

Individual mounting

Series

inline

Manifold mounting

stacking	sub-base non "plug-in"	sub-base with pressure regulators
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35

100

200

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58

59

45

700

900

82

6300

6500

6600

1300

800

ISO 1

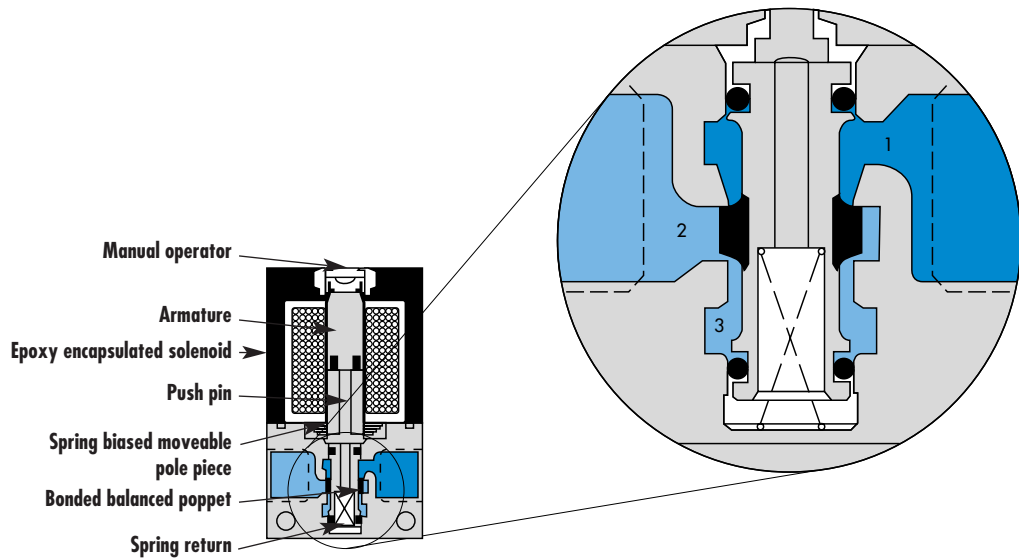
ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A



SERIES FEATURES

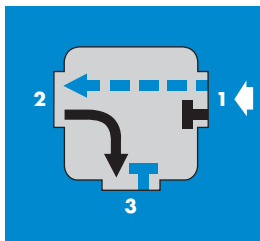
- Patented MACSOLENOID[®] for fastest possible response times.
- Bonded balanced poppet for high flow, precise repeatability, and consistent operation.
- Balanced poppet permits versatility in function — may be used as 3-way or 2-way normally open or normally closed and may be used for vacuum, divertor, 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 (M.O.V. or Diode) available.
- Low wattage DC solenoids — down to 1.8 watts.
- Patented MACSOLENOID[®] — virtually burn-out proof on AC service.

VALVE CONFIGURATIONS AVAILABLE :

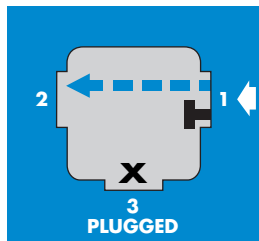
The 35 Series is a miniature 3 way or 2 way valve.
This valve provides extremely fast response, long life and high flow in a surprisingly small package.

- Individual, stacking body or manifold base.
- 3 way—Normally Open or Normally Closed.
- 2 way—Normally Open or Normally Closed.
- Optional Normally Closed Only Models.
- Selectors & Divertors.

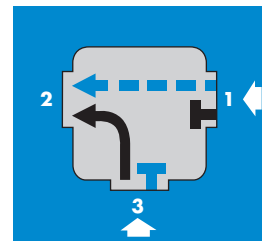
PIPING CHART FOR INDIVIDUAL MODELS



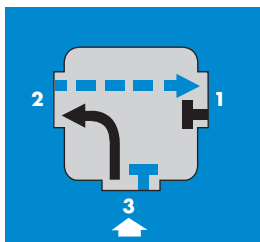
**3 Way
Normally Closed**



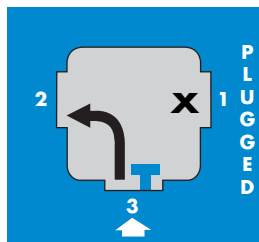
**2 Way
Normally Closed**



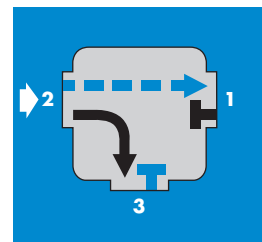
Selector



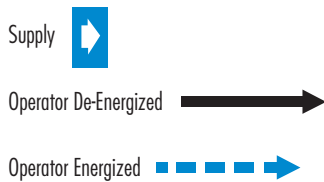
**3 Way
Normally Open**



**2 Way
Normally Open**



Divertor



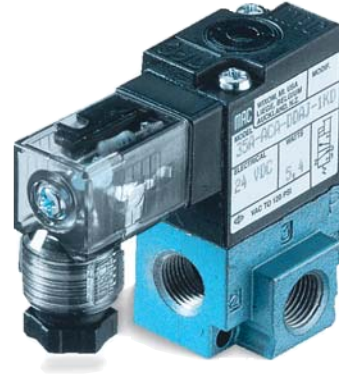


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow (Max)	Individual mounting	Series
3/2 NO-NC, 2/2 NO-NC	1/8"	0.17 C_v	inline	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



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HOW TO ORDER

Port size	Universal valve	NC only valve
1/8" NPTF	35LA-AAA-Dxxx-xxx	35LA-AAB-Dxxx-xxx

45

SOLENOID OPERATOR >

D **XX X- X XX***

xx Voltage	x Wire length	Manual operator	xx Electrical connection
FB 24 VDC (1.8 W)	A 18" (Flying leads)	I Non-locking	KA Square connector
DA 24 VDC (5.4 W)	J Connector		KD Square connector with light
DF 24 VDC (12.7 W)			JB Rectangular connector
			JD Rectangular connector with light
			BA Flying leads

700

900

82

* Other options available, see page 353.

OPTIONS

35LA-CAX-Dxxx-xxx

- with (2) # 10-32 ports in backside of valve

6300

6500

6600

1300

800

ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

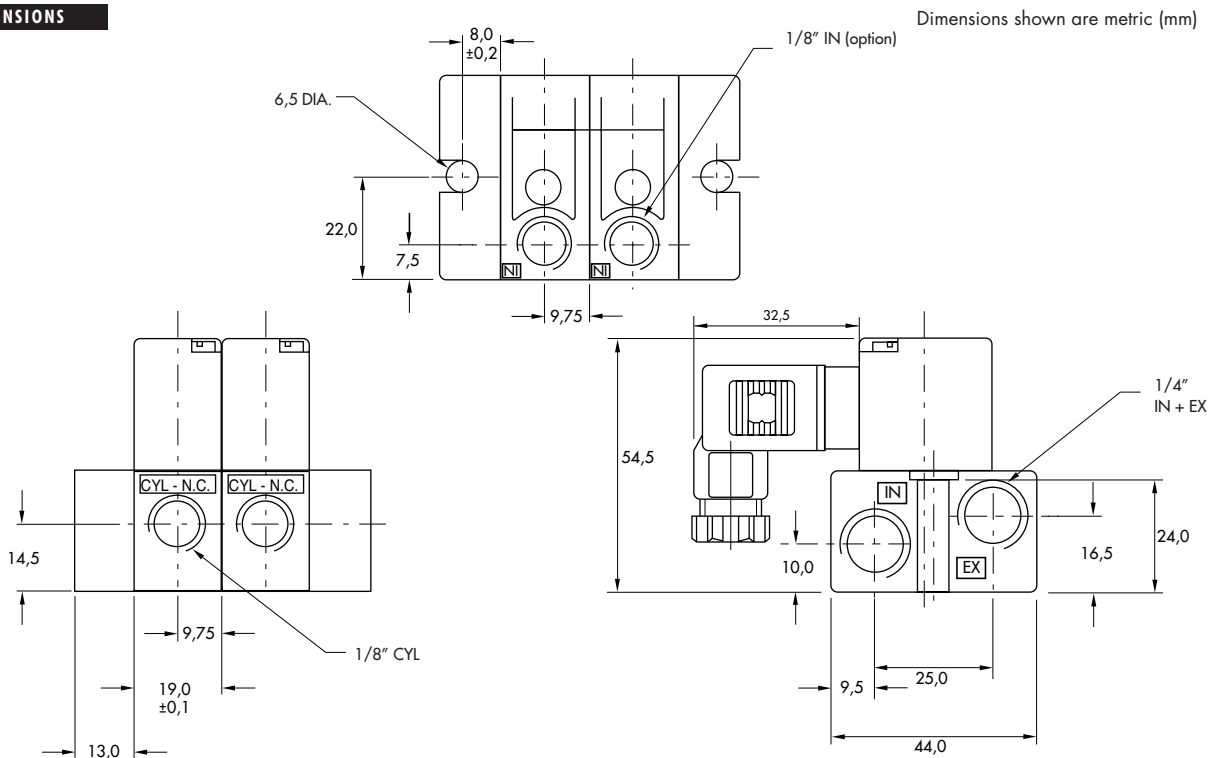
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 (at 6 bar, ΔP=1bar) :	1.8 W : 0.12 C _v , 5.4 to 12.7 W : 0.16 C _v
Coil :	General purpose class A, continuous duty, encapsulated
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	~ Inrush : 10.9 VA Holding : 7.7 VA = 1.8 to 12.7 W
Response times :	24 VDC (5.4 W) Energize : 6 ms De-energize : 2 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
 - Seal (between solenoid and valve body) : 16402. • Pressure seal (between valves) : 16433.
 - Tie-rod (x2) : 19813. • Inlet isolator : N-35002. • Exhaust isolator : N-35003. • Inlet & Exhaust isolator : N-35001.

- Options :
- BSPP threads. • High flow up to 0.25 C_v, according to wattage and high flow mod.

DIMENSIONS



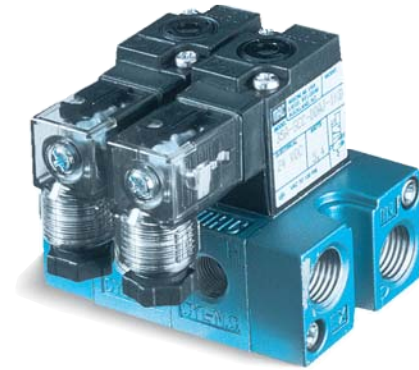


Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow (Max)	Manifold mounting	Series
3/2 NO-NC, 2/2 NO-NC	# 10-32, 1/8"	0.16 C_v	stacking	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



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HOW TO ORDER

Port size	NC only valve	NO only valve
1/8" NPTF	35LA-SAC-Dxxx-xxx	35LA-SAD-Dxxx-xxx
# 10-32 UNF	35LA-SBC-Dxxx-xxx	35LA-SBD-Dxxx-xxx

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SOLENOID OPERATOR >

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
FB 24 VDC (1.8 W)	A 18" (Flying leads)	I Non-locking	KA Square connector
DA 24 VDC (5.4 W)	J Connector		KD Square connector with light
DF 24 VDC (12.7 W)			BA Flying leads

700

900

82

* Other options available, see page 353.

End plate kit required (Port size : 1/4") : M-35001-01
 Note : upon request, manifolds are mounted at the factory.

OPTIONS

35LA-TXX-Dxxx-xxx
 - Bottom Inlet

6300

6500

6600

1300

800

ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

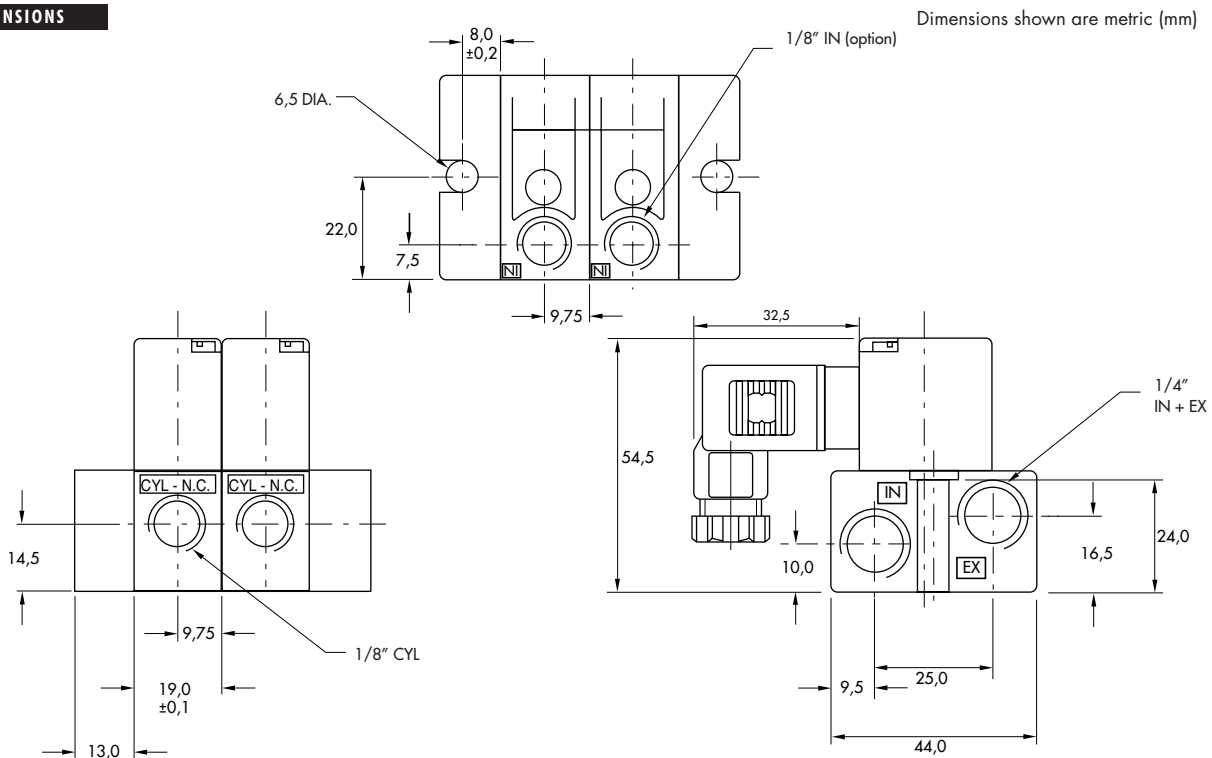
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 (at 6 bar, ΔP=1bar) :	1.8 W : 0.12 C _v , 5.4 to 12.7 W : 0.16 C _v
Coil :	General purpose class A, continuous duty, encapsulated
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	~ Inrush : 10.9 VA Holding : 7.7 VA = 1.8 to 12.7 W
Response times :	24 VDC (5.4 W) Energize : 6 ms De-energize : 2 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
 - Seal (between solenoid and valve body) : 16402. • Pressure seal (between valves) : 16433.
 - Tie-rod (x2) : 19813. • Inlet isolator : N-35002. • Exhaust isolator : N-35003. • Inlet & Exhaust isolator : N-35001.

- Options :
- BSPP threads. • High flow up to 0.25 C_v, according to wattage and high flow mod.

DIMENSIONS





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow (Max)	Manifold mounting	Series
3/2 NO-NC, 2/2 NO-NC	# 10-32, 1/8"	0.10 C_v	sub-base non "plug-in"	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



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100

200

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57

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59

45

700

900

82

6300

6500

6600

1300

800

ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

HOW TO ORDER

SIDE CYLINDER PORTS

Port size	Norm. closed Manifold base	Norm. open Manifold base
Valve less base (universal)	35LA-B00-Dxxx-xxx	35LA-B00-Dxxx-xxx
# 10-32 UNF base	35LA-BBE-Dxxx-xxx	35LA-BBF-Dxxx-xxx
1/8" NPTF base	35LA-BAE-Dxxx-xxx	35LA-BAF-Dxxx-xxx

BOTTOM CYLINDER PORTS

Port size	Norm. closed Manifold base	Norm. open Manifold base
Valve less base (universal)	35LA-B00-Dxxx-xxx	35LA-B00-Dxxx-xxx
# 10-32 UNF base	35LA-BGE-Dxxx-xxx	35LA-BGF-Dxxx-xxx
1/8" NPTF base	35LA-BFE-Dxxx-xxx	35LA-BFF-Dxxx-xxx

SOLENOID OPERATOR ▶

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
FB 24 VDC (1.8 W)	A 18" (Flying leads)	I Non-locking	KA Square connector
DA 24 VDC (5.4 W)	J Connector		KD Square connector with light
DF 24 VDC (12.7 W)			BA Flying leads

* Other options available, see page 353.

End plate kit required (Port size : 1/4") : M-35003-01

Note : upon request, manifolds are mounted at the factory.

OPTIONS

35LA-EXX-Dxxx-xxx	35A-FXX-Dxxx-xxx	35A-OXX
- N.C. only valve	- universal w/gage port	- no valve body (base only)

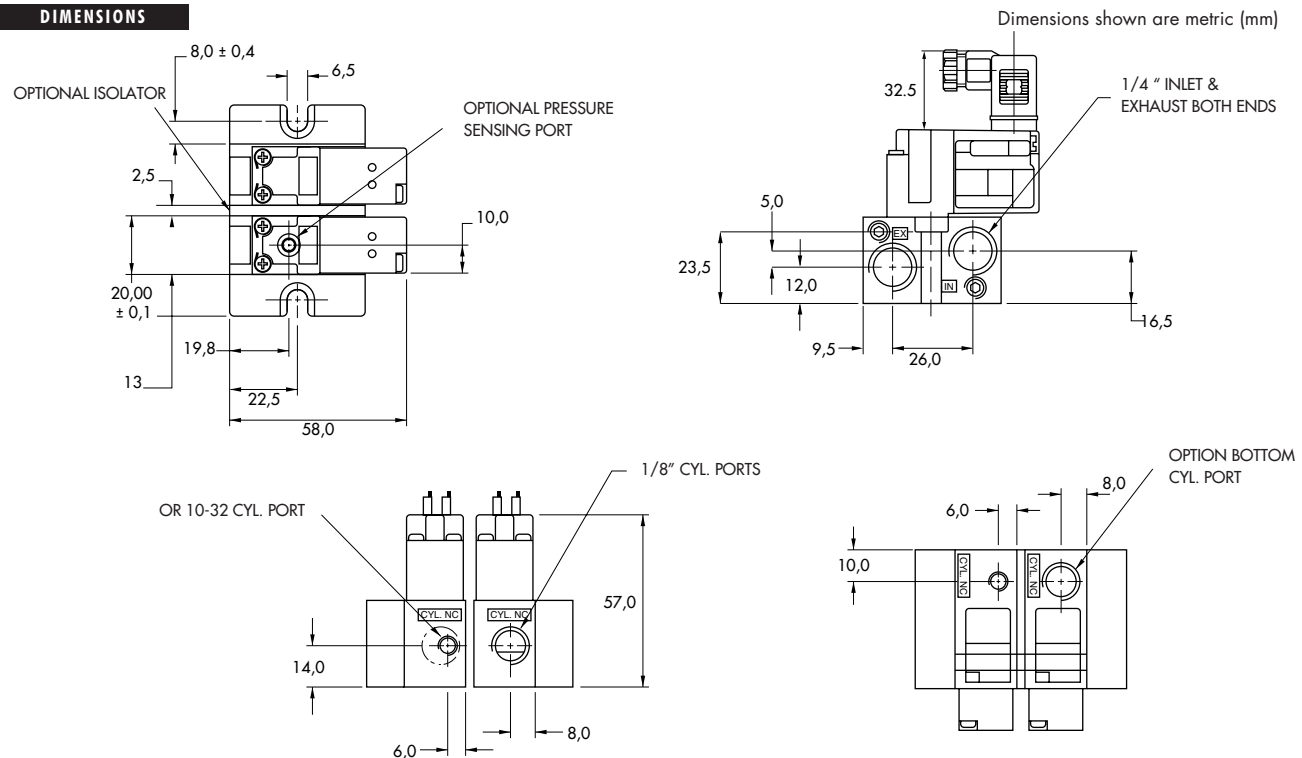
TECHNICAL DATA

Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum 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 (at 6 bar, ΔP=1bar) :	1.8 W : 0.09 C _v , 5.4 to 12.7 W : 0.1 C _v
Coil :	General purpose class A, continuous duty, encapsulated
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	~ Inrush : 10.9 VA Holding : 7.7 VA = 1.8 to 12.7 W
Response times :	24 VDC (5.4 W) Energize : 6 ms De-energize : 2 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
 - Seal (between solenoid and valve body) : 16402. • Pressure seal (between valve and base) : 16447.
 - Pressure seal (between bases) : 16461. • Tie-rod (x2) : 19753. • Inlet isolator : N-35007. • Exhaust isolator : N-35008.
 - Inlet & Exhaust isolator : N-35006.

- Options :
- BSPP threads. • High flow up to 0.18 C_v, according to wattage and high flow mod.

DIMENSIONS





Direct solenoid and solenoid pilot operated valves

Function	Port size	Flow (Max)	Manifold mounting	Series
3/2 NO-NC, 2/2 NO-NC	# 10-32, 1/8"	0.10 C_v	sub-base with pressure regulators	

OPERATIONAL BENEFITS

1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



35

100

200

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57

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59

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700

900

82

6300

6500

6600

1300

800

ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

HOW TO ORDER

SIDE CYLINDER PORTS

Port size	Norm. closed Manifold base	Norm. open Manifold base
Valve less base (universal)	35LA-B00-Dxxx-xxx	35LA-B00-Dxxx-xxx
# 10-32 UNF base	35LA-BBJ-Dxxx-xxx	35LA-BBK-Dxxx-xxx
1/8" NPTF base	35LA-BAJ-Dxxx-xxx	35LA-BAK-Dxxx-xxx

BOTTOM CYLINDER PORTS

Port size	Norm. closed Manifold base	Norm. open Manifold base
Valve less base (universal)	35LA-B00-Dxxx-xxx	35LA-B00-Dxxx-xxx
# 10-32 UNF base	35LA-BGJ-Dxxx-xxx	35LA-BGK-Dxxx-xxx
1/8" NPTF base	35LA-BFJ-Dxxx-xxx	35LA-BFK-Dxxx-xxx

SOLENOID OPERATOR >

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
FB 24 VDC (1.8 W)	A 18" (Flying leads)	I Non-locking	KA Square connector
DA 24 VDC (5.4 W)	J Connector		KD Square connector with light
DF 24 VDC (12.7 W)			BA Flying leads

* Other options available, see page 353.

End plate kit required (Port size : 1/4") : M-35003-01

Note : upon request, manifolds are mounted at the factory.

OPTIONS

35LA-EXX-Dxxx-xxx	35A-FXX-Dxxx-xxx	35A-OXX
- N.C. only valve	- universal w/gage port	- no valve body (base w/regulator)

TECHNICAL DATA

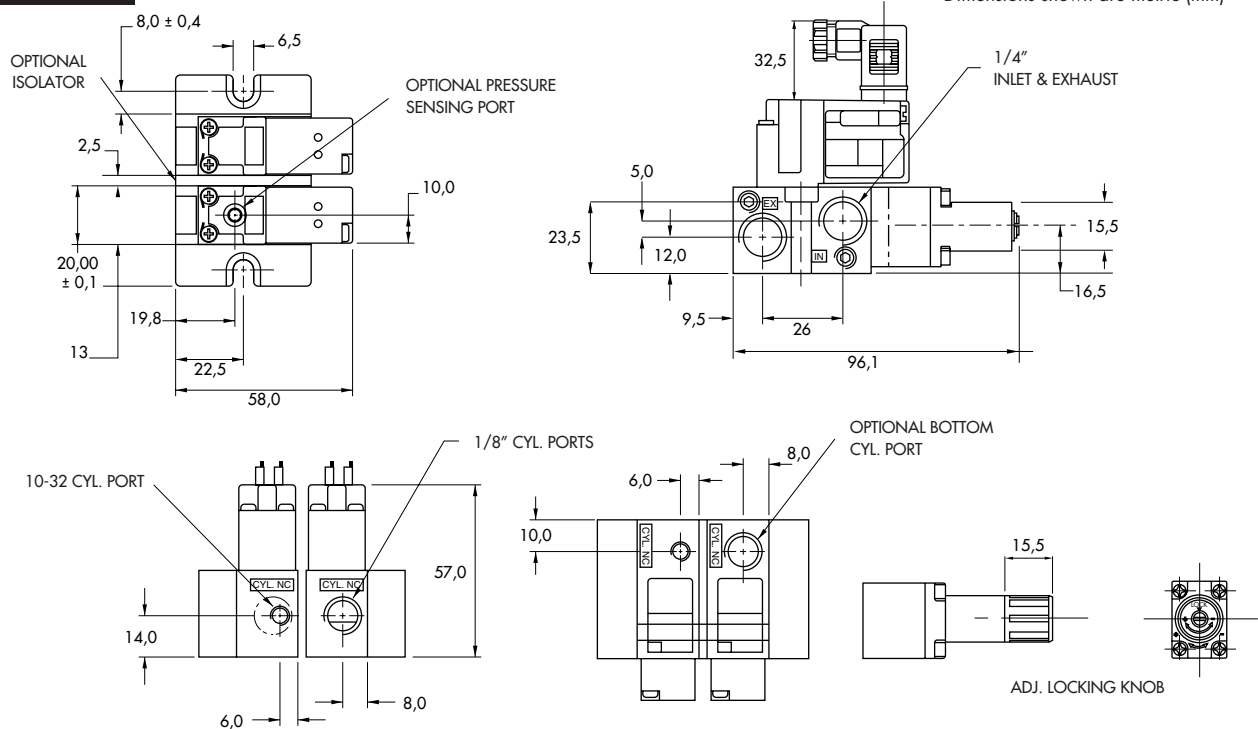
Fluid :	Compressed air, vacuum, inert gases
Pressure range :	Vacuum to 120 PSI
Lubrication :	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
Filtration :	40 µ
Temperature range :	0°F to 120°F (-18°C to 50°C)
Flow (at 6 bar, ΔP=1bar) :	1.8 W : 0.09 C _v , 5.4 to 12.7 W : 0.1 C _v
Coil :	General purpose class A, continuous duty, encapsulated
Voltage range :	-15% to +10% of nominal voltage
Protection :	Consult factory
Power :	~ Inrush : 10.9 VA Holding : 7.7 VA = 1.8 to 12.7 W
Response times :	24 VDC (5.4 W) Energize : 6 ms De-energize : 2 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
 - Seal (between solenoid and valve body) : 16402. • Pressure seal (between valve and base) : 16447.
 - Pressure seal (between bases) : 16461. • Tie-rod (x2) : 19753. • Inlet isolator : N-35007. • Exhaust isolator : N-35008.
 - Inlet & Exhaust isolator : N-35006. • Pressure regulator : 35A-00M (ADJ, KNOB) - 35A-00L (SLOTTED STEM).

- Options :
- BSPP threads. • High flow up to 0.18 C_v, according to wattage and high flow mod.

DIMENSIONS

Dimensions shown are metric (mm)





0 p t i o n s

Codification table for voltages / Wire length / Manual operators / Electrical connections

VALVE CODE >

-DXX X - X XX
1 2 3 4

OPTIONS AVAILABLE FOR

- Solenoid valves 35L Series

1. VOLTAGE

- D XX X - X XX VOLTAGE

DA	24 VDC (5.4 W)
DB	12 VDC (5.4 W)
DC	12 VDC (7.5 W)
DD	24 VDC (7.3 W)
DE	12 VDC (12.7 W) - CLSFonly
DF	24 VDC (12.7 W) - CLSF only
DK	110 VDC (4.7 W)
DL	64 VDC (6 W)
DM	36 VDC (5.3 W)
DN	6 VDC (6 W)
DP	48 VDC (5.8 W)
DU	24 VDC (6 W)
EA	12 VDC (6 W)
FA	12 VDC (1.8 W)
FB	24 VDC (1.8 W)
FE	12 VDC (2.4 W)
FF	24 VDC (2.4 W)

2. WIRE LENGTH

- D XX X - X XX WIRE LENGTH

A	18"
B	24"
C	36"
D	48"
E	72"
F	96"
J	For external plug-in connector ("J", "K" & "T" type electrical connection)

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
BK	BA with protection diode
BL	BA with protection varistor (M.O.V.)
** CA	1/2" NPS conduit
** CM	1/2" NPS metal conduit
** CN	1/2" NPS metal conduit w/ground
** JB	Rectangular connector
** JD	Rectangular connector with light
** JM	Rectangular connector, male only
KA	Square connector
KB	Square connector with protection diode
KC	Square connector with protection varistor (M.O.V.)
KD	Square connector with light
KE	Square connector with light and protection diode
KF	Square connector with light and protection varistor (M.O.V.)
KG	Square connector with LED light & diode
KJ	Square connector (male only)
KK	Square connector with protection diode (male only)
KL	Square connector with protection varistor (male only) (M.O.V.)
TA	Dual tabs
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
DA*	Plug-in connector
DK*	DA with protection diode
DL*	DA with protection varistor (M.O.V.)
FM	Plug-in
FN	Plug-in with diode
FP	Plug-in with M.O.V.

* To be used with 82 Series only
 ** Inline valves only for 35 & 45 series. No restrictions for 82 series.