

# Electro-Pneumatic Miniature Control Valves

**EC** Crouzet

Products and specifications subject to change without notice.

# Electro-pneumatic miniature control valves

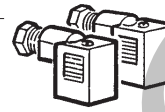
ORDER  
ONLINE

## Mounting

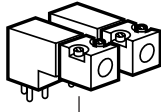
cabinet

machine

### Connectors

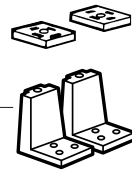


### Mini-solenoid valves



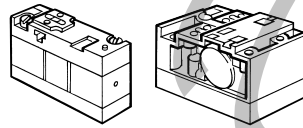
### Indicators

- LED seals
- LED



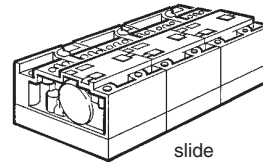
### Valve modules

- Poppet
  - 3/2 single pilot
  - 4/2 single pilot
- Slide valve
  - 4/2 double pilot
  - 4/2 single pilot



poppet valve

slide valve



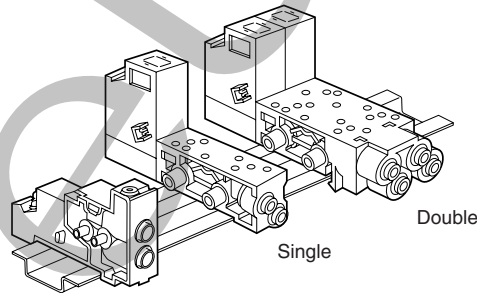
slide valves

### Sub-bases

For miniature

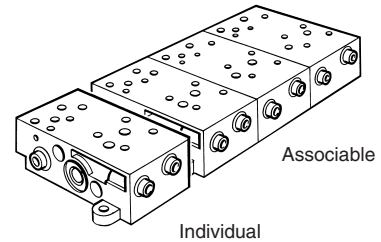
For valve modules

For valve modules



Single

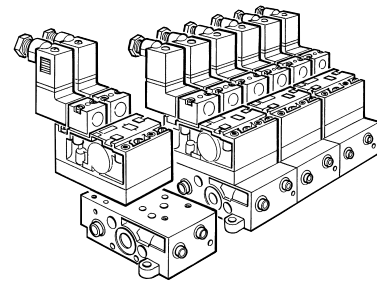
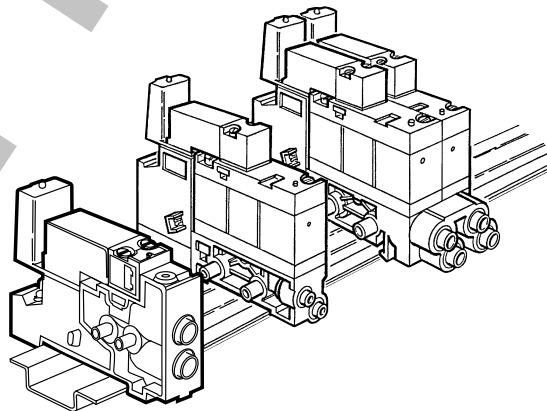
Double



Associable

Individual

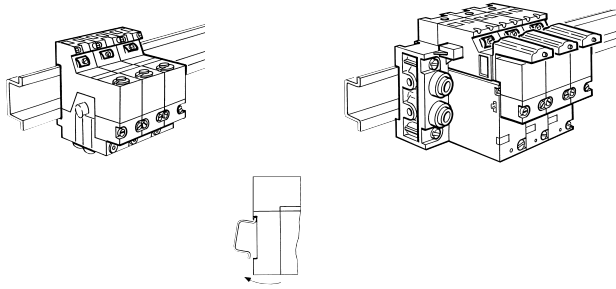
### Complete product



Products and specifications subject to change without notice.

**Cabinet mounting (DIN rail)**

Simple clip-on installation (no tools required)

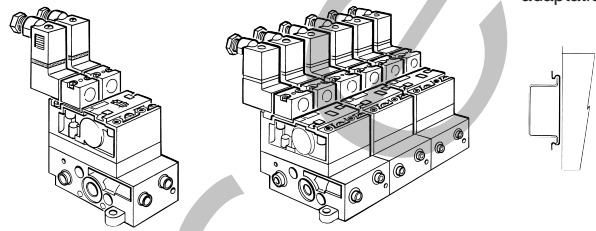


**Machine mounting**

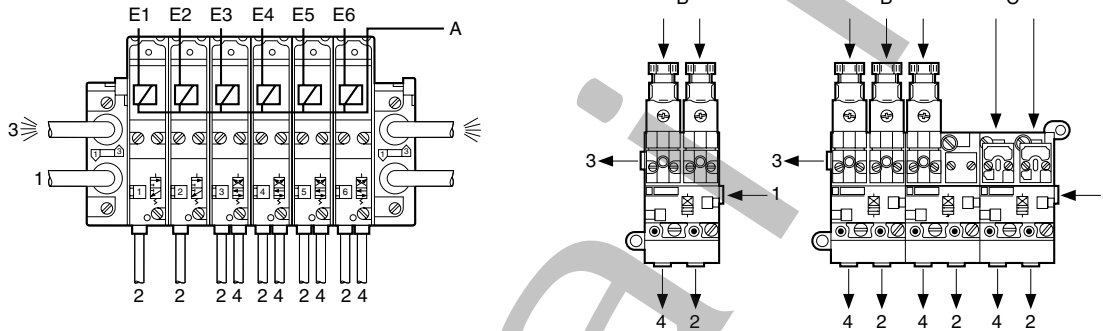
Individual

In a bank

DIN rail adaptation



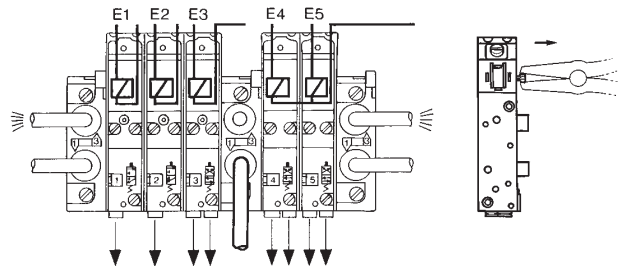
**Connection**



- A - Common electrical supply
- B - Electrical pilot
- C - Pneumatic pilot
- 1 - Common supply
- 2 } Pneumatic output
- 4 } Pneumatic output
- 3 - Common exhaust

**Other options**

- Pneumatic
  - Supply at different pressures
- Electrical
  - Supply at different voltages
  - Independent supply to each module is possible if the integral electrical common pin on the sub-base is removed.

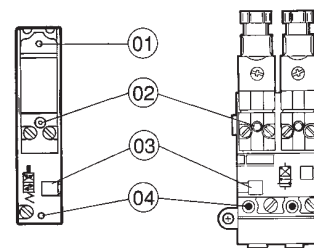


**Maintenance**

- 01 - LED indicator
- 02 - Manual override to produce input
  - Function symbols
  - Terminal marking
  - Port marking
- 03 - Marking tag
- 04 - Pneumatic output indicator

Cabinet mounting

Machine mounting

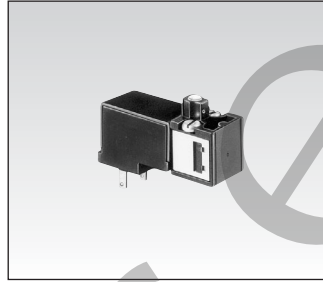


Products and specifications subject to change without notice.

# Miniature solenoid valves for direct current

ORDER  
ONLINE

- Conform to the Low Voltage Directive
- For mounting on sub-base or footprint in accordance with CNOMO recommendation E 06-36-120N



1

## Part numbers (and voltages)

	Consumption	Voltage
	1 W	24 V $\equiv$
Function		
Version		

**81 519 032**  
3/2 NC  
Without manual override

**81 519 332**  
3/2 NC  
With manual override by impulse

**81 519 632**  
3/2 NC  
With maintained manual override

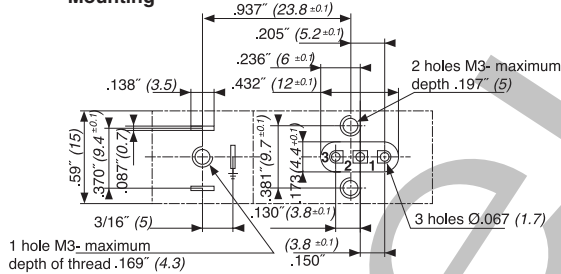
## Characteristics

Operating pressure	psi	(Bars)	15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)
Orifice diameter	inches	(mm)	.03 (0.8)	.03 (0.8)	.03 (0.8)	.03 (0.8)
Flow at 90 psi (6 bars)	cfm	(NI/min)	1 (30)	1 (30)	1 (30)	1 (30)
Cv (kV)			.02 (0.3)	.02 (0.3)	.02 (0.3)	.02 (0.3)
Switching time milliseconds		(ms)	5 > 15	5 > 15	5 > 15	5 > 15
Mechanical life (cycles)			15 million	15 million	15 million	15 million
Operating temperature	°F	(°C)	+15 > +120 (-10 > +50)	+15 > +120 (-10 > +50)	+15 > +120 (-10 > +50)	+15 > +120 (-10 > +50)
Compressed air or inert gas - oil-free air filtered to 50 $\mu$						
Duty factor			100 % ED	100 % ED	100 % ED	100 % ED
Insulation class		(IEC 85)	F	F	F	F
Weight	grams		35	35	35	35
Rotatable connector 4 positions in 90° steps						
Degree of protection with M12 5-pin connector		(IEC 529)	IP 20	IP 20	IP 20	IP 20
Degree of protection with connector 81 516 082		(IEC 529)	IP 65	IP 65	IP 65	IP 65
UL and cUL approval			MH 15085	MH 15085	MH 15085	MH 15085

## Mounting plan

according to CNOMO E 06.36.120.N

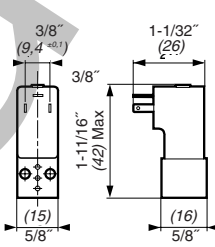
### Mounting



- 1 - Supply
- 2 - Output
- 3 - Exhaust

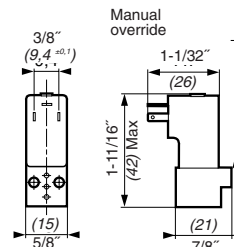
## Dimensions

81 519 0



## 81 519 3

81 519 6



use (metric) dimensions for critical data

## Other information

Other voltages on request.  
Other orifice diameters (1.2 mm, 1.5 mm) on request.

## To order, specify :

Standard products

**1** Part number

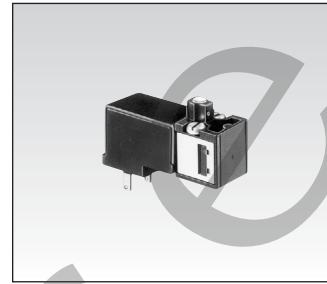
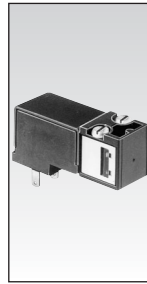
Example : Miniature solenoid valves - 81 519 032

Products and specifications subject to change without notice.

# Miniature solenoid valves for alternating current

ORDER ONLINE

- Conform to the Low Voltage Directive
- For mounting on sub-base or footprint in accordance with CNOMO recommendation E 06-36-120N



## Part numbers (and voltages)

Consumption	Voltage
2.5 VA	24 V ~ 50-60 Hz
2.5 VA	48 V ~ 50-60 Hz*
2.5 VA	110 V ~ 50-60 Hz
2.5 VA	220 V- 230 V ~ 50-60 Hz

81 519 080
—
—
—

81 519 380
81 519 381
81 519 378
81 519 379

81 519 680
81 519 678
81 519 679

Function	3/2 NC
Version	Without manual override

3/2 NC
With manual override by impulse

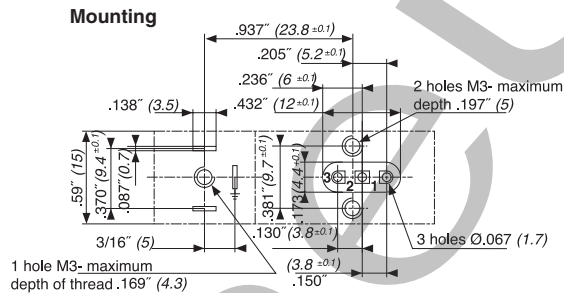
3/2 NC
With manual override by latching (1/4 turn)

## Characteristics

			15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)
Operating pressure	psi (Bars)		15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)	15 > 120 (1 > 8)
Orifice diameter	inches (mm)		.03 (0.8)	.03 (0.8)	.03 (0.8)	.03 (0.8)
Flow at 90 psi (6 bars)	cfm (Nl/min)		1 (30)	1 (30)	1 (30)	1 (30)
Cv (kV)			.02 (0.3)	.02 (0.3)	.02 (0.3)	.02 (0.3)
Switching time milliseconds	(ms)		5 > 15	5 > 15	5 > 15	5 > 15
Mechanical life (cycles)			15 million	15 million	15 million	15 million
Operating temperature	°F (°C)		+15 > +120 (+0 > +50)	+15 > +120 (+0 > +50)	+15 > +120 (+0 > +50)	+15 > +120 (+0 > +50)
Compressed air or inert gas - oil-free air filtered to 50 µ			•	•	•	•
Duty factor			100 % ED	100 % ED	100 % ED	100 % ED
Insulation class	(IEC 85)		F	F	F	F
Weight	grams		35	35	35	35
Rotatable connector 4 positions in 90° steps			•	•	•	•
Degree of protection with sub-base (page 5/52)	(IEC 529)		IP 20	IP 20	IP 20	IP 20
with connector 81 516 082 (page 5/55)	(IEC 529)		IP 65	IP 65	IP 65	IP 65
UL and cUL approval			MH 15085	MH 15085	MH 15085	MH 15085

## Mounting plan

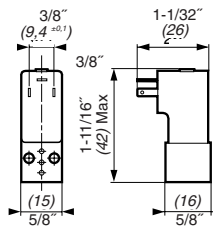
according to CNOMO E 06.36.120.N



- 1 - Supply
- 2 - Output
- 3 - Exhaust

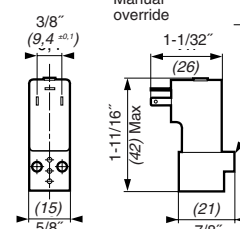
## Dimensions

81 519 0



## 81 519 3

81 519 6

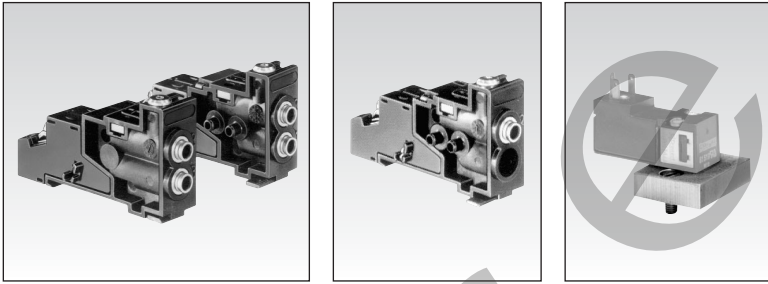


Other information	To order, specify :
Other voltages on request	<p>Standard products</p> <p><b>1</b> Part number</p> <p>Example : Miniature solenoid valves - 81 519 080</p>

Products and specifications subject to change without notice.

# Sub-bases for miniature pilot solenoid valves

ORDER  
ONLINE



## Part numbers

Pair of end bases	81 514 101	—	—
Intermediate sub-base	—	81 514 161	—
Adaptor sub-base for mounting plan CNOMO 06-05-80 / NFE 49066	—	—	79 453 569

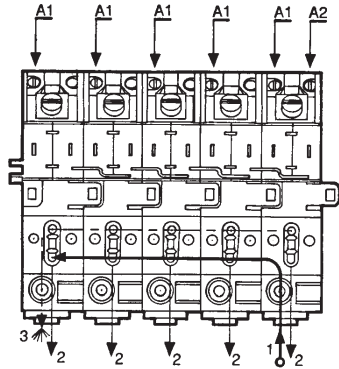
1

## Characteristics

Pneumatic indicator on output		•	•	
Common supply		•	•	
Common exhaust		•	•	
Wire size	AWG	(mm <sup>2</sup> )	14 (3)	14 (3)
Push-in connection for semi-rigid tubing 5/32" O.D. (Ø 4 mm) (NFE 49100)		•	•	
Mounting		DIN rail EN 50022 MH 15085	DIN rail EN 50022 MH 15085	2 screws M4 provided
UL and cUL approval				—
Weight	(grams)	65	65	50

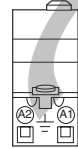
## Connection

Pneumatic



- 1 - Supply
- 2 - Output
- 3 - Exhaust

Electrical

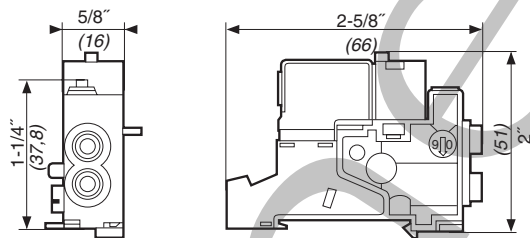


- A1 - Pilot signal
- A2 - Common
- ⊥ - Ground

Dimensions with miniature solenoid valve (page 5/4)

81 514 101 - 81 514 161

79 453 569

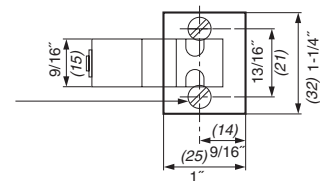
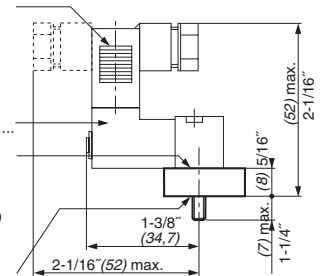


Connector ref 81 516 082  
(rotatable in 90° steps)  
see page 5/55

Miniature solenoid valve 81 519 ...  
see page 5/50

Mounting on mounting plan  
CNOMO 06-05-80  
NFE 49066

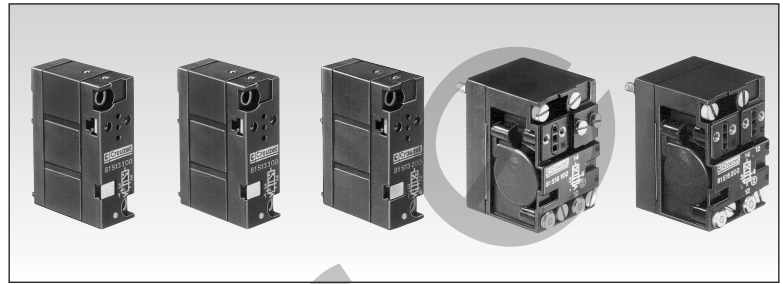
Fixing on CNOMO 06-05-80/  
NFE 49-066 mounting plan via  
2 cap screws M4  
(NFE 25-127)



use (metric) dimensions for critical data

Other information	To order, specify :
	<p>Standard products</p> <p><b>1</b> Part number Example : Sub-bases for miniature pilot solenoid valves - 81 514 101</p>

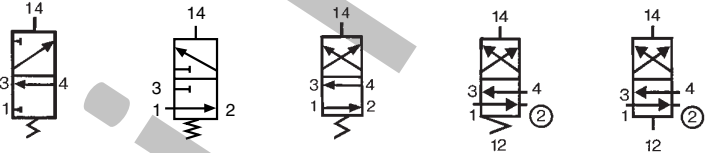
Products and specifications subject to change without notice.



### Part numbers

	81 513 100	81 513 600	81 513 200	81 516 100	81 516 200
Function	3/2 NC	3/2 NO	4/2	4/2 single pilot spring-return	4/2 double pilot

### Symbol

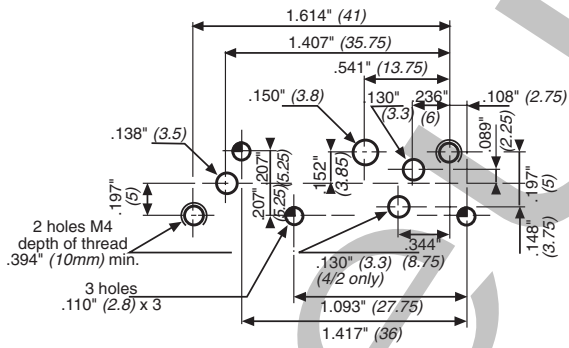


### Characteristics

Width	inches (mm)	11/16" (17.5)	11/16" (17.5)	11/16" (17.5)	1-3/8" (35)	1-3/8" (35)
Operating pressure	psi (bars)	45>120 (3>8)	45>120 (3>8)	45>120 (3>8)	50>120 (3.5>8)	50>120 (3.5>8)
Orifice diameter	inches (mm)	1/8" (3)	1/8" (3)	1/8" (3)	5/32" (4)	5/32" (4)
Flow at 90 psi (6 bars) with 5/32" sub-base (page 5/54)	cfm	7 (200)	7 (200)	7 (200)	10.5 (300)	10.5 (300)
Operating temperature	°F (°C)	+15>120 (-10>+50)	+15>120 (-10>+50)	+15>120 (-10>+50)	+15>120 (-10>+50)	+15>120 (-10>+50)
Cv (kV) with 5/32" sub-base (page 5/54)		.15 (2.2)	.15 (2.2)	.15 (2.2)	.28 (4)	.28 (4)
Switching time of the relay only (Milliseconds)		5	5	5	10	10
Mechanical life (cycles)		15million	15million	15million	10million	10million
Weight (grams)		38	38	38	106	106

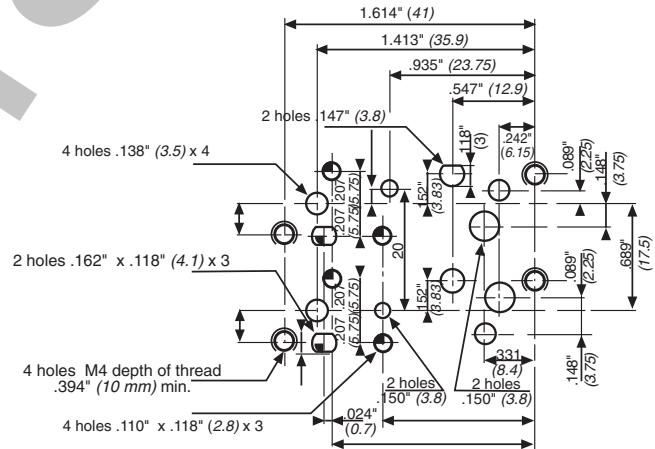
### Mounting plan for poppet minivalve

81 513 100 - 81 513 200 - 81 513 600

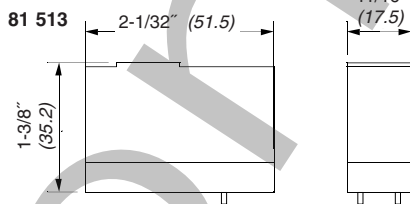


### Mounting plan for slide mini valve

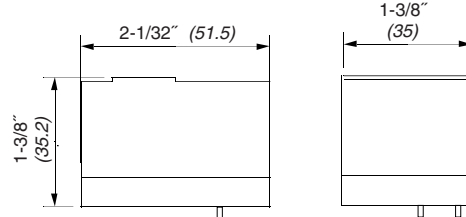
81 516 100 - 81 516 200



### Dimensions



### 81 516



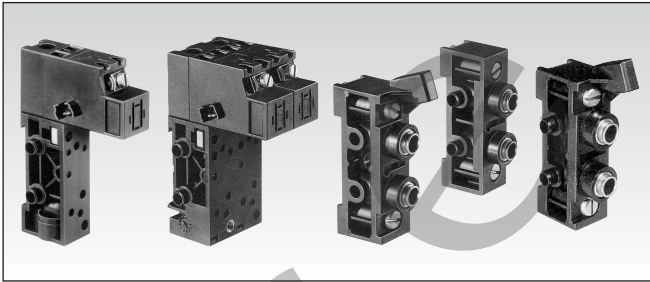
use (metric) dimensions for critical data

Other information	To order, specify :
On request : Miniature power valve supplied mounted on a sub-base and equipped with its own control solenoid valve	<input type="checkbox"/> Standard products <input type="checkbox"/> Standard products, non stocked <input checked="" type="checkbox"/> Part number Example : Miniature control valve - 81 513 100

Products and specifications subject to change without notice.

# Sub-bases and end bases for miniature control valves

ORDER  
ONLINE



1

## Part numbers

Mounting			Cabinet	Cabinet	Cabinet	Cabinet
Version			17.5 mm	35 mm	—	—
Push-in connection for semi-rigid tubing (NFE 49100)	Sub-bases	Ø 4 mm	<b>81 513 060</b>	<b>81 517 101</b>	—	—
		Ø 6 mm	<b>81 513 065</b>	<b>81 517 201</b>	—	—
	End bases (pair)	Ø 6 mm	—	—	<b>81 513 011</b>	—
	Intermediate supply module	Ø 6 mm	—	—	—	<b>81 513 001</b>

## Characteristics

Torque capacity	mm <sup>2</sup>	3	3	—	—
UL and cUL approval		MM15085	MM15085	—	—
Mounting		DIN rail 35 mm	DIN rail 35 mm	DIN rail 35 mm	DIN rail 35 mm
Weight	g	EN 50022	EN 50022	EN 50022	EN 50022
		55	110	86	44

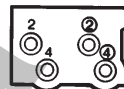
## Connections

### Pneumatic

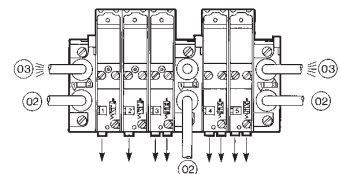
81 513 011 - 81 513 001



2 - Pneumatic output 4/2 (NO)  
4 - Pneumatic output 3/2 or 4/2 (NC)



2 Output at rest (NO)  
2 Output at rest \*  
4 Output at rest \*  
4 Output operating (NC)



02 2 Supply ports

03 2 Exhaust ports

Integral push-in connections Ø 6 mm

Note :

Each sub-base can accept  
- sub-base 81 513 060-065 : 1 relay 3/2 or 4/2, width 17.5 mm  
- sub-base 81 517 101-201 : 1 bistable relay 4/2 (width 35 mm) or 2 relays 3/2 or 4/2 (width 17.5 mm)

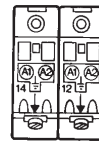
### Electrical



A1 - Pilot signal  
A2 - Common



Earth



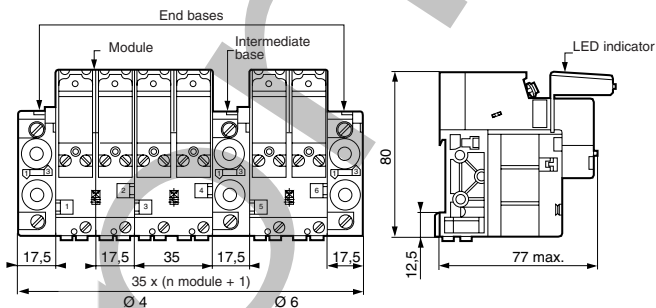
A1 - Operating control signal (14)  
A2 - Common  
A1 - Rest control signal (12)  
A2 - Common



Earth

Degree of protection :  
IP20 when assembled.

Dimensions with miniature control valves (page 5/53) + miniature solenoid valves (page 5/50) + indicators (page 5/55)



## Other information

## To order, specify :

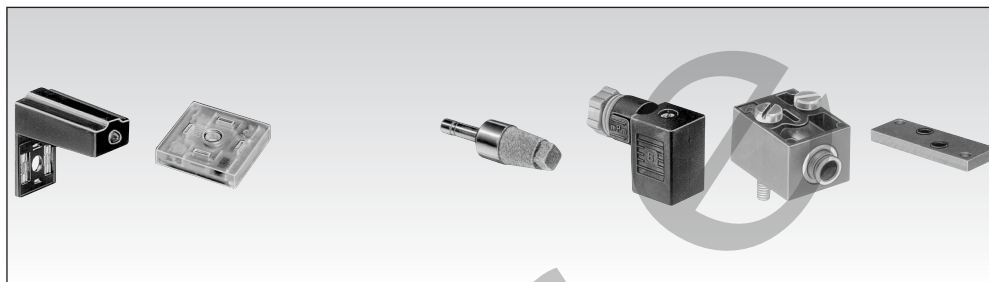
Standard products

**1** Part number

Example : Miniature control valve - 81 513 060

Products and specifications subject to change without notice.

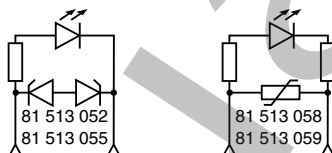




## Part numbers

Visual indicators*	24 V - 50-60 Hz $\equiv$	81 513 052	—	—	—	—	—	—
	48 V - 50-60 Hz $\equiv$	81 513 055	—	—	—	—	—	—
	110 V - 50-60 Hz $\equiv$	81 513 058	—	—	—	—	—	—
	230 V - 50-60 Hz (-10% +6 %)	81 513 059	—	—	—	—	—	—
Version	With anti-surge and indication	—	—	—	—	—	—	—
LED seal	12 to 24 V - DC - AC	—	81 513 064	—	—	—	—	—
Exhaust silencer	Plug-in $\varnothing$ 6	—	—	81 537 001	—	—	—	—
	Plug-in $\varnothing$ 8	—	—	81 537 201	—	—	—	—
Connector for solenoid valve		—	—	—	81 516 082	—	—	—
Pneumatic pilots	Without manual override	—	—	—	—	81 516 081	—	—
	With manual override by impulse	—	—	—	—	—	—	—
Push-in connection for semi-rigid tubing $\varnothing$ 4 mm (NFE 49100)		—	—	—	—	—	—	—
Blanking plate		—	—	—	—	—	—	81 516 085

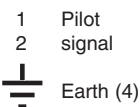
## Symbol



## Characteristics

Consumption	W	—	0.24	—	—	—	—	
Temperature	$^{\circ}$ C	—	- 10 to + 50	—	—	—	—	
Connection	mm	—	—	—	—	Instantané $\varnothing$ 4 ext.	—	
Mounted between the pilot solenoid valve and the body of the module		•	•	—	—	—	—	
Supplied in multiples of 5		•	—	—	—	—	—	
Supplied in multiples of 10		—	•	—	•	•	•	
Packet of 10 pieces		—	—	—	—	—	•	
Weight		9	6	2	30	10	5	3

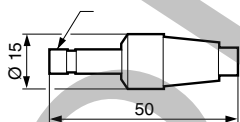
## Connection



## Dimensions

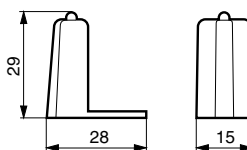
81 537 001 - 81 537 201

Mounted by plugging into push-in connector for semi-rigid tubing (NFE 49100)

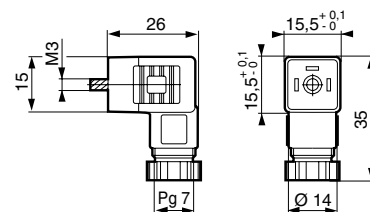


81 513 052 - 81 513 055

81 513 058 - 81 513 059



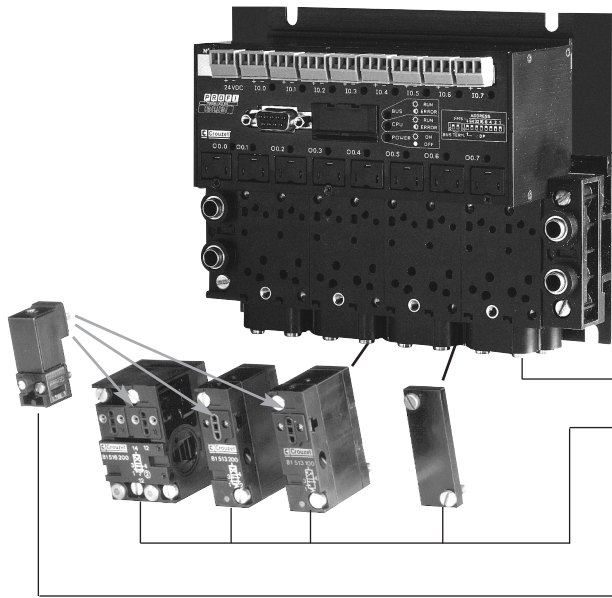
81 516 082



Other information	To order, specify :
* Other voltages available on request	<div style="display: flex; align-items: center;"> <div style="background-color: #ccc; width: 20px; height: 10px; margin-right: 5px;"></div> <span>Standard products</span> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="background-color: #000; color: #fff; padding: 2px 5px; font-weight: bold; margin-right: 5px;">1</div> <span>Part number</span> </div> <p>Example : LED seal - 81 513 064</p>

Products and specifications subject to change without notice.

To order, specify :



**Reference for the station configuration**  
 81 555 2 station with 8 inputs / 8 outputs  
 81 555 3 station with 16 inputs / 16 outputs

**Communications protocol**  
 Profibus  
 C-Bus  
 Device Net

**Dimension of connectors for output ports**  
 push-in connectors for Ø 4 mm  
 push-in connectors for Ø 6 mm

**Reference for valve modules and corresponding quantity**  
 81 513 100 valve module 3/2 NC (1 mounting position)  
 81 513 200 valve module 4/2 monostable (1 mounting position)  
 81 516 100 valve module 4/2 monostable (2 mounting positions)  
 81 516 200 valve module 4/2 bistable (2 mounting positions)  
 81 516 085 blanking plate (1 mounting position)

**Reference for pilot solenoid valves and corresponding quantity**  
 81 519 032 without manual override  
 81 519 332 with pulsed manual override  
 81 519 632 with maintained manual override

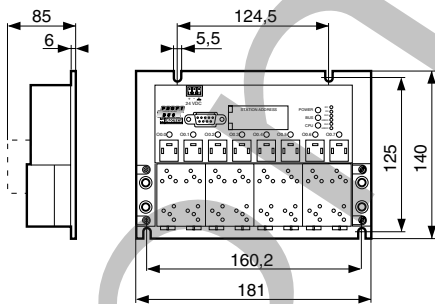
**Example of an order :**

1 station with 8 inputs / 8 outputs 81 555 2, Profibus DP protocol, push-in connectors Ø 6 mm, 7 valve modules 81 513 100, 1 blanking plate 81 516 085, 7 pilot solenoid valves without manual override 81 519 032.

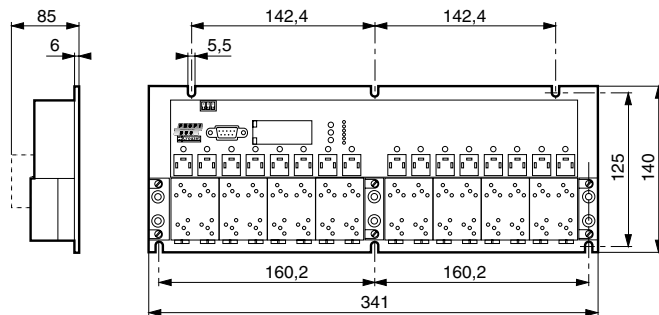
**Note :** Disks containing the configuration files and programming manuals should both be ordered separately.

**Dimensions**

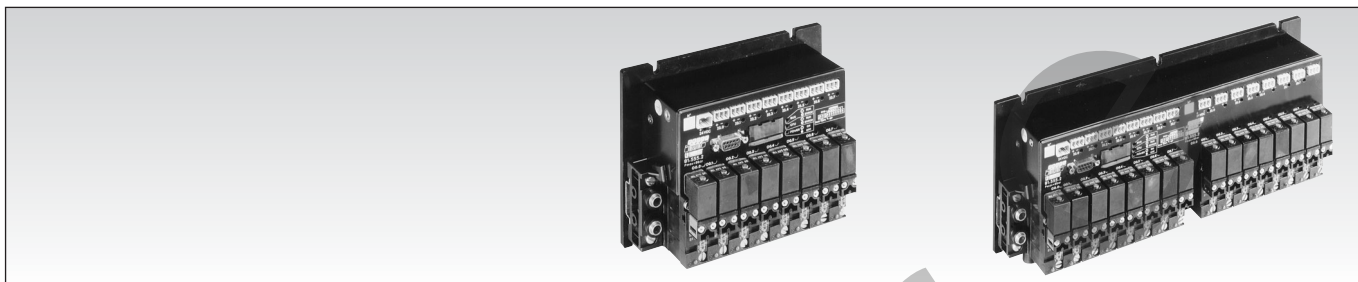
81 555 2--



81 555 3--



Products and specifications subject to change without notice.



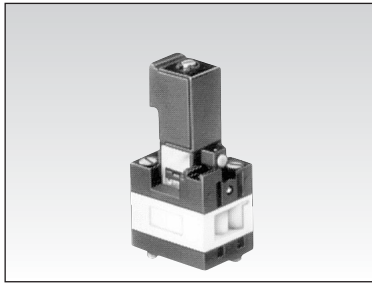
## Part numbers

		81 555 2--	81 555 3--
Number of inputs (electrical)		8	16
Number of outputs (pneumatic)		8	16
<b>Electrical characteristics</b>			
Power supply	VDC	24 -10 % +15%	24 -10 % +15%
Ripple max.	Un	5 %	5 %
Consumption per pilot solenoid valve	mA	40	40
Max. sensor consumption	mA	500	500
Dielectric strength acc. to IEC1131-2	KV DC	0,8	0,8
Electromagnetic compatibility IEC 801-2-3-4 and IEC 255-4		Level 3	Level 3
Power supply connection		Phoenix 3-pin plug connector 3.81 mm pitch	Phoenix 3-pin plug connector 3.81 mm pitch
Input connections (electrical)		Phoenix 3-pin plug connector 3.81 mm pitch	Phoenix 3-pin plug connector 3.81 mm pitch
Type of inputs		2 or 3-wire sensors for Un = 24 VDC	2 or 3-wire sensors for Un = 24 VDC
Operating voltage for each input	VDC	Level 1 : 11 to 30 Level 0 : 0 to 5	Level 1 : 11 to 30 Level 0 : 0 to 5
Current consumption for each input	mA	In : 12 ± 5	In : 12 ± 5
Insulation resistance for each input	DC	800	800
<b>Pneumatic characteristics</b>			
Number of valve positions at 17.5 mm intervals		8	16
Connection of common supply of pressurised medium		2 push-in connectors for 6 mm o.d. tubing	3 push-in connectors for 6 mm o.d. tubing
Connection of common exhaust		2 push-in connectors for 6 mm o.d. tubing	3 push-in connectors for 6 mm o.d. tubing
Output connections		2 push-in connectors for 4 or 6 o.d. tubing per mounting position	2 push-in connectors for 4 or 6 o.d. tubing per mounting position
Working pressure	bars	3.5 to 8 bars for 81 516 power valves 3 to 8 bars for 81 513 power valves	3.5 to 8 bars for 81 516 power valves 3 to 8 bars for 81 513 power valves
Working medium		Compressed air or inert gas oil-free air filtered to 50 µ	Compressed air or inert gas oil-free air filtered to 50 µ
<b>General characteristics</b>			
Class of protection IEC 529		IP 20	IP 20
Operating temperature IEC 68-2-14	°C	-5 to +50	-5 to +50
Storage temperature IEC 68-2-1-2	°C	-15 to +50	-15 to +50
Vibration resistance IEC 68-2-6	HZ	10 to 57 / 0.5 g / amplitude 0.0375 mm	10 to 57 / 0.5 g / amplitude 0.0375 mm
Weight (not fitted with valve modules)	g	750	1 406

PROTOCOL	PROFIBUS	CBUS	DEVICE NET
Disk containing configuration files	79 453 656	—	79 453 660
Programming manual	French	79 453 630	79 453 633
	English	79 453 631	79 453 634
	German	79 453 632	79 453 635
Other versions	Profibus DP Profibus FMS (DIN 19245) Sinec L2 TF (Siemens)	Modbus	
Type of link	RS 485	RS 485	as standard Device Net
Connection	SUB D 9 connector	SUB D 9 connector	Phoenix plug connector 5.08 mm pitch / 5-pin
Speed selection	Automatic recognition	with 2 switches	with 2 switches
Speeds (K bits / sec)	9,6   19,2   93,75   187,5   500	2,4   4,8   9,6   19,2	125   250   500
Transmission distance (m)	1200   1200   1200   1000   200	1200   1200   1200   1200	500   200   100
Setting station addresses	with 7 switches	with 5 switches	with 6 switches
Max. number of stations	127	31	54

Other informations	To order, specify :
Other communication protocol : please consult us.	<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 15px; background-color: black; margin-right: 5px;"></div> <b>Standard products</b> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 20px; height: 15px; background-color: black; margin-right: 5px; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 12px; font-weight: bold;">1</span> </div> <span>Part number</span> </div>
Other configurations : please consult us.	

Products and specifications subject to change without notice.



## Part numbers and voltages

**1**

Function		3/2 NC	3/2 NO
Mounting		On sub-base (p.5/44)	On sub-base (p.5/44)
Solenoid valves	24 Vdc (+10% -15%)	<b>81 519 732</b>	<b>81 519 832</b>
with impulse	24 Vac - 50/60 Hz (+10% -15%)	<b>81 519 774</b>	—
manual	48Vac - 50/60 Hz (+10% -15%)	<b>81 519 775</b>	—
override	110 Vac - 50/60 Hz (+10% -15%)	<b>81 519 776</b>	—
	220 Vac - 50/60 Hz (+10% -15%)	<b>81 519 777</b>	—

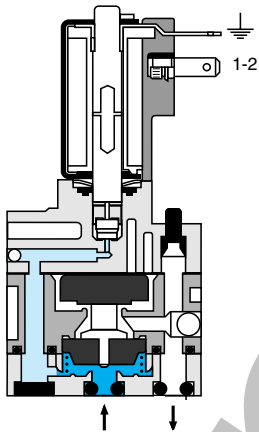
## Symbol



## Characteristics

Operating pressure	psi (bar)	30>120 (2 > 8)	30>120 (2 > 8)
Orifice diameter	inches (mm)	0.106 (2.7)	0.106 (2.7)
Flow at 90 psi (6 bars)	cfm (Nl/min)	6 (170)	6 (170)
Rotatable coil 4 positions in 90° steps		•	•
Degree of protection (with connector 81 516 082 not supplied) (see page 5/11)	IEC 529	IP 65	IP 65
Mechanical life	cycles	15 million	15 million
Consumption	W	1	1
	VA	2.5	2.5
Operating temperature	°F (°C)	(-5 > +50)	(-5 > +50)
Weight	(grams)	70	70
UL and cUL approval		MH15085	MH15085

## Principle of operation



## Connections

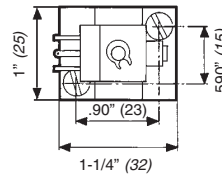
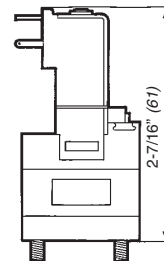
- Pneumatic { 1 - Supply  
2 - Output
- Electrical { 1 - 2 - Pilot signal  
Ground

Electrical connection by connector 81 516 062 (see page 5/55)

## Dimensions

81 519

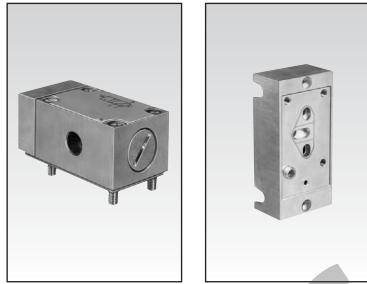
On separate sub-base



use (metric) dimensions for critical data

Other information	To order, specify :
	<p><b>Standard products</b></p> <p><b>1</b> Part number Example : Solenoid valve 81 519 777</p>
	<p><b>Standard products, non stocked</b></p> <p><b>1</b> Part number Example : Solenoid valve 81 519 775</p>

Products and specifications subject to change without notice.



**Part numbers**

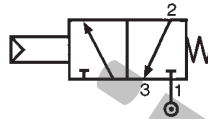
3/2 control valve with pneumatic pilot  
 Sub-base - push-in connection for semi-rigid tubing 5/16" O.D.  
 (Ø 8 mm) (NFE 49100)

81 213 101

81 544 101

1

**Symbol**



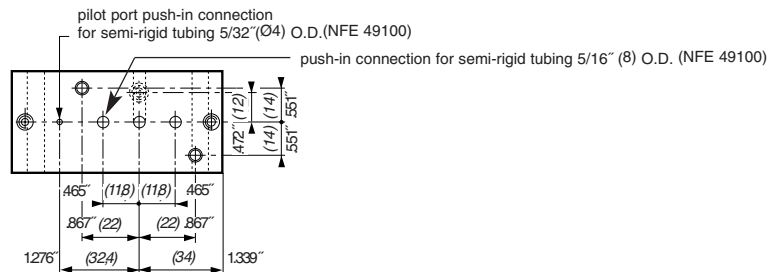
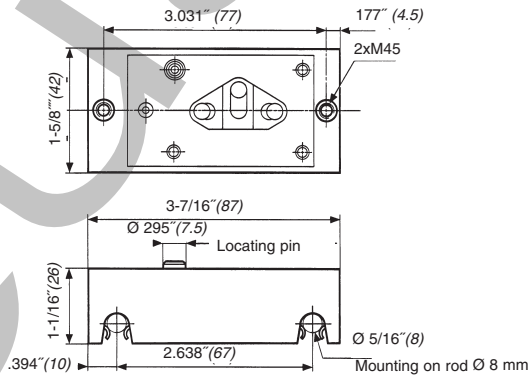
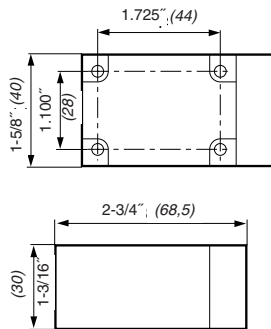
**Characteristics**

Pilot pressure	psi (bar)	30>120 (2 > 8)	—
Operating pressure	psi (bar)	30>150 (2 > 12)	—
Orifice diameter	inches (mm)	1/4" (6)	—
Flow at 90 psi (6 bars) upstream	cfm (NL/min)	26 (750)	—
Life at 60 psi (4 bars)	cycles	10 million	—
Weight	grams	350	220

**Dimensions**

81 213 101

81 544 101



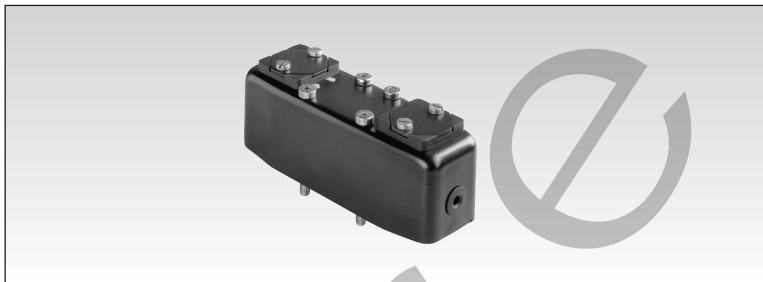
use (metric) dimensions for critical data

Other information	To order, specify :
	<p>Standard products</p> <p><b>1</b> Part number                      Example : 3/2 control valve and accessories - 81 213 101</p>

Products and specifications subject to change without notice.

# Control valves, ISO 5599-size 1 footprint

ORDER ONLINE

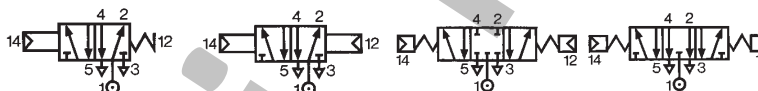


## Part numbers

	89 541 007	89 541 037	89 541 047	89 541 067
Pneumatic pilot	Air pilot spring return	Double air pilot	Double air pilot closed center	Double air pilot open center
Function	5/2	5/2	5/3	5/3

1

## Symbol

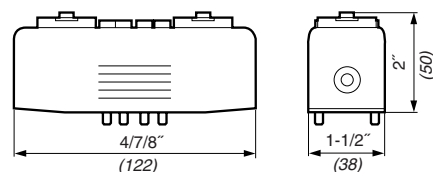


## Characteristics

Operating pressure with internal pilot supply	psi (bar)	45>150(+3>+10)	45>150(+3>+10)	45>150(+3>+10)	45>150(+3>+10)
Operating pressure with external pilot supply	psi (bar)	vacuum to 180(-0.950>12)	vacuum to 180(-0.950>12)	vacuum to 180(-0.950>12)	vacuum to 180(-0.950>12)
Pilot pressure	psi (bar)	45>150(3>10)	45>150(3>10)	45>150(3>10)	45>150(3>10)
Operating temperature	°F (°C)	+15>+150(-10>+70)	+15>+150(-10>+70)	+15>+150(-10>+70)	+15>+150(-10>+70)
Flow at 90 psi(6 bars) (ANR)	cfm (NL/min)	50(1400)	50(1400)	50(1400)	50(1400)
Life (cycles)		30 million	30 million	30 million	30 million
Mounting plan : ISO standard 5599-01					
Weight	(grams)	415	415	415	415

## Dimensions

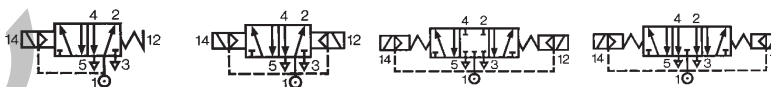
89 541-



## Products available to order (please consult us)

Electro-pneumatic control	Air pilot spring return	Double air pilot 5/2	Double air pilot closed center 5/3	Double air pilot open center 5/3
Function				

## Symbol



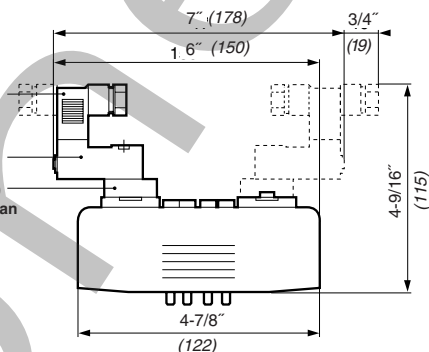
## Dimensions

On request

Connector Ref : 81 516 082  
see page 5/55

Miniature solenoid valve  
Ref : 81 519 ...  
see page 5/50

Adaptor sub-base Ref 79 453 569  
for CNOMO 06.05.80 mounting plan



use (metric) dimensions for critical data

## Other information

For characteristics of pilot solenoid valve, see page 5/50

## To order, specify :

Standard products

**1** Part number

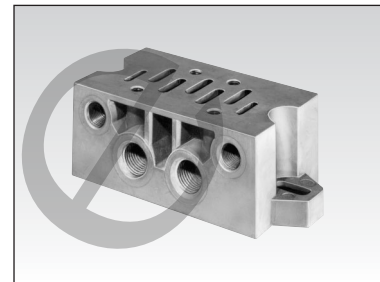
Example : Pneumatic control valve - 81 541 007

Made to order products,  
please consult us

Products and specifications subject to change without notice.

# Sub-bases for ISO size 1 control valves 5/2 and 5/3

ORDER  
ONLINE



## Part numbers

Single sub-base (with clips)  
Single sub-base with side connections

81 543 006

81 543 206

1

## Characteristics

Connection push-in for semi-rigid tubing (NFE49100)  
tapped hole

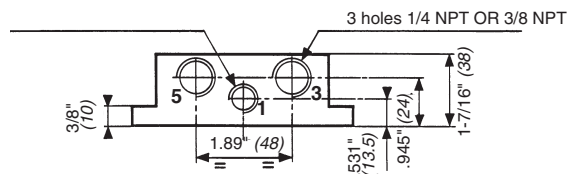
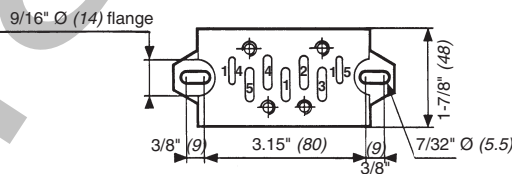
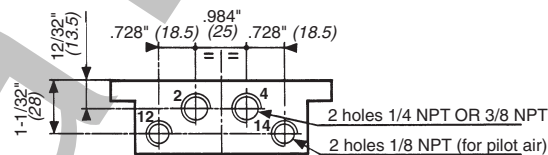
Weight (grams)

Ø 6 mm  
950

Ø 8 mm  
950

## Dimensions

89 543 102



- Port
- 1= supply
  - 2= output port at rest
  - 3= exhaust port 2
  - 4= output port on actuation
  - 5= exhaust port of 4
  - 12= rest pilot
  - 14= actuation pilot

use (metric) dimensions for critical data

Other information	To order, specify :
	<p>Standard products <b>1</b> Part number Example : Sub-bases for ISO control valves - 81 543 002</p>
	<p>Standard products non-stocked</p>

Products and specifications subject to change without notice.