

Individual mounting

Inline

Series

Manifold mounting

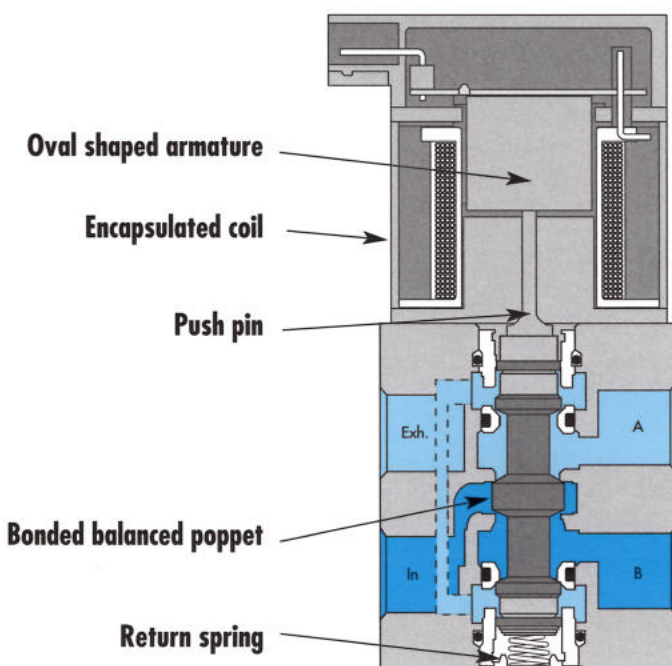
Stacking

Manifold base
"plug-in"

Manifold base
"plug-in" with
pressure
regulators

Manifold base
"plug-in" with flow
controls

Manifold base
"plug-in" with PR & FC



SERIES FEATURES

- Patented high force MACSOLENOID® for fastest possible response times.
- Bonded balanced poppet for high flow, precise repeatability, and consistent operation.
- Balanced poppet permits versatility in function — may be used as 3-way or 2-way normally open or normally closed and may be used for vacuum, divertor, or selector applications.
- Extremely high cycle rate capability.
- Use on lube or non-lube service.
- Manual overrides as standard.
- Various solenoid enclosures and plug-in connectors.
- Optional surge suppression available.
- Low wattage DC solenoids — down to 1.3 watts.
- Rectified AC voltage.

31

33

34

36

32

37

38

52

53

54

67

68

69

41

43

44

23

24

46

42

47

48P

48

400

92

83

93

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3

Function	Port size	Flow [Max]	Individual mounting	Series
4/2	G1/8" - M5	300 NI/min	Inline	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Single Operator		Double Operator	
	Without flow controls	With flow controls	Without flow controls	With flow controls
G1/8"	46A-AC1-J XXX-XXX	46A-AC2-J XXX-XXX	46A-GC1-J XXX-XXX	46A-GC2-J XXX-XXX
M5	46A-AD1-J XXX-XXX	46A-AD2-J XXX-XXX	46A-GD1-J XXX-XXX	46A-GD2-J XXX-XXX

SOLENOID OPERATOR ►

J XXX-XXX* (-G) Add "G" for ground

XX Voltage	X Lead wire length	X Manual operator	XX Electrical connection
Single & double solenoid			
AA 120 V~/5,4W	A 45 cm	1 Non-locking	BA Flying leads
AC 24 V~/5,4W	B 60 cm	2 Locking	GA MAC JAC Solenoid plug-in with rectifier
DA 24 V=/5,4W	C 90 cm		GG MAC JAC Solenoid plug-in with rectifier
DB 12 V=/5,4W	**O No lead wire		JB Rectangular connector
Single solenoid only			JD Rectangular connector with light
DC 24 V=/2,4W			KA Mini square connector
DD 12 V=/2,4W			KD Mini square connector with light

* Other options available, see page 393.

Note : - AC voltage requires connector with rectifier.

- With the MAC JAC, washdown capability is possible. Consult factory for washdown modification number.

- Double solenoid requires minimum 5,4 watts.

OPTIONS

46A-AC1-JXXX-XXX

G Use with O ring mount (body option D and "H")

- A Single operator - 4 port body with side ports
- C Single operator - 4 port body with bottom ports (No side ports)
- D Single operator - Bottom O ring mount - All ports (No side ports)
- F Single operator - Bottom O ring mount - Cylinder ports only - Side inlet and exhaust
- G Double operator - 4 Port body - with side ports
- H Double operator - Bottom O ring mount. All ports (no side ports).

Examples : 46A-DG1-Jxxx-xxx (Bottom O ring mount - all ports)
46A-CD1-Jxxx-xxx (4 port body with bottom ports - no side ports)

TECHNICAL DATA

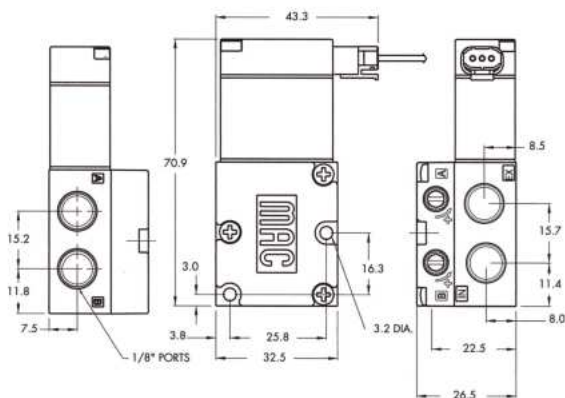
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	3,3 mm
Flow :	1,8W : 200 Nl/min (Cv 0,20) – 2,4W : 200 Nl/min (Cv 0,20) – 5,4W : 300 Nl/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W

Options : • NPTF threads

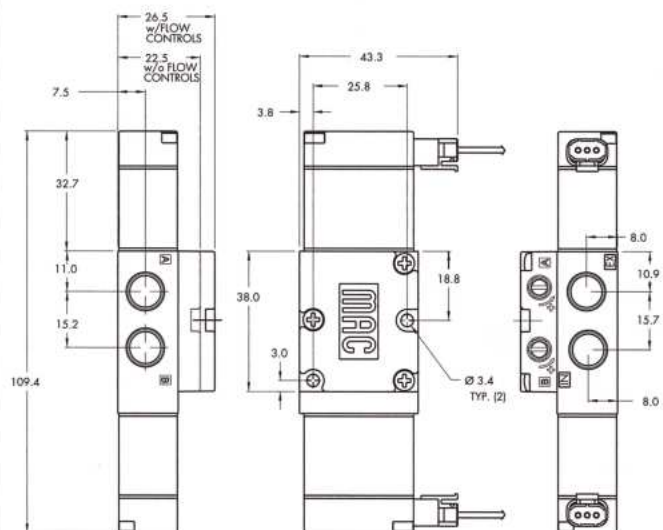
DIMENSIONS

Dimensions shown are metric (mm)

Single solenoid



Double solenoid



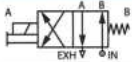
Function	Port size	Flow [Max]	Manifold Mounting	Series
4/2	G1/8" - M5	300 NI/min	Stacking	

OPERATIONAL BENEFITS

- Balanced poppet, immune to variations of pressure.
- Patented solenoid develops high shifting forces.
- Short stroke with high flow.
- Higher forces result in lower wattages for given flow.
- Powerful return spring.



HOW TO ORDER

Port size	Without flow controls	With flow controls
		
G1/8"	46A-SC1-J XXX-XXX	46A-SC2-J XXX-XXX
M5	46A-SD1-J XXX-XXX	46A-SD2-J XXX-XXX

SOLENOID OPERATOR ➤

J **XXX-XXX*** (-G) Add "G" for ground

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120 V~/5,4W	A	45 cm	1	Non-locking	BA	Flying leads
DA	24 V~/5,4W	B	60 cm	2	Locking	JA	Square connector
DB	12 V~/5,4W	C	90 cm			JC	Square connector with light
DC	24 V~/2,4W					JB	Rectangular connector
DD	12 V~/2,4W					JD	Rectangular connector with light
						KA	Mini square connector
						KD	Mini square connector with light

* Other options available, see page 393.
 Note : - AC voltage requires connector with rectifier.
 - With the MAC JAC, washdown capability is possible. Consult factory for washdown modification number.

End plate kit required (port size 1/4") : M-46001-01P.

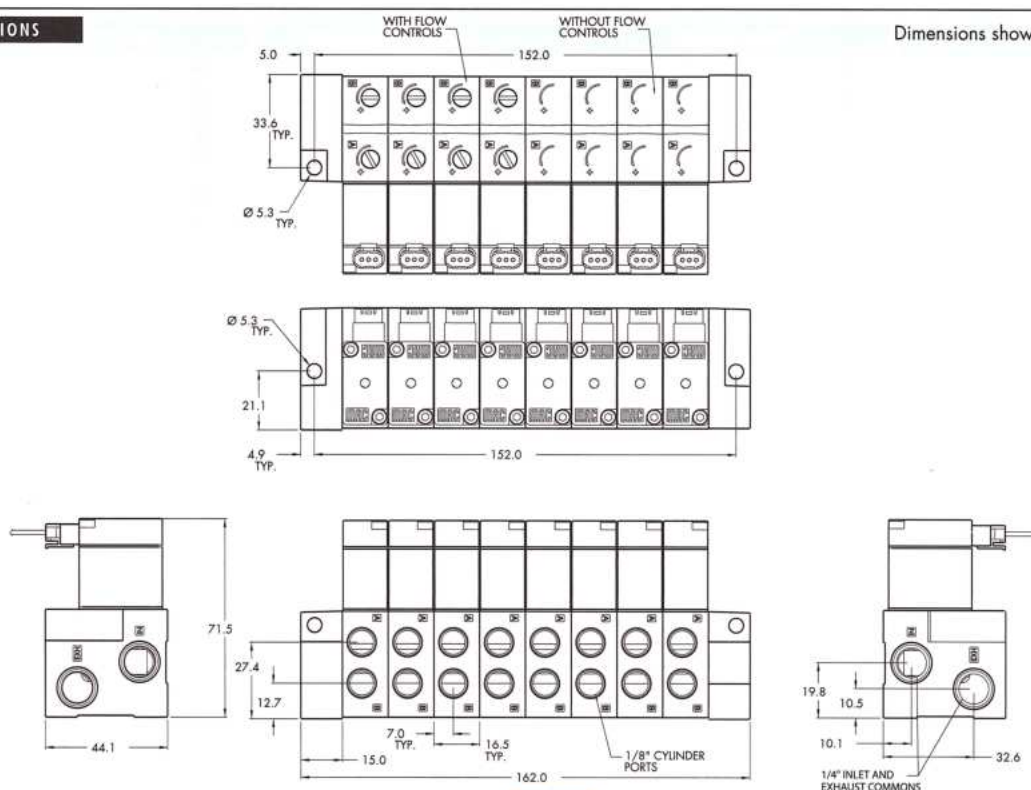
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 :	3,3 mm
Flow (at 6 bar, ΔP=1 bar) :	1,8W : 200 NI/min (Cv 0,20) – 2,4W : 200 NI/min (Cv 0,20) – 5,4W : 300 NI/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W
Response times :	Energize : 7,20 ms De-energize : 4,20ms

- Options :
- NPTF threads
- Spare parts :
- Inlet isolator : 28494 • Exhaust isolator : 28493 • Tie rod (x2) : 79411

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Manifold mounting	Series
4/2	G1/8"	300 NI/min	Manifold base "plug-in"	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Single solenoid	Double solenoid
Valve less base	46A-L00-00-J XXP-XXX	46A-N00-00-J XXP-XXX
G1/8"	46A-LSB-AC-J XXP-XXX	46A-NSB-BL-J XXP-XXX

SOLENOID OPERATOR ►

J XX P-XXX* (-G) Add "G" for ground

XX Voltage	X Manual operator	XX Electrical connection
Single & double solenoid		
AA 120 V~/5,4W	1 Non-locking	FA Base plug-in
AC 24 V~/5,4W	2 Locking	FB Base plug-in with diode
DA 24 V~/5,4W		FG Base plug-in with rectifier
DB 12 V~/5,4W		
Single solenoid only		
DC 24 V~/2,4W		
DD 12 V~/2,4W		

* Other options available, see page 393.
Notes : - AC voltage requires connector with rectifier.
- Double solenoid requires minimum 5,4 watts.

OPTIONS

46A-LSB-AC-JXXP-XXX

- C Single solenoid - Side cylinder ports
- L Single & double solenoid - Bottom cylinder ports
- O Base only - no valve
- L Single solenoid - Base mount body
- M Single solenoid - Base mount body with gage port
- N Double solenoid - Base mount body
- P Double solenoid - Base mount body with gage port

Example : base only : 46A-0SB-AC.
End plate kit required (port size G1/4") : M-46003-01P.

TECHNICAL DATA

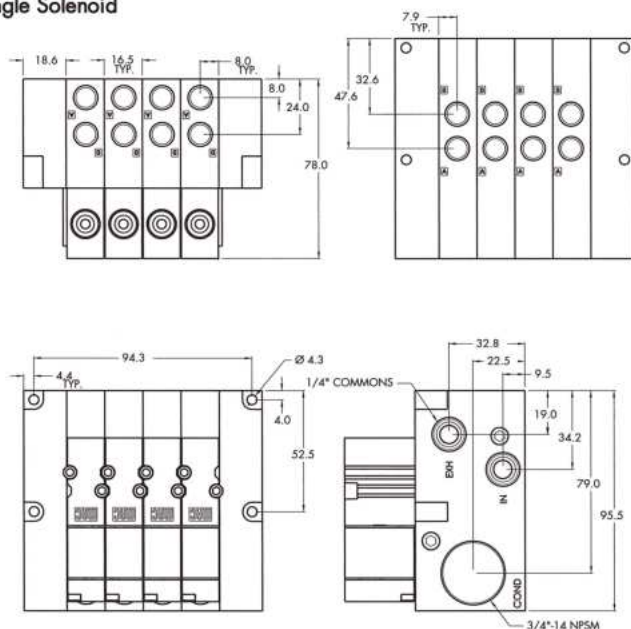
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 8 bar
Lubrication :	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
Filtration :	40 µ
Temperature range :	-18°C to +50°C
Orifice :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	1,8W : 200 NI/min (Cv 0,20) – 2,4W : 200 NI/min (Cv 0,20) – 5,4W : 300 NI/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W
Response times :	Energize : 7,20 ms De-energize : 4,20ms

- Options : • NPTF threads
- Spare parts : • Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002
• Tie rod (x2) : 79443

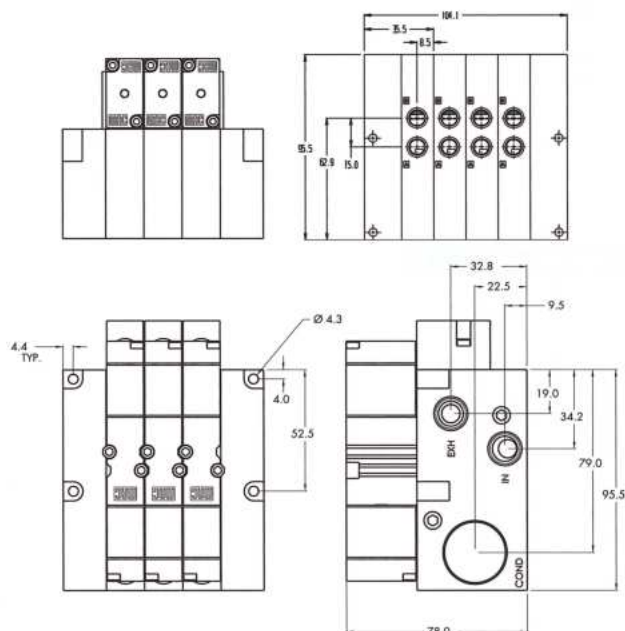
DIMENSIONS

Dimensions shown are metric (mm)

Single Solenoid



Double solenoid



Function	Port size	Flow (Max)	Manifold mounting	Series
4/2	G1/8"	300 NI/min	Manifold base "plug-in" with pressure regulators	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Model number
Valve less base	46A-L00-00-J XX P- XXX
G1/8"	46A-LSB-AJ-J XX P- XXX



SOLENOID OPERATOR ►

J **XX** P-**XXX*** (-G) Add "G" for ground

XX Voltage	X Manual operator	XX Electrical connection
AA 120V~/5,4W	1 Non-locking	FA Base plug-in
DA 24V~/5,4W	2 Locking	FB Base plug-in with diode
DB 12V~/5,4W		FG Base plug-in with rectifier
DC 24V~/2,4W		

* Other options available, see page 393.
Note : AC voltage requires connector with rectifier.

OPTIONS

46A-LSB-AJ-J**XX**P-**XXX**

- J Regulator with adjusting knob
- E Regulator with slotted stem
- G Regulator with slotted stem with locknut

- O Base only – no valve
- L Base mount body
- M Base mount body with gage port

Example : base only with regulator : 46A-0SB-AJ.
End plate kit required (port size G1/4") : M-46003-01P.

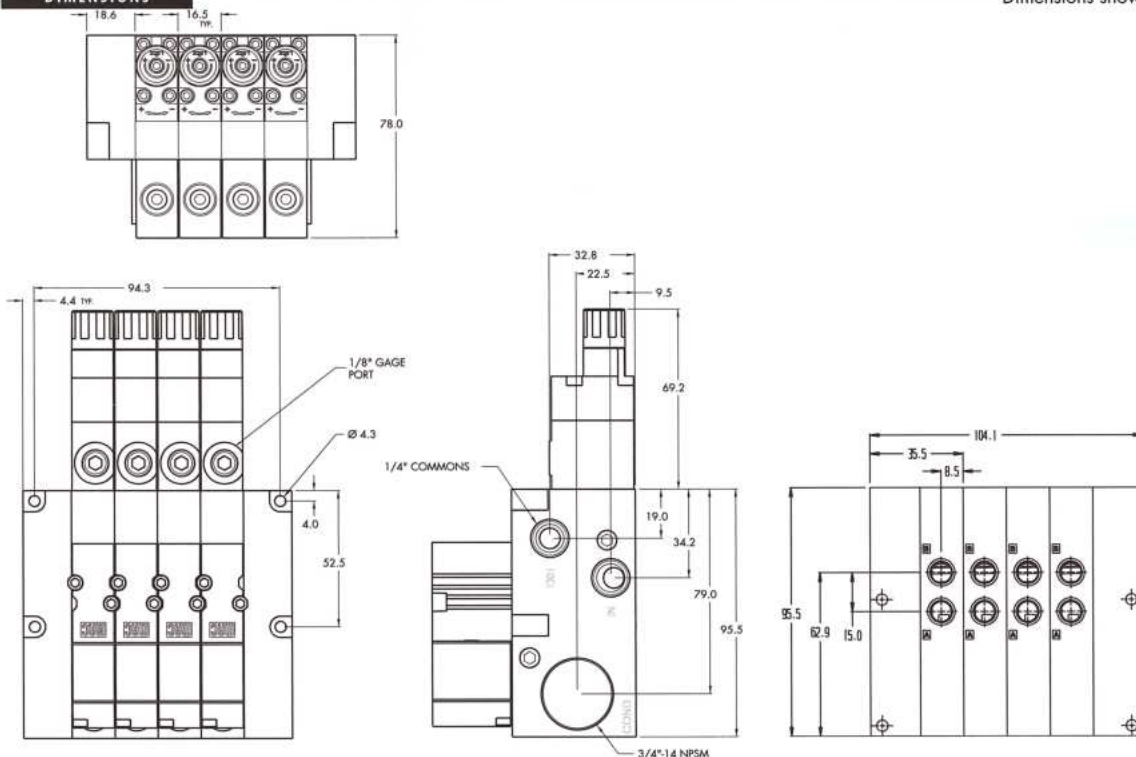
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 :	3,3 mm
Flow (at 6 bar, ΔP=1 bar) :	1,8W : 200 Nl/min (Cv 0,20) – 2,4W : 200 Nl/min (Cv 0,20) – 5,4W : 300 Nl/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W
Response times :	Energize : 7,20 ms De-energize : 4,20ms

- Options :
Spare parts :
- NPTF threads
 - Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002 • Tie rod (x2) : 79443
 - Replacement regulators : PR46A-OAAA (slotted stem)
PR46A-OBAA (adjusting knob)
PR46A-OCAA (slotted stem with locknut)
- Regulating range options : • PR46A-xxxA
- A 0 to 8 bar
 - B 0 to 5,3 bar
 - C 0 to 2 bar

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow (Max)	Manifold mounting	Series
4/2	G1/8"	300 NI/min	Manifold base "plug-in" with flow controls	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Model number
Valve less base	46A-L00-00-J XXP-XXX
G1/8"	46A-LSB-AD-J XXP-XXX

SOLENOID OPERATOR >

J XX P-XXX* (-G) Add "G" for ground

XX Voltage	X Manual operator	XX Electrical connection
AA 120V~/5,4W	1 Non-locking	FA Base plug-in
DA 24V~/5,4W	2 Locking	FB Base plug-in with diode
DB 12V~/5,4W		FG Base plug-in with rectifier
DC 24V~/2,4W		

* Other options available, see page 393.
Note : AC voltage requires connector with rectifier.

OPTIONS

46A-LSB-AJ-JXXP-XXX

D Side cylinder ports
M Bottom cylinder ports

O Base only - no valve
L Base mount body
M Base mount body with gage port

Example : base only with regulator: 46A-0SB-AD.
End plate kit required (port size G1/4") : M-46003-01P.

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 :	3,3 mm
Flow (at 6 bar, ΔP=1 bar) :	1,8W : 200 NI/min (Cv 0,20) – 2,4W : 200 NI/min (Cv 0,20) – 5,4W : 300 NI/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W
Response times :	Energize : 7,20 ms De-energize : 4,20ms

Options :

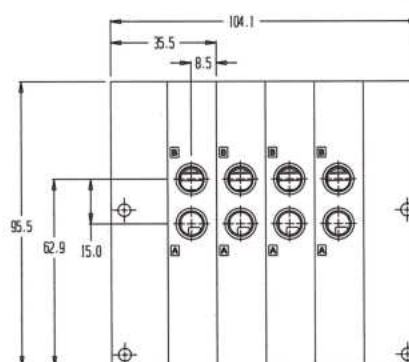
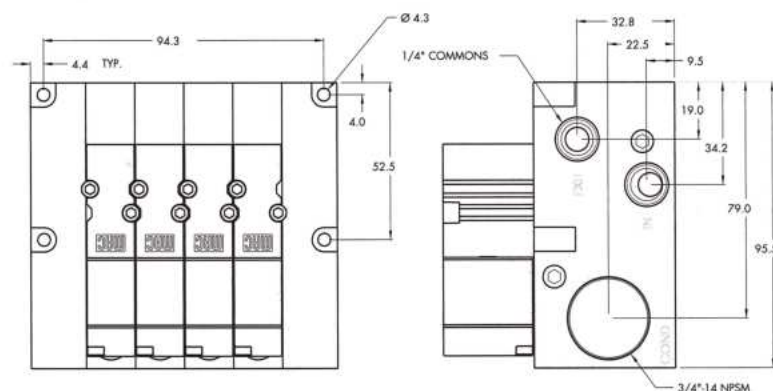
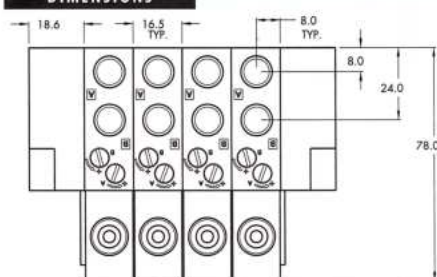
- NPTF threads

Spare parts :

- Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002
- Tie rod (x2) : 79443

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow (Max)	Manifold mounting	Series
4/2	G1/8"	300 NI/min	Manifold base "plug-in" with PR & FC	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Patented solenoid develops high shifting forces.
3. Short stroke with high flow.
4. Higher forces result in lower wattages for given flow.
5. Powerful return spring.



HOW TO ORDER

Port size	Model number
Valve less base	46A-L00-00-J xxP-xxx
G1/8"	46A-LSB-AK-J xxP-xxx

SOLENOID OPERATOR ►

J **xx** P-**xxx*** (-G) Add "G" for ground

xx Voltage	x Manual operator	xx Electrical connection
AA 120V~/5,4W	1 Non-locking	FA Base plug-in
DA 24V~/5,4W	2 Locking	FB Base plug-in with diode
DB 12V~/5,4W		FG Base plug-in with rectifier
DC 24V~/2,4W		

* Other options available, see page 393.
Note : AC voltage requires connector with rectifier.

OPTIONS

46A-LSB-AJ-JxxP-xxx

- K Regulator with adjusting knob & flow controls
- F Regulator with slotted stem & flow controls
- H Regulator with slotted stem with locknut & flow controls
- O Base only – no valve
- L Base mount body
- M Base mount body with gage port

Example : base only with regulator : 46A-OSB-AK.
End plate kit required (port size G1/4") : M-46003-01P.

TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 :	3,3 mm
Flow (at 6 bar, ΔP=1bar) :	1,8W : 200 Nl/min (Cv 0,20) – 2,4W : 200 Nl/min (Cv 0,20) – 5,4W : 300 Nl/min (Cv 0,30)
Coil :	Epoxy encapsulated – Class A wires – 100% ED
Voltage range :	-15% to +10% of nominal voltage
Protection :	IP54 (electrical connection)
Power :	5,4W – 2,4W – 1,0W
Response times :	Energize : 7,20 ms De-energize : 4,20ms

- Options :
- NPTF threads
- Spare parts :
- Inlet isolator : 28501 • Exhaust isolator : 28502 • Valve cover plate : M-46002 • Tie rod (x2) : 79443
 - Replacement regulators : PR46A-OAAA (slotted stem)
PR46A-OBAA (adjusting knob)
PR46A-OCAA (slotted stem with locknut)

- Regulating range options :
- PR46A-xxxA
 - A 0 to 8 bar
 - B 0 to 5,3 bar
 - C 0 to 2 bar

DIMENSIONS

Dimensions shown are metric (mm)

