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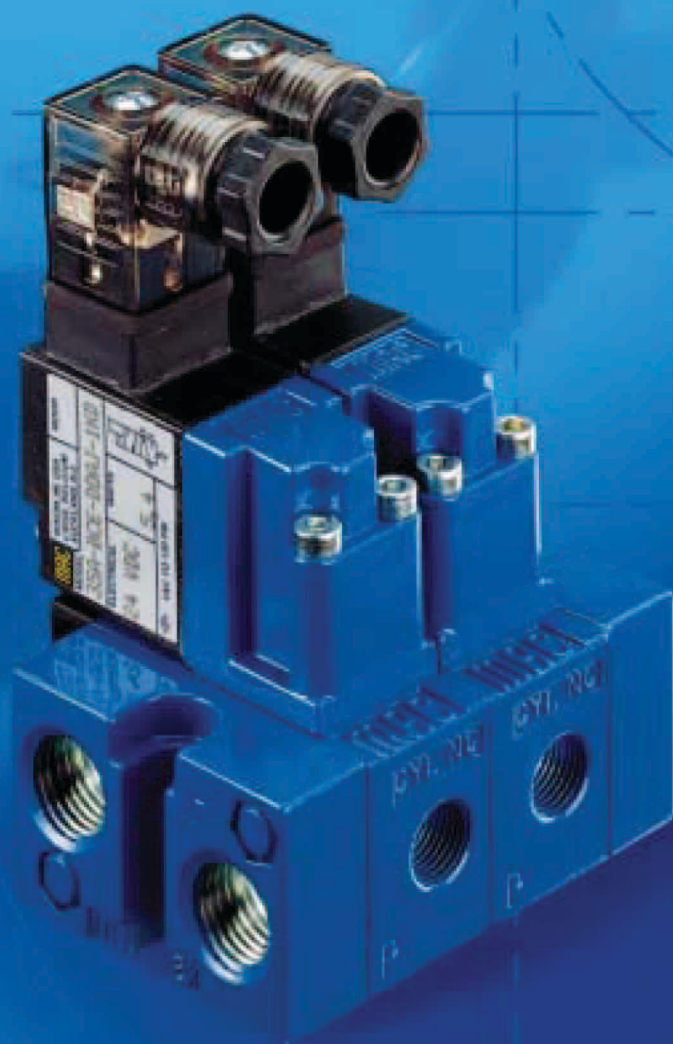
MAC

V A L V E S



LDA

Solutions for Life



A i r V a l v e s

Individual mounting

inline

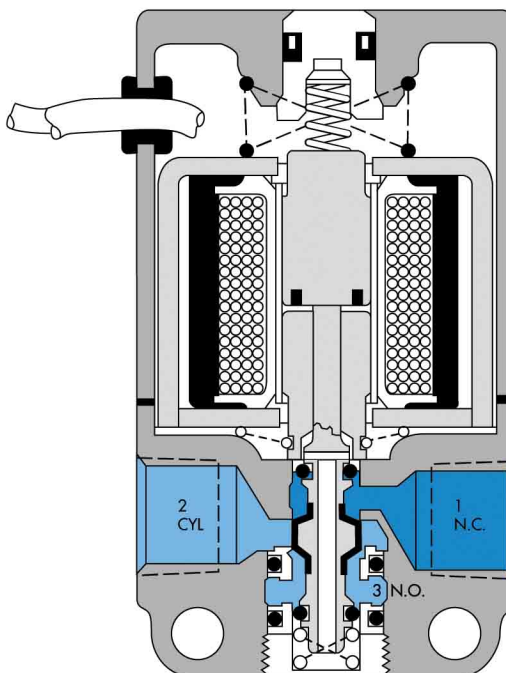
Manifold mounting

stacking

sub-base

Circuit bar mounting

cylinder ports
in base



Function	Port size	Flow [Max]	Individual mounting
3/2 NO-NC, 2/2 NO-NC	G1/8" - G1/4"	180 NI/min	inline

OPERATIONAL BENEFITS

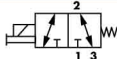
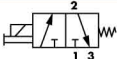
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



HOW TO ORDER

Reset

XXXX-XXyZZ

Port size	Universal valve	NC only valve
		
G1/8"	☐ 116B-XXyZZ	☐ 166B-XXyZZ
G1/4"	☐ 117B-XXyZZ	☐ 167B-XXyZZ

SOLENOID OPERATOR ►

XX Y ZZ*		
XX Voltage	Y Manual operator	ZZ Electrical connection
☐ 11 110V~/50Hz	☐ 1 Non-locking	☐ JB Rectangular connector
☐ 12 220V~/50Hz	☐ 2 Locking	☐ JD Rectangular connector with light
☐ 22 24V~/50Hz	☐ y Other Options	☐ JA Square connector
☐ 59 24V=/2,5W		☐ JC Square connector with light
☐ 87 24V=/17,1W		☐ BA Flying leads (45 cm)
☐ 61 24V=/8,5W		☐ zz Other Options
☐ xx Other Options		

**TECHNICAL
DATA**

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Vacuum to 10 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 +60°C		
Orifice :	2 mm		
Flow (at 6 bar, ΔP=1bar) :	180 Nl/min (C _v 0.18)		
Leak rate :	50 cm ³ /min		
Coil :	Epoxy encapsulated - class A wires - 100% ED (specify mod 0449)		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	IP 65		
Power :	~ Inrush : 14.8 VA Holding : 10.9 VA = 1 to 17 W		
Response times :	24 V=8.5 W	Energize : 7 ms	De-energize : 2 ms
	50Hz/6 W	Energize : 3-8 ms	De-energize : 2-7 ms

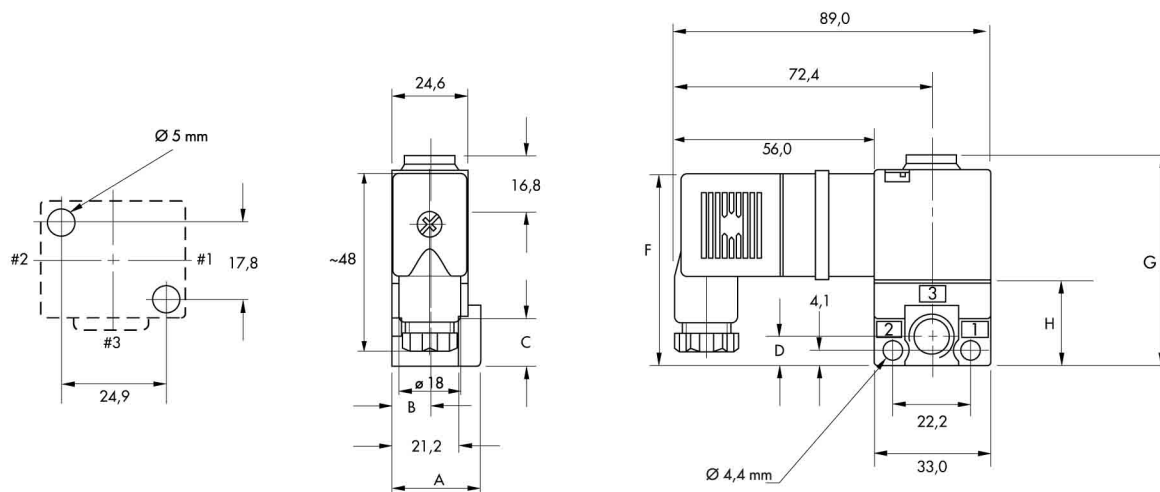
Spare parts :

- Solenoid operator (power ≥ 4 W) : D1-XXYZZ, including mounting screws 32184 and seal 16234.

Options :

- NPTF threads.

DIMENSIONS



PORT SIZE	A	B	C	D	E	F	G	H
G1/8"	28,4	12,7	14,0	8,0	40,1	64,9	60,1	23,2
G1/4"	29,8	13,3	12,7	9,9	40,9	65,8	60,9	24,1

Function	Port size	Flow [Max]	Manifold mounting
3/2 NO-NC, 2/2 NO-NC	G1/8" - G1/4"	180 NI/min	stacking

OPERATIONAL BENEFITS

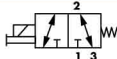
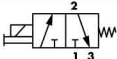
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



HOW TO ORDER

Reset

XXXX-XXyZZ

Port size	Universal valve	NC only valve
		
G1/8"	☐ 186B-XXYZZ	☐ 188B-XXYZZ
G1/4"	☐ 187B-XXYZZ	☐ 189B-XXYZZ

SOLENOID OPERATOR ►

XX Voltage	Y Manual operator	ZZ Electrical connection
☐ 11 110V~/50Hz	☐ 1 Non-locking	☐ JB Rectangular connector
☐ 12 220V~/50Hz	☐ 2 Locking	☐ JD Rectangular connector with light
☐ 22 24V~/50Hz	☐ y Other Options	☐ BA Flying leads (45 cm)
☐ 39 24V=/2,5W		☐ zz Other Options
☐ 87 24V=/17,1W		
☐ 61 24V=/8,5W		
☐ xx Other Options		

End plate kit (Port size G1/4") : M-01001-01P

**TECHNICAL
DATA**

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Vacuum to 10 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 +60°C		
Orifice :	2 mm		
Flow (at 6 bar, ΔP=1bar) :	180 Nl/min (C _v 0.18)		
Leak rate :	50 cm ³ /min		
Coil :	Epoxy encapsulated - class A wires - 100% ED (specify mod 0449)		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	IP 65		
Power :	~ Inrush 14.8 VA Holding : 10.9 VA DC : 1 to 17.1 W		
Response times :	24 V=8.5 W	Energize : 7 ms	De-energize : 2 ms
	50Hz/6 W	Energize : 3-8 ms	De-energize : 2-7 ms

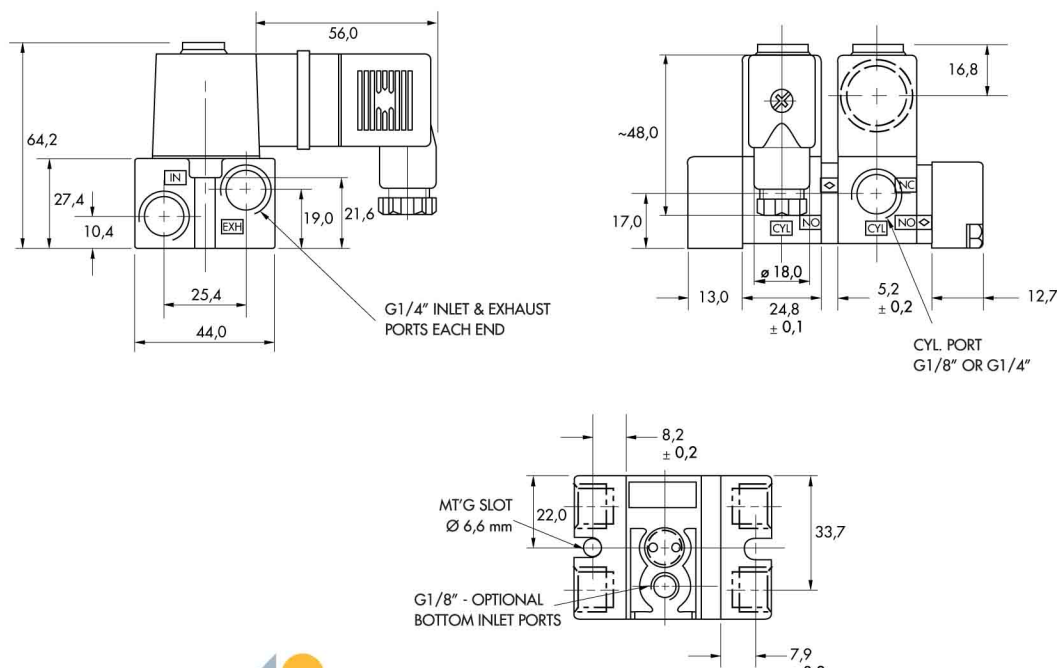
Spare parts :

- Solenoid operator (power ≥ 4 W) : D1-XXYZZ1, including mounting screws 35206 and seal 16234.
- Function plate : N-01002. • Tie-rod (x2) : 19674.

Options :

- NPTF threads. • Isolation of inlet and/or exhaust.

DIMENSIONS



Function	Port size	Flow [Max]	Manifold mounting
3/2 NO-NC, 2/2 NO-NC	G1/8"	140 NI/min	sub-base

OPERATIONAL BENEFITS

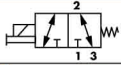
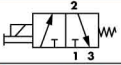
1. Balanced poppet, immune to variations of pressure.
2. Short stroke with high flow.
3. The patented solenoid develops high shifting forces.
4. Powerful return spring.
5. Manual operator standard on all valves.
6. Burn-out proof solenoid on AC service.



HOW TO ORDER

Reset

XXXX-XXYYZZ

Port size	Universal valve	NC only valve
		
Valve less base	☐ 130B-XXYYZZ	☐ 170B-XXYYZZ
G 1/8" base	☐ 136B-XXYYZZ	☐ 176B-XXYYZZ

SOLENOID OPERATOR ►

XX Y ZZ*		
XX Voltage	Y Manual operator	ZZ Electrical connection
☐ 11 110V~/50Hz	☐ 1 Non-locking	☐ JB Rectangular connector
☐ 12 220V~/50Hz	☐ 2 Locking	☐ JD Rectangular connector with light
☐ 22 24V~/50Hz	☐ y Other Options	☐ BA Flying leads (45 cm)
☐ 59 24V=/2,5W		☐ zz Other Options
☐ 87 24V=/17,1W		
☐ 61 24V=/8,5W		
☐ xx Other Options		

End plate kit (Port size : G1/4") : A2-5004-01P

**TECHNICAL
DATA**

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Vacuum to 10 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 +60°C		
Orifice :	2 mm		
Flow (at 6 bar, ΔP=1bar) :	140 Nl/min (C _v 0.14)		
Leak rate :	50 cm ³ /min		
Coil :	Epoxy encapsulated - class A wires - 100% ED (specify mod 0449)		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	IP 65		
Power :	~ Inrush : 14.8 VA Holding : 10.9 VA = 1 to 17 W		
Response times :	24 V=8.5 W	Energize : 7 ms	De-energize : 2 ms
	50Hz/6 W	Energize : 3-8 ms	De-energize : 2-7 ms

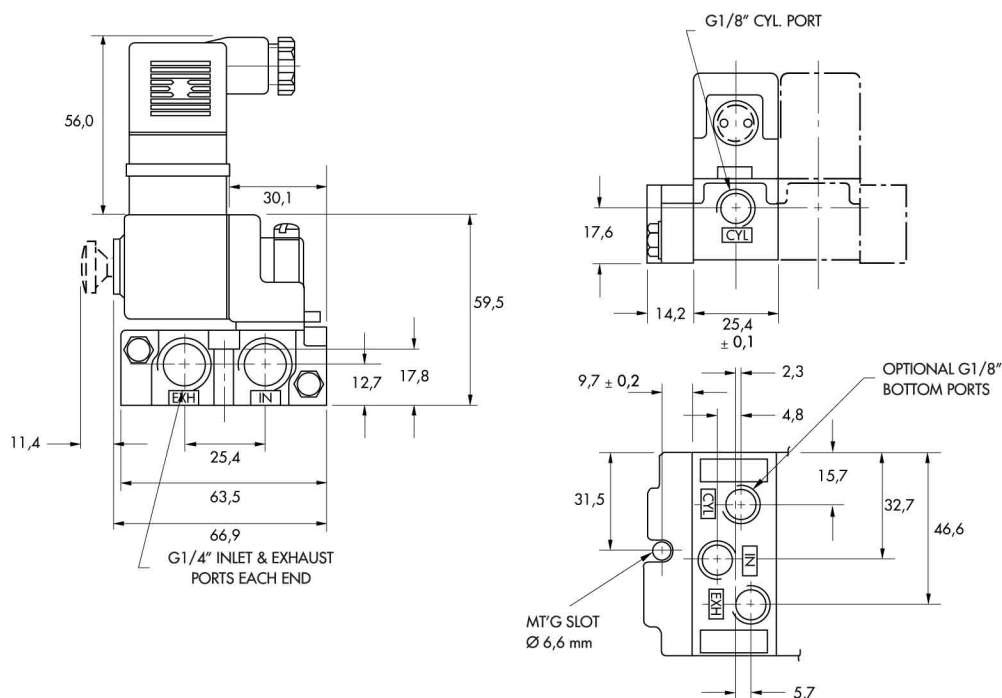
Spare parts :

- Solenoid operator (power ≥ 4 W) : D1-XXYZZ, including mounting screws 32184 and seal 16234.
- Function plate : A2-7009. • Seal between manifold bases : 16226. • Tie-rod (x2) : 19546.

Options :

- NPTF threads. • Isolation of inlet and/or exhaust.

DIMENSIONS



Function	Port size	Flow [Max]	Circuit bar mounting
3/2 NO-NC, 2/2 NO-NC	G1/8"	150 NI/min	cylinder ports in base

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.

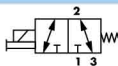
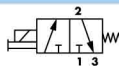


HOW TO ORDER

Reset

XXXX-XXyZZ

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

	Universal valve	NC only valve
		
Valve less base	☐ 130B-XXyZZ	☐ 170B-XXyZZ

SOLENOID OPERATOR >

XX Voltage	Y Manual operator	ZZ Electrical connection
☐ 11 110V~/50Hz	☐ 1 Non-locking	☐ JB Rectangular connector
☐ 12 220V~/50Hz	☐ 2 Locking	☐ JD Rectangular connector with light
☐ 22 24V~/50Hz	☐ y Other Options	☐ BA Flying leads (45 cm)
☐ 59 24V=/2,5W		☐ zz Other Options
☐ 87 24V=/17,1W		
☐ 61 24V=/8,5W		
☐ xx Other Options		

HOW TO ORDER CIRCUIT BAR**

Port size	Spacing	Side cylinder ports	Bottom cylinder ports
G1/8"	26 mm	☐ EBM10-011C-xx	☐ EBM10-012C-xx
G1/8"	40 mm	☐ EBM10-021C-xx	☐ EBM10-022C-xx

** Other options available. Consult factory.

Number of stations (03=3 stations)

Note: ☐ click for valves mounted on base at the factory (add -9 to the model number).

**TECHNICAL
DATA**

Fluid :	Compressed air, vacuum, inert gases		
Pressure range :	Vacuum to 10 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 +60°C		
Orifice :	2 mm		
Flow (at 6 bar, ΔP=1bar) :	150 Nl/min (C _v 0.15)		
Leak rate :	50 cm ³ /min		
Coil :	Epoxy encapsulated - class A wires - 100% ED (specify mod 0449)		
Voltage range :	-15% to +10% of nominal voltage		
Protection :	IP 65		
Power :	~ Inrush 14.8 VA Holding : 10.9 VA = 1 to 17 W		
Response times :	24 V=8.5 W	Energize : 7 ms	De-energize : 2 ms
	50Hz/6 W	Energize : 3-8 ms	De-energize : 2-7 ms

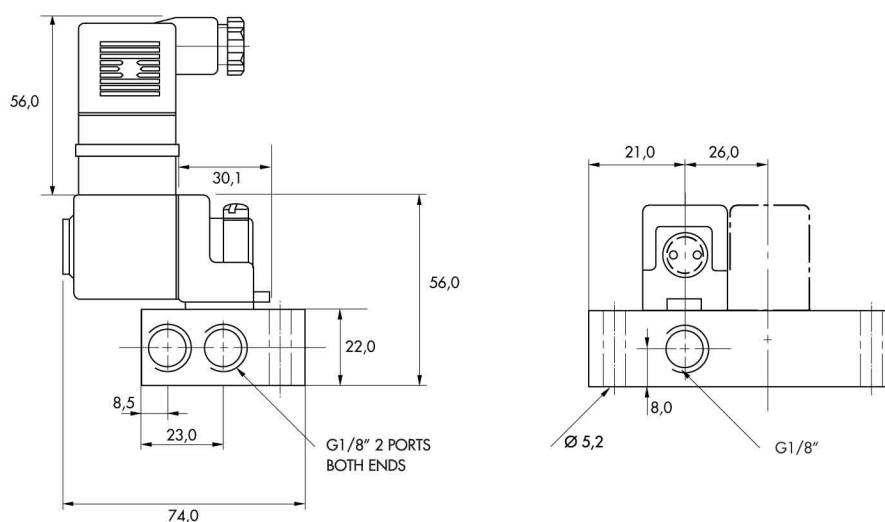
Spare parts :

- Solenoid operator (power ≥ 4 W) : D1-XXYZZ, including mounting screws 32184 and seal 16234.
- Function plate : A2-7009. • Blanking plate : E144.

Options :

- NPTF threads. • Isolation of inlet and/or exhaust.

DIMENSIONS





0 p t i o n s

Codification table for voltages / Manual operator / Electrical connection / Wire length

VALVE CODE ➤ **$\frac{-XX}{1} \frac{Y}{2} \frac{ZZ}{3} \frac{(-VV)}{4}$**

OPTIONS AVAILABLE FOR	OPTIONS AVAILABLE FOR
- valves type 100 Series - pilot valves "CNOMO"	- valves type 200 Series
- Pilot operated valves with pilots type 100 Series Series : 55 - 56 - 700 - 800 - 900 - 6200 - 6300 - 6500 - 6600 - 1300 - ISO 1 - ISO 2 - ISO 3.	- pilot operated valves with pilots type 200 Series Series : 200 - 57 - 58 - 59.
- Pilot operated valves with pilots "CNOMO" Series : ISO1 - ISO2 - ISO3	

1. VOLTAGE (type 100 Series)

- XX Y ZZ	VOLTAGE
11	120 V~/60 Hz - 110 V~/50 Hz
12	240 V~/60 Hz - 220 V~/50 Hz
13	100 V~/60 Hz - 100 V~/50 Hz
15	200 V~/60 Hz - 200 V~/50 Hz
16	10 V~/60 Hz
20	6 V~/60 Hz
21	12 V~/50 Hz - 12 V~/60 Hz
22	24 V~/60 Hz - 24 V~/50 Hz
23	32 V~/60 Hz - 32 V~/50 Hz
24	48 V~/60 Hz - 42 V~/50 Hz
26	380 V~/50 Hz, 440 V~/50 Hz -440 V~/60 Hz, 480 V~/60 Hz-CLSF
29	200 V~/60 Hz
34	127 V~/50 Hz - 120 V~/50 Hz
35	48 V~/50 Hz
36	16 V~/60 Hz
81	24 V~/50 Hz
50	24 V=/6 W
51	24 V=/4 W
54	12 V=/4 W
55	12 V=/6 W
57	12 V=/2,5 W
59	24 V=/2,5 W
60	12 V=/8,5 W
61	24 V=/8,5 W
64	6 V=/6 W
65	32 V=/7 W
66	48 V=/5,8 W
67	64 V=/7,5 W
68	120 V=/6,4 W
69	220 V=/8,7 W - 250 V=/11,2 W CLSF
75	90 V=/8,8 W CLSF
76	100 V=/6,9 W CLSF
84	125 V=/10,9 W CLSF
87	24 V=/17,1 W CLSF
88	12 V=/17,4 W CLSF
89	36 V=/18,8 W CLSF
90	28 V=/8,2 W
91	6 V=/10,6 W CLSF
92	190 V=/6,5 W
94	3 V=/7 W
95	38 V=/6,4 W
A1	24 V=/1 W
A2	12 V=/1 W
A3	9 V=/1 W

MOD. DD01 : Protection diode (DC)

MOD. MOV1 : Protection varistor (AC)

MOD. DD01 : max. 8,5 W

MOD. MOV1 : max. 8,5 W

1. VOLTAGE (type 200 Series)

- XX Y ZZ	VOLTAGE
11	120 V~/60 Hz - 110 V~/50 Hz - 24 V=
12	240 V~/60 Hz - 220 V~/50 Hz
13	100 V~/60 Hz - 100 V~/50 Hz
14	200 V~/60 Hz - 200 V~/50 Hz
20	6 V~/60 Hz
21	12 V~/60 Hz
22	24 V~/60 Hz - 24 V~/50 Hz
23	32 V~/60 Hz - 32 V~/50 Hz
24	48 V~/60 Hz - 42 V~/50 Hz
25	240 V~/50 Hz
26	480 V~/60 Hz - 440 V~/50 Hz
27	127 V~/60 Hz
28	415 V~/50 Hz
29	200 V~/60 Hz
30	380 V~/50 Hz
31	550 V~/60 Hz - 550 V~/50 Hz
32	120 V~/60 Hz - 110 V~/50 Hz
33	600 V~/60 Hz
34	127 V~/50 Hz
35	48 V~/50 Hz
50	24 V=/6 W
51	24 V=/4,5 W
52	24 V=/2,5 W
53	24 V=/1 W
55	12 V=/6 W
57	12 V=/2,5 W
58	48 V=/2,5 W
60	12 V=/9,5 W
61	24 V=/8,5 W
64	6 V=/8,5 W
65	32 V=/10 W
66	48 V=/11,5 W
67	64 V=/10,5 W
68	120 V=/12,3 W
69	250 V=/9,2 W
71	8 V=/8,2 W
72	24 V=/12 W
73	198 V=/10 W
74	72 V=/11,3 W
75	90 V=/11,3 W
76	100 V=/9 W
77	220 V=/10 W - 230 V=/1,6 W
78	24 V=/24 W CLSF
80	55 V=/10,6 W CLSF
82	179 V=/11,1 W
83	15 V=/8,1 W
84	125 V=/10 W
86	36 V=/11 W
93	12 V=/24 W CLSF

2. MANUAL OPERATOR (Common options for 100 & 200 Series)

- XX Y ZZ	MANUAL OPERATOR
0	No operator
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

3. ELECTRICAL CONNECTION (type 100 Series)

- XX Y ZZ	ELECTRICAL CONNECTION
AA	Wiring box with 1/2" NPS conduit
BA	Flying leads
CA	1/2" NPS conduit
CC	1/2" NPS conduit
FA	Military type 2 PIN
GA	Military type 3 PIN
HA	AA with ground wire
JA*	Square connector
JB	Rectangular connector
JC*	Square connector with light
JD	Rectangular connector with light
JE	Square connector on top (ISO2, ISO3)
JF	Rectangular connector on top (ISO1, ISO2, ISO3)
JG	JE with light
JH	JF with light
JJ	Square connector, male only
JM	Rectangular connector, male only
MA	Electrical common conduit
MB	Electrical common conduit
NA	CA with ground wire
NC	CC with ground wire
RA	3/8" NPS conduit
AD	Wiring box 20 mm
AH	Wiring box PG 13,5 with ground wire
CD	20 mm conduit
CG	PG 11 conduit
HH	Wiring box PG 13,5 with ground wire
ND	20 mm conduit with ground wire
NG	PG11 conduit with ground wire
HD	20 mm wiring box with ground wire

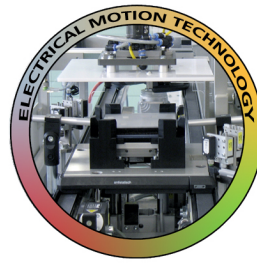
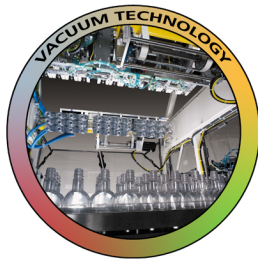
* Not to be used with 100, 800 and 900 Series manifold mounting

3. ELECTRICAL CONNECTION (type 200 Series)

- XX Y ZZ	ELECTRICAL CONNECTION
AA	Wiring box with 1/2" NPS conduit
BA	Flying leads
CA	1/2" NPS conduit
CC	1/2" NPS conduit
EA	Explosion proof (200 Series)
EA	Explosion proof (57, 58 & 59 Series)
EE	Explosion proof (CENELEC)
EN	Explosion proof with ground wire
FA	Military type 2 PIN
GA	Military type 3 PIN
HA	AA with ground wire
JA*	Square connector
JC	Square connector with light
JJ	Square connector, male only
NA	CA with ground wire
NC	CC with ground wire
AD	Wiring box 20 mm
AK	PG 16 wiring box
CD	20 mm conduit
CK	PG 16 conduit
HD	20 mm wiring box with ground wire
HK	PG16 wiring box with ground wire
ND	20 mm conduit with ground wire
NK	PG16 wiring box with ground wire

4. WIRE LENGTH (Common options for 100 & 200 Series)

- XX Y ZZ (-VV)	WIRE LENGTH
AA	45 cm - 18"
AB	60 cm - 24"
AD	90 cm - 36"
AE	120 cm - 48"
AF	180 cm - 72"
AG	15 cm - 6"
AR	30 cm - 12"
AU	305 cm - 120"
BA	152 cm - 60"
BB	366 cm - 144"
Series 6000 : wire length, delivered with the base	
MOD L024	60 cm - 24"
MOD L036	91 cm - 36"
MOD L048	122 cm - 48"
MOD L060	152 cm - 60"
MOD L072	180 cm - 72"
MOD L120	305 cm - 120"



We look forward to your application.

LDA Belgium

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