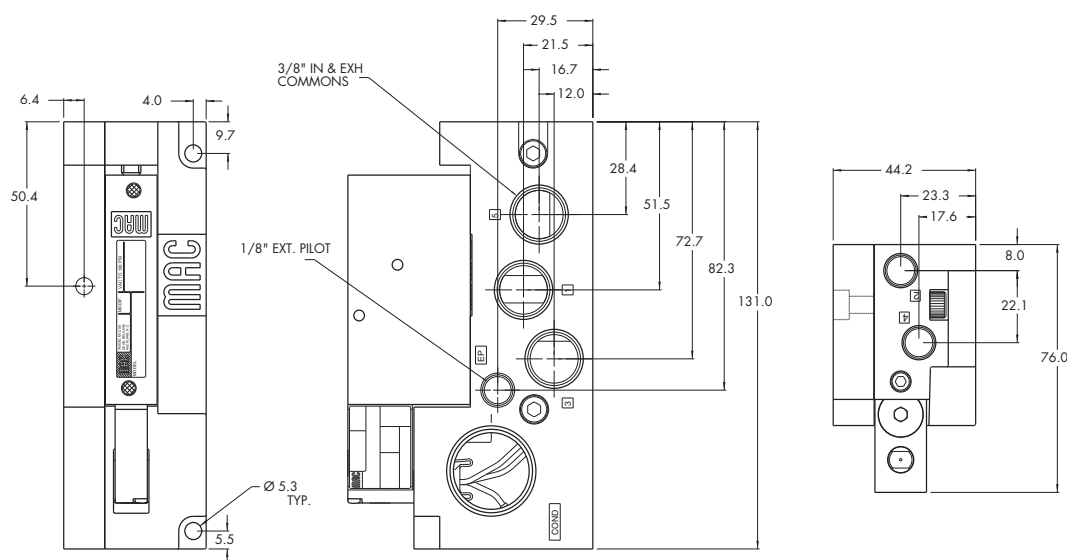


TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal pilot: 2 pos.: 1,3 to 8 bar - 3 pos.: 2,3 to 8 bar External pilot: vacuum to 8 bar
Pilot pressure :	2 position : 1,3 to 8 bar - 3 position : 2,3 to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	6,0 mm
Flow (at 6 bar, ΔP=1bar) :	1/8" side ports: 1000 NI/min (Cv 1,0) – 1/8" bottom ports : 1100 NI/min (Cv 1.1)
Coil :	Epoxy encapsulated – 100% ED – Class A wire
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

- Options :
- NPTF threads • Sandwich Flow controls: FC48B-AB
 - Sandwich regulator: see "regulators" section

DIMENSIONS

Dimensions shown are metric (mm)



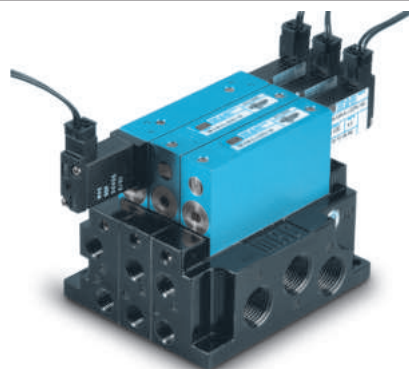


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Manifold mounting
5/2, 5/3	G1/8"	1100 NI/min	Manifold base non "plug-in"

OPERATIONAL BENEFITS

1. 4-way valve with 4-way integral pilot.
2. 16 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1100 NI/min).
4. Fast repeatable response times.
5. Maximum shifting forces in both directions.
6. Long life.



HOW TO ORDER

SINGLE PRESSURE MODELS (MIDDLE STATION MANIFOLDS WITH SIDE PORTS)

Port size	Pilot air	5/2 Single solenoid	5/2 Double solenoid	5/3 Closed centre	5/3 Open centre
Valve less base	Internal	48B-AMA-000-Gxxx-xxx	48B-BMA-000-Gxxx-xxx	48B-EMA-000-Gxxx-xxx	48B-FMA-000-Gxxx-xxx
	External	48B-AMD-000-Gxxx-xxx	48B-BMD-000-Gxxx-xxx	48B-EMD-000-Gxxx-xxx	48B-FMD-000-Gxxx-xxx
	G1/8"	Internal	48B-AMA-BJL-Gxxx-xxx	48B-EMA-BJL-Gxxx-xxx	48B-FMA-BJL-Gxxx-xxx
		External	48B-AMD-BJM-Gxxx-xxx	48B-EMD-BJM-Gxxx-xxx	48B-FMD-BJM-Gxxx-xxx

DUAL PRESSURE MODELS (MIDDLE STATION MANIFOLDS WITH SIDE PORTS)

Port size	Pilot air		5/2 Single solenoid	5/2 Double solenoid	5/3 Pressure centre
					
Valve less base	Internal	Supply #3 port	48B-CMB-000-Gxxx-xxx	48B-DMB-000-Gxxx-xxx	48B-HMB-000-Gxxx-xxx
		Supply #5 port	48B-CMC-000-Gxxx-xxx	48B-DMC-000-Gxxx-xxx	48B-HMC-000-Gxxx-xxx
	External		48B-CMD-000-Gxxx-xxx	48B-DMD-000-Gxxx-xxx	48B-HMD-000-Gxxx-xxx
G1/8"	Internal	Supply #3 port	48B-CMB-BJL-Gxxx-xxx	48B-DMB-BJL-Gxxx-xxx	48B-HMB-BJL-Gxxx-xxx
		Supply #5 port	48B-CMC-BJL-Gxxx-xxx	48B-DMC-BJL-Gxxx-xxx	48B-HMC-BJL-Gxxx-xxx
	External		48B-CMD-BJM-Gxxx-xxx	48B-DMD-BJM-Gxxx-xxx	48B-HMD-BJM-Gxxx-xxx

STANDARD SOLENOID OPERATOR ►

G **xxx-xxx***

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120 V~/2,5W	A	45 cm	1	Non-locking	BA	Flying leads
BC	24 V~/1,8W	B	60 cm	2	Locking	BT	Flying leads with light
DD	24 V~/2,5W	C	90 cm			GA	MAC JAC Solenoid plug-in
DF	24 V~/4,0W					KA	Mini connector
						KT	Mini connector with light
						KD	Mini connector with rectifier & light & ground

* Other options available, see page options.

Note : - AC voltage requires connector with rectifier.

- Manifold assemblies consist of (1) left end manifold, (1) right end manifold, and middle station manifolds (options "J" or "K").

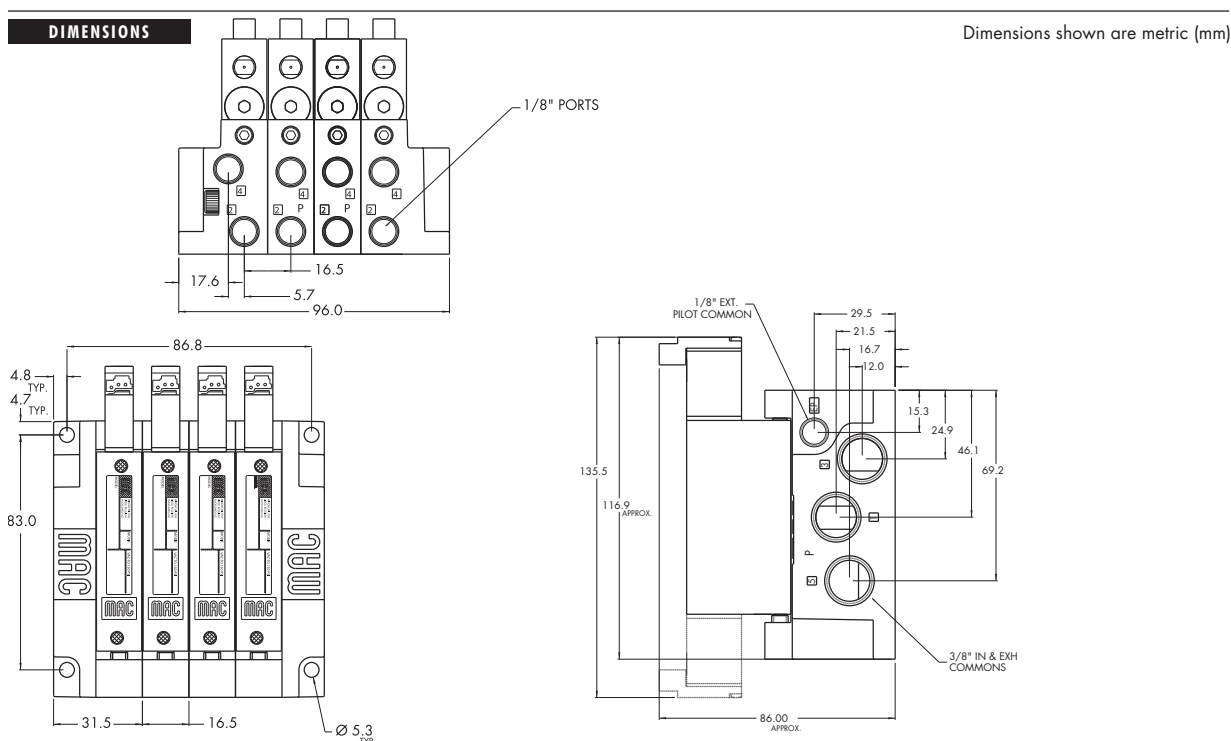


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WARRANTY
18
MONTHS

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal pilot: 2 pos.: 1,3 to 8 bar - 3 pos.: 2,3 to 8 bar External pilot: vacuum to 8 bar
Pilot pressure :	2 position : 1,3 to 8 bar - 3 position : 2,3 to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	6,0 mm
Flow (at 6 bar, ΔP=1bar) :	1/8" side ports: 1000 Nl/min (Cv 1,0) – 1/8" bottom ports : 1100 Nl/min (Cv 1.1)
Coil :	Epoxy encapsulated – 100% ED – Class A wire
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

- Options :
- NPTF threads • Sandwich flow controls: FC48B-BB
 - Sandwich regulator: see "regulators" section
 - Valve blanking plate: M-48004 • Isolator disk for inlet/exhaust: 28471





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow [Max]	Manifold mounting
5/2, 5/3	G1/8"	1100 NI/min	Manifold base "plug-in"

OPERATIONAL BENEFITS

1. 4-way valve with 4-way integral pilot.
2. 16 mm valve (stacks on 16.5 mm centers).
3. High flow (up to 1100 NI/min).
4. Fast repeatable response times.
5. Maximum shifting forces in both directions.
6. Long life.



HOW TO ORDER

SINGLE PRESSURE MODELS (LED STANDARD EXCEPT FOR SINGLE SOLENOIDS)

Port size	Pilot air	5/2 Single solenoid	5/2 Double solenoid	5/3 Closed centre	5/3 Open centre
Valve less base G1/8"	Internal	48B-AMA-000-GxxP-xxx	48B-BME-000-GxxP-xST	48B-EME-000-GxxP-xST	48B-FME-000-GxxP-xST
	External	48B-AMD-000-GxxP-xxx	48B-BMH-000-GxxP-xST	48B-EMH-000-GxxP-xST	48B-FMH-000-GxxP-xST
	Internal	48B-AMA-BJA-GxxP-xxx	48B-BME-BJC-GxxP-xST	48B-EME-BJC-GxxP-xST	48B-FME-BJC-GxxP-xST
	External	48B-AMD-BJB-GxxP-xxx	48B-BMH-BJD-GxxP-xST	48B-EMH-BJD-GxxP-xST	48B-FMH-BJD-GxxP-xST

DUAL PRESSURE MODELS (LED STANDARD EXCEPT FOR SINGLE SOLENOIDS)

Port size	Pilot air		5/2 Single solenoid	5/2 Double solenoid	5/3 Pressure centre
					
Valve less base	Internal	Supply #3 port	48B-CMB-000-GxxP-xxx	48B-DMF-000-GxxP-xST	48B-HMF-000-GxxP-xST
		Supply #5 port	48B-CMC-000-GxxP-xxx	48B-DMG-000-GxxP-xST	48B-HMG-000-GxxP-xST
	External		48B-CMD-000-GxxP-xxx	48B-DMH-000-GxxP-xST	48B-HMH-000-GxxP-xST
G1/8"	Internal	Supply #3 port	48B-CMB-BJC-GxxP-xxx	48B-DMF-BJC-GxxP-xST	48B-HMF-BJC-GxxP-xST
		Supply #5 port	48B-CMC-BJC-GxxP-xxx	48B-DMG-BJC-GxxP-xST	48B-HMG-BJC-GxxP-xST
	External		48B-CMD-BJD-GxxP-xxx	48AB-DMH-BJD-GxxP-xST	48B-HMH-BJD-GxxP-xST

STANDARD SOLENOID OPERATOR ►

G **xx** P-**xxx***

Above numbers are middle station manifold with side ports

Voltage	Manual operator	Electrical connection
AA 120 V~/2,5W	1 Non-locking	Double solenoid & 3 position models
DC 24 V~/1,8W	2 Locking	ST Base plug-in
DD 24 V~/2,5W		Single solenoid models
DF 24 V~/4,0W		SA Base plug-in
		SJ Base plug-in with LED light
		SS Base plug-in with rectifier & light & ground

* Other options available, see page options.

Note : - AC voltage requires connector with rectifier (for double solenoid consult factory).

- Manifold assemblies consist of (1) left end manifold, (1) right end manifold, and middle station manifolds (options "J" or "K").

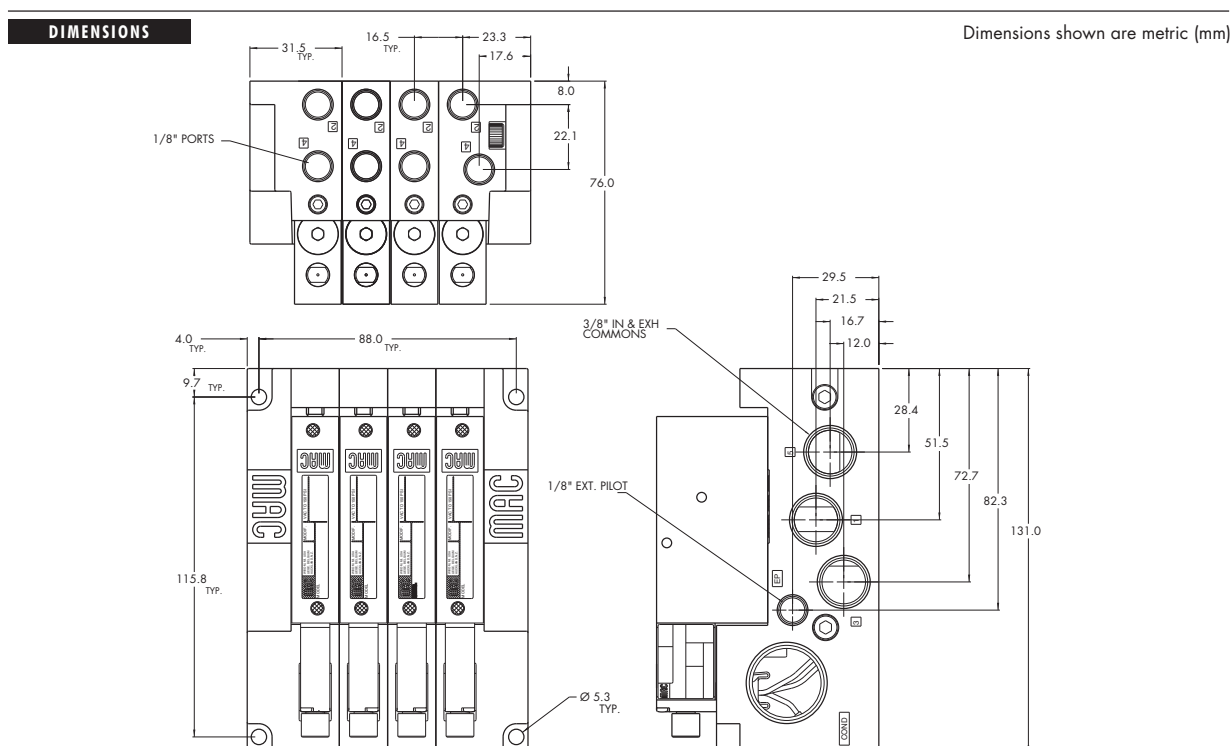


100%
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PRODUCTION
TESTED
100%

WARRANTY
18
MONTHS

TECHNICAL DATA	
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Internal pilot: 2 pos.: 1,3 to 8 bar - 3 pos.: 2,3 to 8 bar External pilot: vacuum to 8 bar
Pilot pressure :	2 position : 1,3 to 8 bar - 3 position : 2,3 to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	6,0 mm
Flow (at 6 bar, ΔP=1bar) :	1/8" side ports: 1000 NI/min (Cv 1,0) – 1/8" bottom ports : 1100 NI/min (Cv 1.1)
Coil :	Epoxy encapsulated – 100% ED – Class A wire
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	1.0 to 4.0 W
Response times : (with 4 W coil)	Energize : 6 ms De-energize : 6 ms

- Options :
- NPTF threads • Sandwich flow controls: FC48B-AB
 - Sandwich regulator: see "regulators" section
 - Valve blanking plate: M-48004 • Isolator disk for inlet/exhaust: 28471
 - Plug-in wire protector: 24180





Direct solenoid and solenoid pilot operated valves

OPTIONS FOR NON PLUG-IN VALVES

Base type :

Individual base

48B-XXX-**A**X-GXXX-XXX

- A** Individual base – Side port
- B** Individual base – Bottom port

Manifold base

48B-XXX-**X**JX-GXXX-XXX

- J** Manifold base – Side ports
- K** Manifold base – Bottom ports
- L** Left end manifold base – Side ports
- M** Left end manifold base – Bottom ports
- N** Right end manifold base – Side ports
- P** Right end manifold base – Bottom ports

Universal spool

48B-**R**XX-XXX-GXXX-XXX

- R** 2 position single solenoid universal spool
- S** 2 position double solenoid universal spool

Base only :

48B-000-XXX (i.e. 48B-000-BAL) - Individual base

48B-000-XXX (i.e. 48B-000-BJL) - Manifold base

Pilot style :

48B-**X**MX-XXX-GXXX-XXX

- M** Pilot exhaust muffled
- R** Pilot exhaust piped (M5)
- U** Pilot exhaust to main exhaust



Direct solenoid and solenoid pilot operated valves

OPTIONS FOR PLUG-IN VALVES

Base type :

Individual base

48B-XXX-**AX**-G-**xxP**-xxx

- A** Individual base – Side port
- B** Individual base – Bottom port

Manifold base

48B-XXX-**XJX**-G-**xxP**-xxx

- J** Manifold base – Side ports
- K** Manifold base – Bottom ports
- L** Left end manifold base – Side ports
- M** Left end manifold base – Bottom ports
- N** Right end manifold base – Side ports
- P** Right end manifold base – Bottom ports

Universal spool

48B-**RXX**-XXX-G-**xxP**-xxx

- R** 2 position single solenoid universal spool
- S** 2 position double solenoid universal spool

Base only :

48B-000-XXX (i.e. 48B-000-BAA)

- Individual base wired for a single solenoid valve

48B-000-XXX (i.e. 48B-000-BJC)

- Manifold base wired for a double solenoid valve

For LED with diode (2 & 3 position double solenoid valves)

48B-**XXJ**-XXX-G-**xxP**-xGA

- J** Internal pilot single pressure
- K** Internal pilot dual pressure supply from #3 port
- L** Internal pilot dual pressure supply from #5 port
- M** External pilot

Pilot style :

48B-**XMx**-XXX-G-**xxP**-xxx

- M** Pilot exhaust muffled
- R** Pilot exhaust piped (M5)
- U** Pilot exhaust to main exhaust

Sandwich pressure regulator with manual adjust knob

OPERATIONAL BENEFITS

1. Easy mounting: saves on installation costs in comparison with inline regulators.
2. Compact all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



HOW TO ORDER

NON PLUG-IN SANDWICH REGULATORS (KNOB ADJUSTMENT)

Gauge	Regulator "12" end Internal pilot	Regulator "12" end External pilot
Gauge port	PR48B-BAAA	PR48B-BBAA

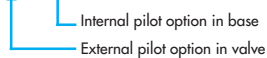
PLUG-IN SANDWICH REGULATORS (KNOB ADJUSTMENT)

Gauge	Regulator "12" end Internal pilot	Regulator "12" end External pilot
Gauge port	PR48B-AAAA	PR48B-ABAA

Notes:

- External pilot regulator required only when supply pressure (primary) to the valve is below the minimum operating pressure of the 48 series valve.
- When an internal pilot regulator is used with the 48 series valve, the valve should be ordered as external pilot and the base should be ordered as internal pilot. This ensures that the pilot supply is not regulated. If an internal pilot valve and base are used with an internal pilot regulator, the pilot supply is regulated.

Example: Valve 48B-AM D-AA A-GxxP-xxx with PR48B-AAAA



OPTIONS

Pressure range :

PR48B-**xxx****A**

- A** 0 to 8 bar
- B** 0 to 5,3 bar
- C** 0 to 2 bar

Adjustment for : Plug-in regulator

PR48B-**A****xxx**

- A** Knob
- D** Screwdriver slot
- G** Screwdriver slot with locknut

Non plug-in regulator

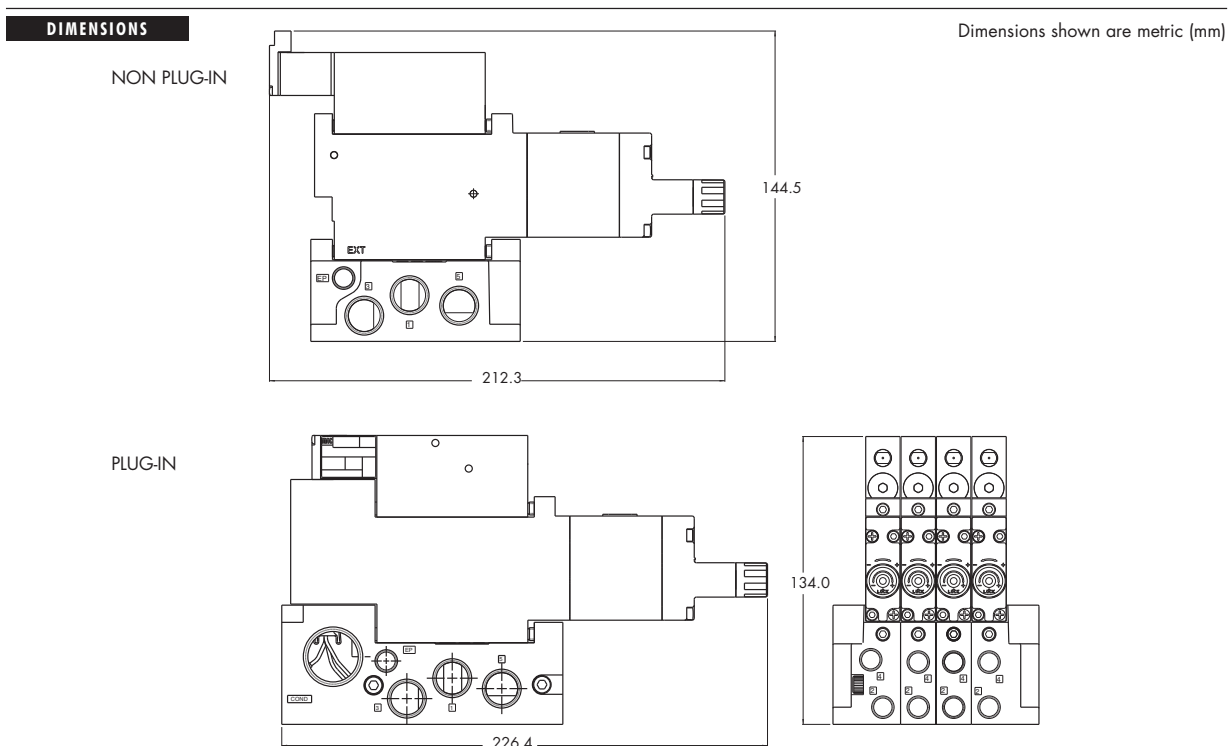
PR48B-**B****xxx**

- B** Knob
- E** Screwdriver slot
- H** Screwdriver slot with locknut



TECHNICAL DATA	
Fluid :	Compressed air, inert gases
Pressure range :	0 to 8 bar
Regulating range :	0 to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Flow (at 6 bar, ΔP=1bar) :	800 Nl/min (Cv 0,8)

- Spare parts :
- Pressure regulator (less sandwich block) : PR48B-C0xx (knob), PR48B-F0xx (screwdriver slot), PR48B-J0xx (screwdriver slot with locknut)
 - Gauge: 24177-160 (0 to 10,7 bar, 23 mm)
24177-100 (0 to 6,7 bar, 23 mm)
24177-060 (0 to 4 bar, 23 mm)



Codification table for voltages / Manual operator / Electrical connection

VALVE CODE ➤

G XX X-X XX
1 2 3 4

1. VOLTAGE			4. ELECTRICAL CONNECTION	
G-XX X-X XX	VOLTAGE		G-XX X-X XX	ELECTRICAL CONNECTION
AA	120V~/2,5W	Requires electrical connector with rectifier	BA	Flying leads
AC	24V~/4,0W	Requires electrical connector with rectifier	BB	BA with ground wire
DA	24V~/1,0W		BC	BA with light
DC	24V~/1,8W		BD	BA with light and ground wire
DD	24V~/2,5W		BE	BA with suppression diode
DE	24V~/3,0W		BF	BA with suppression diode and ground wire
DF	24V~/4,0W		BG	BA with suppression diode and light
DG	12V~/1,0W		BH	BA with suppression diode, light and ground wire
DJ	12V~/1,8W		BN	BA with suppression diode and blocking diode
DK	12V~/2,5W		BP	BA with suppression diode, blocking diode and ground wire
DM	12V~/3,0W			
DN	12V~/4,0W		BR	BA with suppression diode, blocking diode and light
DR	6V~/1,8W		BS	BA with suppression diode, blocking diode, light and ground wire
DS	6V~/3,0W			
EB	48V~/1,8W		GA	MAC JAC Solenoid plug-in
EC	48V~/3,0W		GB	MAC JAC Solenoid plug-in with diode
ED	120V~/2,5W		GC	MAC JAC Solenoid plug-in with MOV
GD	12V~/0,5W	34 series only	GD	MAC JAC Solenoid plug-in with LED
GE	24V~/0,5W	34 series only	GE	MAC JAC Solenoid plug-in with diode and LED
			GF	MAC JAC Solenoid plug-in with MOV and LED
			GG	MAC JAC Solenoid plug-in with rectifier
			GH	MAC JAC Solenoid plug-in with rectifier and LED
			KA	Mini connector
			KB	KA with ground
			KC	KA with rectifier and light
			KD	KA with rectifier, light and ground
			KE	KA with suppression diode
			KF	KA with suppression diode and ground
			KJ	Solenoid plug-in housing without wire assembly
			KM	Solenoid plug-in housing with ground pin without wire assembly
			KN	KA with suppression diode and blocking diode
			KP	KA with suppression diode, blocking diode and ground
			KT	KA with light
			KU	KA with light and ground
			KV	KA with suppression diode and light
			KW	KA with suppression diode, light and ground
			KX	KA with suppression diode, blocking diode and light
			KY	KA with suppression diode, blocking diode, light & ground
2. WIRE LENGTH			ELECTRICAL CONNECTION FOR PLUG-IN VALVES	
G-XX X-X XX	WIRE LENGTH		G-XX X-X XX	PLUG-IN OPTIONS
0	No lead wires (used only with "KJ" & "KM" connectors)		SB	Base plug-in with ground
A	45 cm - 18" coil leads		SC	Base plug-in with suppression & blocking diode
B	60 cm - 24" coil leads		SD	Base plug-in with suppression & blocking diode & ground
C	90 cm - 36" coil leads		SE	Base plug-in with MOV
D	120 cm - 48" coil leads		SF	Base plug-in with MOV & ground
E	180 cm - 72" coil leads		SG	Base plug-in with rectifier
F	240 cm - 96" coil leads		SH	Base plug-in with rectifier & ground
G	305 cm - 120" coil leads		SK	Base plug-in with light & ground
H	366 cm - 144" coil leads		SL	Base plug-in with suppression & blocking diode & light
1	45 cm - 18" base leads		SM	Base plug-in with suppression & blocking diode with light & ground
2	60 cm - 24" base leads		SN	Base plug-in with MOV & light
3	90 cm - 36" base leads		SP	Base plug-in with MOV & light with ground
4	120 cm - 48" base leads		SR	Base plug-in with rectifier & light
5	180 cm - 72" base leads			
6	240 cm - 96" base leads			
7	305 cm - 120" base leads			
3. MANUAL OPERATOR				
G-XX X-X XX	MANUAL OPERATOR			
1	Non-locking recessed			
2	Locking recessed			
3	Non-locking extended			
4	Locking extended			

Codification table for voltages / Manual operators / Electrical connections

VALVE CODE ➤

J XX X-X XX
1 2 3 4

1. VOLTAGE		J-XX X-X XX	ELECTRICAL CONNECTION
J-XX X-X XX	VOLTAGE	*JJ	Square connector Male only (Plain)
AA	120V~/5,4W	*JK	Square connector with rectifier
AC	24V~/5,4W	*JL	Square connector with rectifier with light
DE	24V~/1,8W	*JM	Rectangular connector Male only (Plain)
DF	12V~/1,8W	*JN	Rectangular connector with diode
DJ	24V~/1,3W	*JP	Rectangular connector with MOV
DL	12V~/1,3W	*JR	Rectangular connector with diode/light
DN	12V~/0,5W*	*JS	Rectangular connector with MOV/light
DR	12V~/1,0W*	*JT	Rectangular connector with rectifier
DS	24V~/0,5W*	*JU	Rectangular connector with rectifier with light
DU	24V~/1,0W*	* Not available on manifold or stacking valves	
* Not available on 36 series universal valves			
2. WIRE LENGHT		J-XX X-X XX	MINI SQUARE PLUG-IN CONNECTORS 9,4 MM SPACING BETWEEN PINS
J-XX X-X XX	WIRE LENGHT	KA	Mini plug-in
A	45 cm - 18" coil leads	KB	Mini plug-in with diode
B	60 cm - 24" coil leads	KC	Mini plug-in with MOV
C	90 cm - 36" coil leads	KD	Mini plug-in with light
D	120 cm - 48" coil leads	KE	Mini plug-in with diode and light
E	180 cm - 72" coil leads	KF	Mini plug-in with MOV and light
F	240 cm - 96" coil leads	KG	Mini plug-in with rectifier
P	Base plug-in	KH	Mini plug-in with rectifier and light
O	No leads (use with J, K & L type connectors)	KJ	Mini plug-in - Male only
		KK	Mini plug-in with diode - Male only
		KL	Mini plug-in with MOV - Male only
		KM	Mini plug-in with light - Male only
		KN	Mini plug-in with diode and light - Male only
		KP	Mini plug-in with MOV and light - Male only
		KR	Mini plug-in with rectifier - Male only
		KS	Mini plug-in with rectifier and light - Male only
		* Not available on manifold or stacking valves	
3. MANUAL OPERATOR		J-XX X-X XX	CONNECTORS FOR NON PLUG-IN VALVES MINI SQUARE PLUG-IN CONNECTORS 8.0 MM SPACING BETWEEN PINS ISO SPECIFICATION 15217
J-XX X-X XX	MANUAL OPERATOR	LA	Mini plug-in
0	No operator	LB	Mini plug-in with diode
1	Non-locking recessed	LC	Mini plug-in with MOV
2	Locking recessed	LD	Mini plug-in with light
3	Non-locking extended	LE	Mini plug-in with diode and light
4	Locking extended	LF	Mini plug-in with MOV and light
		LG	Mini plug-in with rectifier
		LH	Mini plug-in with rectifier and light
		LJ	Mini plug-in - Male only
		LK	Mini plug-in with diode - Male only
		LL	Mini plug-in with MOV - Male only
		LM	Mini plug-in with light - Male only
		LN	Mini plug-in with diode and light - Male only
		LP	Mini plug-in with MOV and light - Male only
		LR	Mini plug-in with rectifier - Male only
		LS	Mini plug-in with rectifier and light - Male only
4. ELECTRICAL CONNECTION		J-XX X-X XX	CONNECTORS FOR PLUG-IN VALVES
J-XX X-X XX	ELECTRICAL CONNECTION	FA	Base plug-in
BA	Flying leads	FB	Base plug-in with diode
GA	MAC JAC solenoid plug-in	FC	Base plug-in with MOV
GB	MAC JAC solenoid plug-in with diode	FD	Base plug-in with light
GC	MAC JAC solenoid plug-in with MOV	FE	Base plug-in with diode and light
GD	MAC JAC solenoid plug-in with light	FF	Base plug-in with MOV and light
GE	MAC JAC solenoid plug-in with diode and light	FG	Base plug-in with rectifier
GF	MAC JAC solenoid plug-in with MOV and light	FH	Base plug-in with rectifier and light
GG	MAC JAC solenoid plug-in with rectifier		
GH	MAC JAC solenoid plug-in with rectifier and light		
GJ	MAC JAC solenoid plug-in - Male only		
GK	MAC JAC solenoid plug-in with diode - Male only		
GL	MAC JAC solenoid plug-in with MOV - Male only		
GM	MAC JAC solenoid plug-in with light - Male only		
GN	MAC JAC solenoid plug-in with diode and light - Male only		
GP	MAC JAC solenoid plug-in with MOV and light - Male only		
GR	MAC JAC solenoid plug-in with rectifier - Male only		
GS	MAC JAC solenoid plug-in with rectifier and light - Male only		
*JA	Square connector		
*JB	Rectangular connector		
*JC	Square connector with light		
*JD	Rectangular connector with light		
*JE	Square connector with diode		
*JF	Square connector with MOV		
*JG	Square connector with diode/light		
*JH	Square connector with MOV/light		