

Individual mounting

inline	sub-base non "plug-in"
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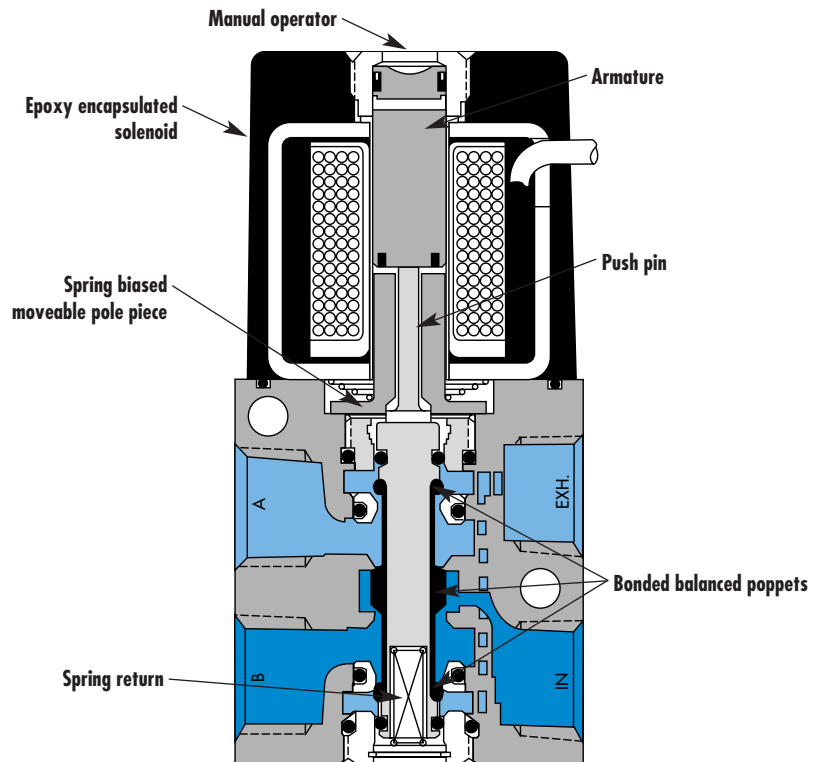
Series

Manifold mounting

stacking	sub-base non "plug-in"	sub-base with pressure regulators	sub-base with pressure regulators and flow controls
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ISO 1

ISO 2

ISO 3

MAC 125A

MAC 250A

MAC 500A

SERIES FEATURES

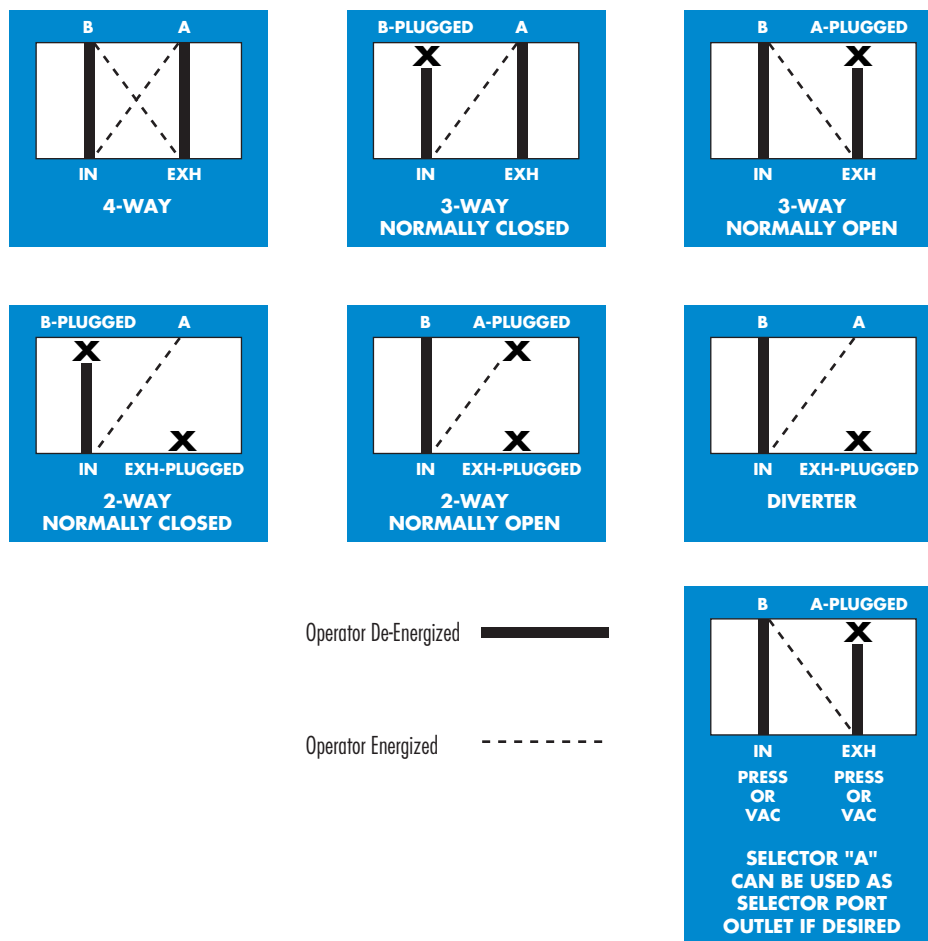
- Single and double solenoid or remote air.
- The patented MACSOLENOID® for fastest possible response times.
- Bonded balanced poppets for high flow, precise repeatability, and consistent operation.
- Balanced poppet design permits versatility in piping. Valves can be piped as 4-way, 3-way or 2-way, normally closed or normally open or can be used for vacuum, diverter or selector applications.
- Use on lube or non-lube service.
- Extremely high cycle rates.
- Extremely long service life due to unique poppet cushions.
- Manual overrides as standard.
- Various solenoid enclosures and plug-in connectors
- Optional surge suppression available.
- Low wattage DC solenoids — down to 1.8 watts.
- Patented MACSOLENOID® — virtually burn-out proof on AC service.

VALVE CONFIGURATIONS AVAILABLE

- 2-position single and double solenoid or remote air.
- Single pressure (4 or 5 ports)
- Individual, stacking and manifold base mounted models.
- Integral individual exhaust flow controls with common exhaust port.
- Integral regulators and flow controls on manifolds.

SPECIAL APPLICATIONS :

The balanced poppet design facilitates using the same valve for many functions and can be used for pressure, vacuum or plugged without the necessity of changing any parts. Piping suggestions are shown in the chart below.



Function	Port size	Flow [Max]	Individual mounting	Series
4/2	#10-32 - 1/8"	0.15 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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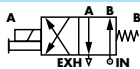
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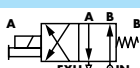
6300
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ISO 1
ISO 2
ISO 3
MAC 125A
MAC 250A
MAC 500A

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5.4W)
		
1/8" NPTF	45A-AA1-Dxxx-xxx	45A-GA1-Dxxx-xxx
# 10-32 UNF	45A-AB1-Dxxx-xxx	45A-GB1-Dxxx-xxx

WITH INTEGRATED FLOW CONTROLS

Port size	Single operator	Double operator (Minimum DC wattage 5.4W)
		
1/8" NPTF	45A-AA2-Dxxx-xxx	45A-GA2-Dxxx-xxx
# 10-32 UNF	45A-AB2-Dxxx-xxx	45A-GB2-Dxxx-xxx

SOLENOID OPERATOR ►

D **XX X- X XX***

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

* Other options available, see page 353.

BOTTOM PORT OPTIONS (O'RING MOUNT)

45A-XXX-D xxx-xxx

- D-Sgl. oper. - All ports
- F-Sgl. oper. - "A" & "B" ports
- H-Dbl. oper. - All ports
- J-Dbl. oper. - "A" & "B" ports

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 : (0.1 C _v), 5.4 W : (0.15 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

Spare parts :

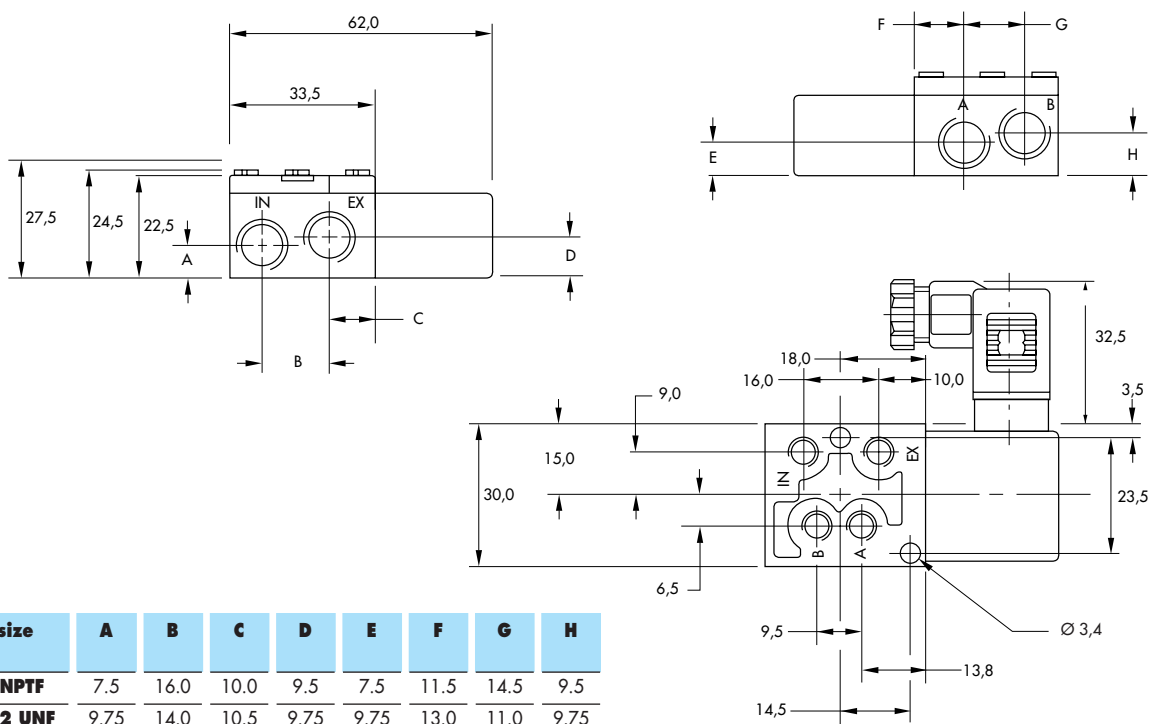
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal (between solenoid and valve body) : 16402. • Valve cover plate with flow controls : N-45002.

Options :

- BSPP threads. • High flow up to 0.23 C_v, according to wattage and high flow Mod. • NAMUR interface - 45A-FA1DXXX-XXX and required NAMUR adapter kit: N-45028-03 (for 3-way operation) - N-45028-04 (for 4-way operation).

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Individual mounting	Series
4/2	#10-32 - 1/8"	0.13 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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ISO 1

ISO 2

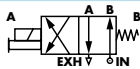
ISO 3

MAC 125A

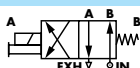
MAC 250A

MAC 500A

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAA-Dxxx-xxx	45A-NAA-Dxxx-xxx
#10-32 UNF base	45A-LBA-Dxxx-xxx	45A-NBA-Dxxx-xxx

WITH INTEGRATED FLOW CONTROLS

Port size	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAB-Dxxx-xxx	45A-NAB-Dxxx-xxx
#10-32 UNF base	45A-LBB-Dxxx-xxx	45A-NBB-Dxxx-xxx

SOLENOID OPERATOR >

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
AA 120/60, 110/50	A 18" (Flying leads)	1 Non-locking	KA Square connector
AB 240/60, 220/50	J Connector	2 Locking	KD Square connector with light
AC 24/60, 24/50			BA Flying leads
FB 24 VDC (1.8 W)			
DA 24 VDC (5.4 W)			
DF 24 VDC (12.7 W)			

* Other options available, see page 353.

OPTIONS

45A-LAA-D **xxx-xxx**

Substitute "J" for 1/8" bottom cylinder ports

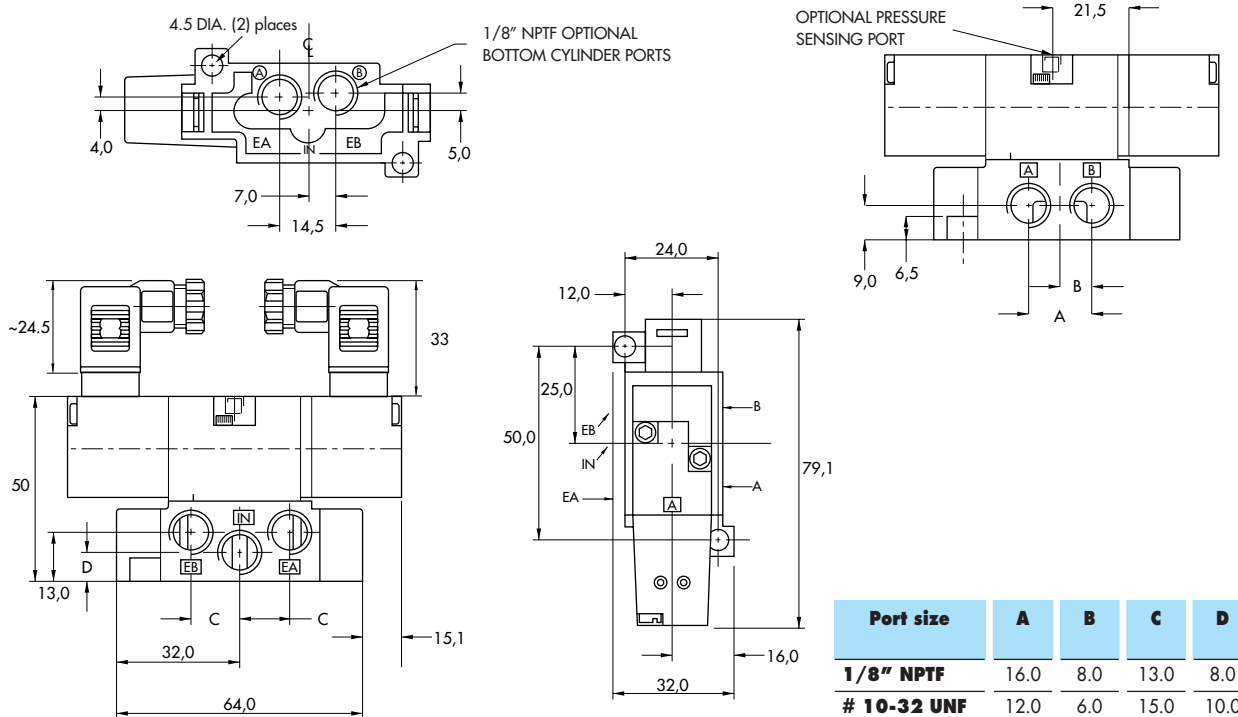
TECHNICAL DATA

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 : (0.11 C _v), 5.4 W : (0.13 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

- Spare parts :
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
 - Seal (between solenoid and valve body) : 16402. • Seal between base and valve : 16453. • Flow control : N-45018.
- Options :
- BSPP threads. • High flow up to 0.20 C_v, according to wattage and high flow mod.

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Manifold mounting	Series
4/2	# 10-32 - 1/8"	0.20 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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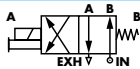
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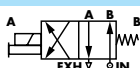
800

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

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5,4W)
		
1/8" NPTF	45A-SA1-Dxxx-xxx	45A-TA1-Dxxx-xxx
# 10-32 UNF	45A-SB1-Dxxx-xxx	45A-TB1-Dxxx-xxx

WITH INTEGRATED FLOW CONTROLS

Port size	Single operator	Double operator
		
1/8" NPTF	45A-SA2-Dxxx-xxx	45A-TA2-Dxxx-xxx
# 10-32 UNF	45A-SB2-Dxxx-xxx	45A-TB2-Dxxx-xxx

SOLENOID OPERATOR >

D **XX X- X XX***

XX	Voltage	X	Wire length	X	Manual operator	XX	Electrical connection
AA	120/60, 110/50	A	18" (Flying leads)	1	Non-locking	KA	Square connector
AB	240/60, 220/50	J	Connector	2	Locking	KD	Square connector with light
AC	24/60, 24/50					BA	Flying leads
FB	24 VDC (1.8 W)						
DA	24 VDC (5.4 W)						
DF	24 VDC (12.7 W)						

* Other options available, see page 353.

End plate kit required (Port size 1/4" NPTF) : M-45001-01.

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 : (0.14 C _v), 5.4 W : (0.2 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

Spare parts :

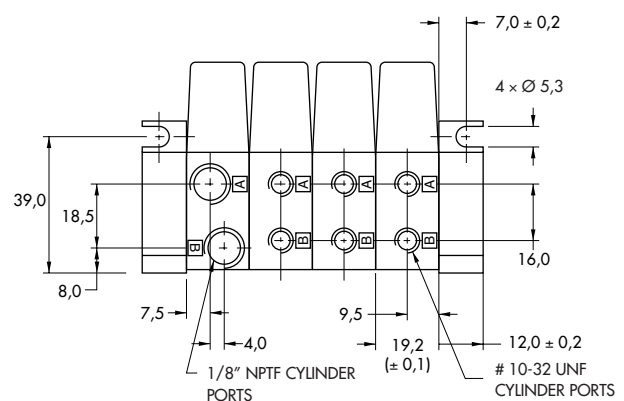
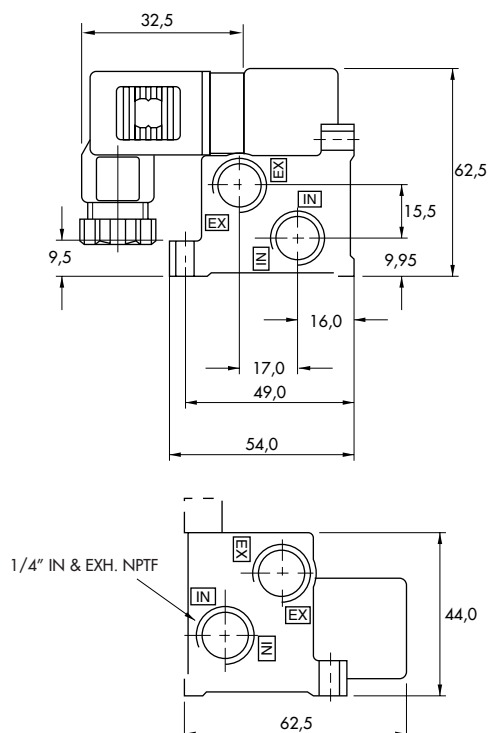
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal (between solenoid and valve body) : 16402. • Seal between valves : 16422. • Tie-rod (x2) : 19813.
- Valve cover plate with flow controls : N-45004.
- Inlet & exhaust isolator : N-45005. Inlet isolator : N-45006. Exhaust isolator : N-45007

Options :

- BSPP threads. • High flow up to 0.3 C_v, according to wattage and high flow mod.

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Manifold mounting	Series
4/2	# 10-32 - 1/8"	0.11 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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ISO 1

ISO 2

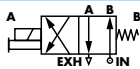
ISO 3

MAC 125A

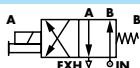
MAC 250A

MAC 500A

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5.4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAC-Dxxx-xxx	45A-NAC-Dxxx-xxx
# 10-32 UNF base	45A-LBC-Dxxx-xxx	45A-NBC-Dxxx-xxx

WITH INTEGRATED FLOW CONTROLS

Port size	Single operator	Double operator (Minimum DC wattage 5.4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAD-Dxxx-xxx	45A-NAD-Dxxx-xxx
# 10-32 UNF base	45A-LBD-Dxxx-xxx	45A-NBD-Dxxx-xxx

SOLENOID OPERATOR ►

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
AA 120/60, 110/50	A 18" (Flying leads)	1 Non-locking	KA Square connector
AB 240/60, 220/50	J Connector	2 Locking	KB Square connector with light
AC 24/60, 24/50			BA Flying leads
FB 24 VDC (1.8 W)			
DA 24 VDC (5.4 W)			
DF 24 VDC (12.7 W)			

* Other options available, see page 353.

End plate kit required (Port size 1/4" NPTF) : M-45008-01

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 W : (0.11 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

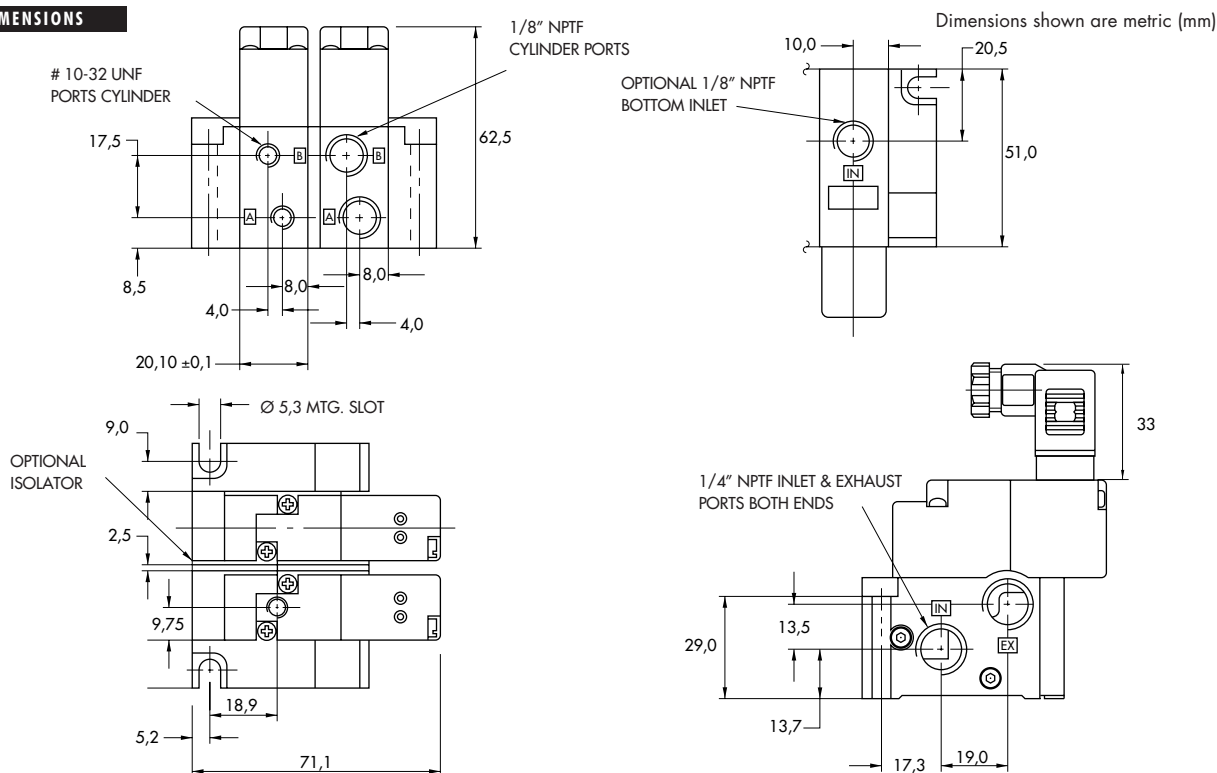
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal (between solenoid and valve body) : 16402. • Seal between base and valve : 16453. • Seal between bases : 16455.
- Tie-rod (x2) : 19753. • Side cover plate with flow controls : N-45016.
- Inlet & exhaust isolator : N-45008. • Inlet isolator : N-45009. • Exhaust isolator : N-45010.

Options :

- BSPP threads. • High flow up to 0.18 C_v, according to wattage and high flow Mod. • Bottom inlet : specify Mod. 0210.

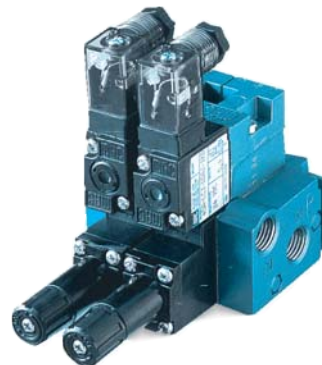
DIMENSIONS



Function	Port size	Flow [Max]	Manifold mounting	Series
4/2	# 10-32 - 1/8"	0.11 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.



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ISO 1

ISO 2

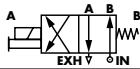
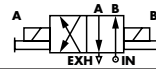
ISO 3

MAC 125A

MAC 250A

MAC 500A

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAJ-Dxxx-xxx	45A-NAJ-Dxxx-xxx
# 10-32 UNF base	45A-LBJ-Dxxx-xxx	45A-NBJ-Dxxx-xxx

SOLENOID OPERATOR ➤

D **XX X- X XX***

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
AA 120/60, 110/50	A 18" (Flying leads)	1 Non-locking	KA Square connector
AB 240/60, 220/50	J Connector	2 Locking	KD Square connector with light
AC 24/60, 24/50			BA Flying leads
FB 24 VDC (1.8 W)			
DA 24 VDC (5.4 W)			
DF 24 VDC (12.7 W)			

* Other options available, see page 353.

End plate kit required (Port size 1/4" NPTF) : M-45008-01.

Options (with gauge port) : Single operator : replace L by M.
Double operator : replace N by P.

REGULATOR OPTIONS

45A-XXJ-D xxx-xxx ("J" is for Adj. knob)

- Replace with "E" for slotted stem
- Replace with "G" for locking slotted stem

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 W : (0.11 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

Spare parts :

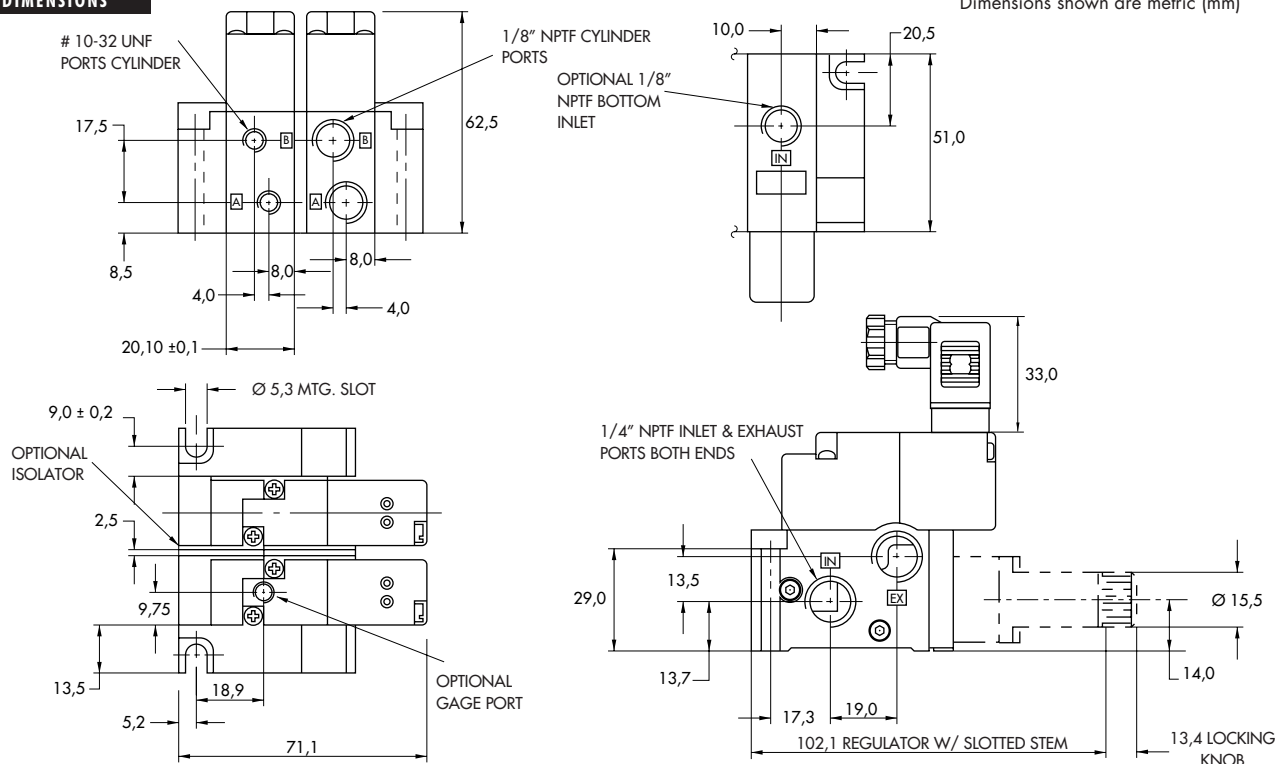
- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal (between solenoid and valve body) : 16402. • Seal between base and valve : 16453. • Seal between bases : 16455.
- Tie-rod (x2) : 19753. • Pressure regulator : 45A-00R (Adj. Knob), 45A-00L (Slotted Stem), 45A-00M (Locking Slotted Stem).
- Inlet & exhaust isolator : N-45008. • Inlet isolator : N-45009. • Exhaust isolator : N-45010.

Options :

- BSPP threads. • High flow up to 0.18 C_v, according to wattage and high flow mod. • Bottom inlet : specify Mod. 0210.

DIMENSIONS

Dimensions shown are metric (mm)



Function	Port size	Flow [Max]	Manifold mounting	Series
4/2	# 10-32 - 1/8"	0.11 C_v	sub-base with pressure regulators and flow controls	

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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ISO 1

ISO 2

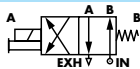
ISO 3

MAC 125A

MAC 250A

MAC 500A

HOW TO ORDER

Port size	Single operator	Double operator (Minimum DC wattage 5,4W)
		
Valve less base	45A-L00-Dxxx-xxx	45A-N00-Dxxx-xxx
1/8" NPTF base	45A-LAK-Dxxx-xxx	45A-NAK-Dxxx-xxx
# 10-32 UNF base	45A-LBK-Dxxx-xxx	45A-NBK-Dxxx-xxx

SOLENOID OPERATOR ►

XX Voltage	X Wire length	X Manual operator	XX Electrical connection
AA 120/60, 110/50	A 18" (Flying leads)	1 Non-locking	KA Square connector
AB 240/60, 220/50	J Connector	2 Locking	KD Square connector with light
AC 24/60, 24/50			BA Flying leads
FB 24 VDC (1.8 W)			
DA 24 VDC (5.4 W)			
DF 24 VDC (12.7 W)			

* Other options available, see page 353.

End plate kit required (Port size 1/4" NPTF) : M-45008-01.

Options (with gauge port) : Single operator : replace L by M
Double operator : replace N by P.

REGULATOR AND F.C. OPTIONS

45A-XXK-D xxx-xxx ("K" option is for Adj. knob and F.C.)

Replace with "F" for slotted stem and F.C.

Replace with "H" for locking slotted stem and F.C.

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 W : (0.11 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
	120/60	Energize : 3-8 ms	De-energize : 2-7 ms

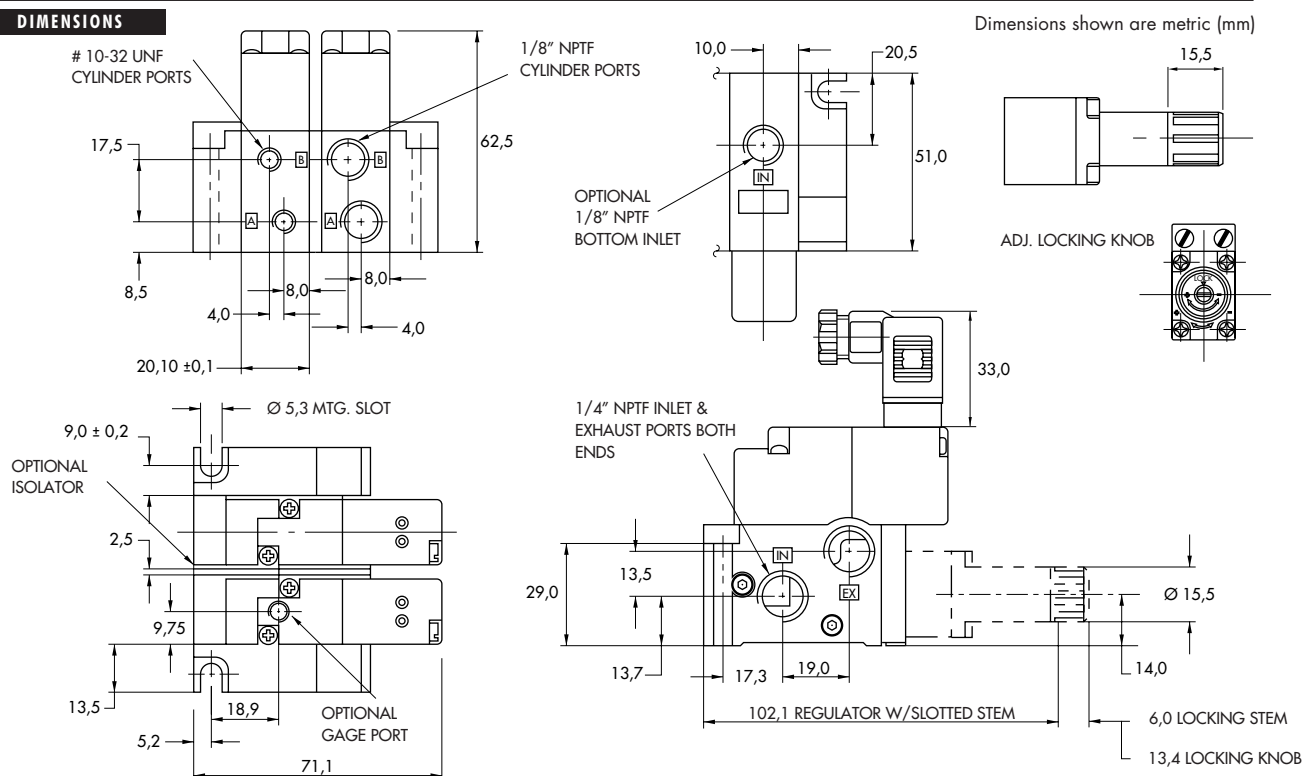
Spare parts :

- Solenoid operator (power ≥ 5.4 W) : DXXX-XXX, including mounting screws 35013.
- Seal (between solenoid and valve body) : 16402. • Seal between base and valve : 16453. • Seal between bases : 16455.
- Tie-rod (x2) : 19753. • Pressure regulator with flow controls : 45A-00N (Slotted Stem), 45A-00P (Locking Slotted Stem), 45A-00S(Adj. Knob). • Inlet & exhaust isolator : N-45008. • Inlet isolator : N-45009. • Exhaust isolator : N-45010.

Options :

- BSPP threads. • High flow up to 0.18 C_v, according to wattage and high flow Mod. • Bottom inlet : specify Mod. 0210.

DIMENSIONS



HOW TO ORDER

BODY OPTIONS
SOLENOID OPTIONS
35A - X X X - (DXXX - XXX) - FM

BODY TYPE	PORT SIZE	VALVE FUNCTION/MANIFOLD TYPE
Inline A Individual Inline D Indiv. Inline w/2 Manifold Mount Ports	O Manifold Body Only B #10-32 UNF (Inline Only) D M5 (Inline Only)	O Manifold Body Only B 3 way N.C. Only (Inline)
Manifold E Manifold Body (N.C. Only) G Manifold Body w/Gage Port (N.C. Only)		

Note : there is no manifold base for the 35 series.
The manifold valve can only mount to a circuit bar, see note below

BODY OPTIONS
SOLENOID OPTIONS
45A - X X X - (DXXX - XXX) - FM

BODY TYPE	PORT SIZE	VALVE FUNCTION/MANIFOLD TYPE
Inline A 4 Port Body B 5 Port Body D 4 Port Body "O" Ring Mount -All Bottom Ports E 5 Port Body "O" Ring Mount -3 Bottom Ports Inlet and Cylinders F 4 Port Body "O" Ring Mount-Bottom Cylinder Ports Only	O Manifold Body Only A 1/8" NPT B #10-32 UNF C 1/8" BSPPL D M5 (Metric) F #10-32 UNF Bottom Ports G M5 Bottom Ports H "O" Ring Mount Ports J 1/8" NPT Bottom Ports K 1/8" BSPPL Bottom Ports	Inline 1 No Flow Controls Bases - Regulators O Valve Only - No Base A Individual Base C Manifold Base E Manifold w/Regulator w/Slotted Stem G Manifold w/Regulator w/Locking Slotted Stem J Manifold w/Regulator w/Locking Knob
Base Mount O For Base Only - No Valve L Base Mount Body M Base Mount Body with Gage Port		

MANIFOLD MOUNT ACCESSORIES

M-45008-01	End Plate Kit
16455	Pressure Seal Between Manifold
19753	Tie Rod
N-45008	Isolator Kit - Inlet and Exhaust
N-45009	Isolator Kit - Inlet only
N-45010	Isolator Kit - Exhaust only
N-45015	End Cover Plate - Plain
N-45016	End Cover Plate w/Flow Controls
N-45017	Flow Control Needle Assembly

SOLENOID OPTIONS
D - X X X - X X X - FM

VOLTAGE	LEAD LENGTH	MANUAL OPERATOR	ELECTRICAL CONNECTION
FR 12VDC (0.6 W) FS 24VDC (0.6 W)	A 18" Leads B 24" Leads C 36" Leads D 48" Leads E 72" Leads J* 6" Leads	0 No operator 1 Non-locking Recessed 2 Locking Recessed 3 Non-locking Extended 4 Locking Extended	BA Grommet CA Conduit 1/2" NPS† CM Metal Conduit 1/2" NPS† CN Metal Conduit w/grd. 1/2" NPS† External Plug-in FM Plug-in (For ECD & ECE Bar) JB Rectangular Plug-in† JM Rectangular Male only† KA Mini Plug-in KJ Mini Plug-in Male only TA Dual Tabs (.110) Plain TJ Dual Tabs (.110) Plain

*Use "J" for external plug-in connectors

† Available on individual valves and circuit bars.

NOTE : For valves mounted to a circuit bar reference MAC circuit bar Catalog for ordering info.
For the 35 series circuit bar, use MOD FM01 after circuit bar part number.



0 p t i 0 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 35, 45 and 82 Series



1. VOLTAGE

- D XX	X - X XX	VOLTAGE
AA		120/60, 110/50
AB		240/60, 220/50
AC		24/60, 24/50
AD		24/60
AE		200/60
AF		240/50
AG		100/50, 100/60, 110/60
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)
P		For plug-in valves (82 Series only)

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.