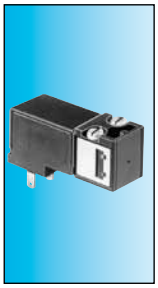
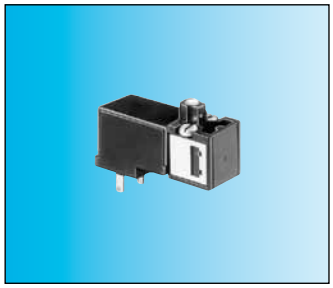
Electro-pneumatic control valves

Miniature solenoid valves for alternating current

- **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	81 519 080	81 519 380	81 519 680
2.5 VA	48 V ∿ 50-60 Hz*	—	81 519 381	
2.5 VA	110 V ∿ 50-60 Hz	—	81 519 378	81 519 678
2.5 VA	220 V- 230 V ∿ 50-60 Hz	—	81 519 379	81 519 679

Function	3/2 NC	3/2 NC	3/2 NC
Version	Without manual override	With manual override by impulse	With manual override by latching (1/4 turn)

Characteristics

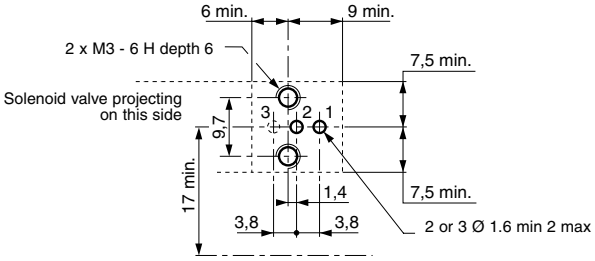
Operating pressure	bar	1→ 8	1→ 8	1 → 8
Orifice diameter	mm	0.5	0.5	0.5
Flow at 6 bars	Nl/min	12	12	12
kV		0.12	0.12	0.12
Switching time	ms	5 → 15	5 → 15	5 → 15
Mechanical life (operations)		5 10^7	5 10^7	5 10^7
Operating temperature	°C	-10 → +50	-10 → +50	-10 → +50
Compressed air or inert gas - oil-free air filtered to 50 µ		●	●	●
Duty factor		100 % ED	100 % ED	100 % ED
Insulation class	IEC 85	F	F	F
Weight		35	35	35
Rotatable connector 4 positions in 90° steps		●	●	●
Degree of protection with sub-base (page 62)	IEC 529	IP 20	IP 20	IP 20
Degree of protection with connector 81 516 082 (page 65)	IEC 529	IP 65	IP 65	IP 65
UL and cUL approval		MH 15085	MH 15085	MH 15085

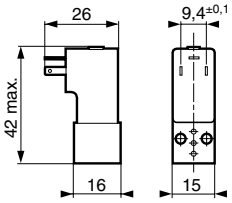
15x15 mm footprint

according to CNOMO E 06-36-120N

Dimensions
81 519 0

81 519 3
81 519 6





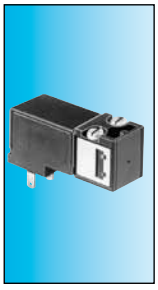
Manual override

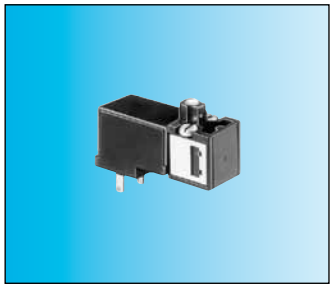
1 - Supply
2 - Output
3 - Exhaust

Miniature solenoid valves for direct current

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

Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive





Part numbers (and voltages)

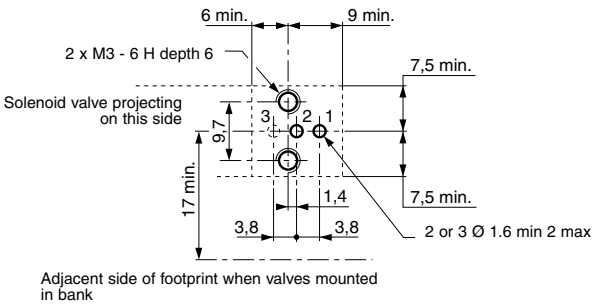
	Consumption	Voltage				
	1 W	24 V ⎓	**81 519 032**	**81 519 332**	**81 519 632**	**81 519 340**
Function			3/2 NC	3/2 NC	3/2 NC	3/2 NF
Version			Without manual override	With manual override by impulse	With maintained manual override	With maintained manual override

Characteristics

Operating pressure		bar	1→ 8	1→ 8	1→ 8	1→ 8
Orifice diameter		mm	0.8	0.8	0.8	0,8
Flow at 6 bars		Nl/min	25	25	25	25
kV			0.3	0.3	0.3	0,3
Switching time		ms	5 → 15	5 → 15	5 → 15	5 → 15
Mechanical life (operations)			5 10^7	5 10^7	5 10^7	5 10^7
Operating temperature		°C	-10 → +50	-10 → +50	-10 → +50	-10 → +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			35	35	35	35
Rotatable connector 4 positions in 90° steps			●	●	●	●
Degree of protection	with M12 5-pin connector	IEC 529	—	—	—	—
	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

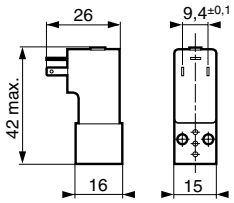
15x15 mm footprint

according to CNOMO E 06-36-120N

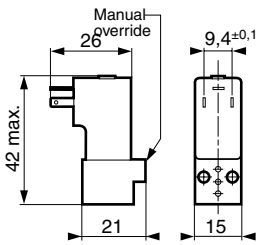


1 - Supply
2 - Output
3 - Exhaust

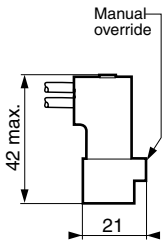
Encombrement
81 519 0



81 519 3
81 519 6



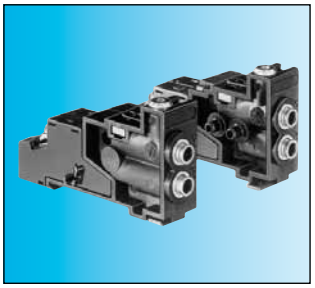
81 519 3

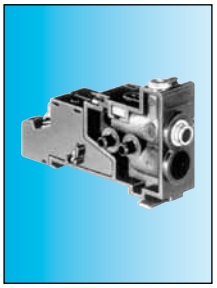


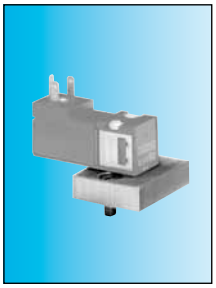
ATEX version products are available in the following catologues: **Pneumatic products for explosive atmospheres** or on our website **www.crouzet.com**

Sub-bases for miniature solenoid valves

Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive



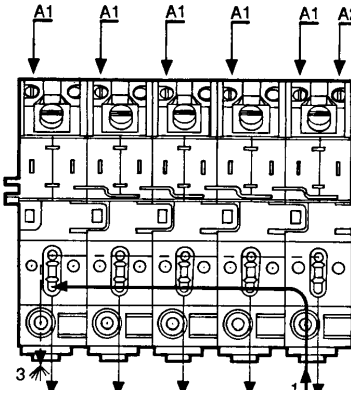




Part numbers				
Pair of end bases		81 514 101	—	—
Intermediate sub-base		—	81 514 161	—
Adaptor sub-base for CNOMO 06-05-80 / NFE 49066 footprint		—	—	79 453 569
Characteristics				
Pneumatic indicator on output		●	●	
Common supply		●	●	
Common exhaust		●	●	
Torque capacity	mm²	3	3	
Push-in connection for semi-rigid tubing Ø 4 mm (NFE 49100)	mm	●	●	
Mounting		DIN rail 35 mm	DIN rail 35 mm	2 screws M4 x 10
UL and cUL approval	g	MH 15085	MH 15085	—
Weight		65	30	50

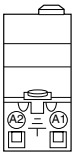
Connection

Pneumatic



1 - Supply
2 - Output
3 - Exhaust

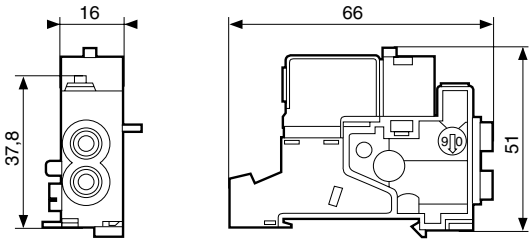
Electrical



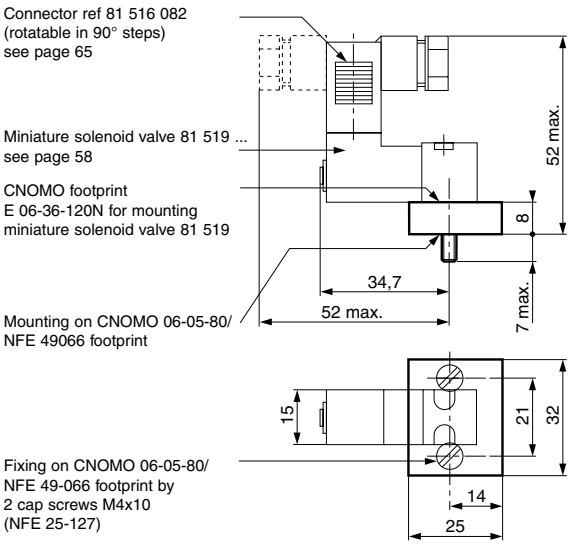
A1 - Pilot signal
A2 - Common
⏚ - Earth

Dimensions with miniature solenoid valve (page 58)

81 514 101 - 81 514 161



79 453 569



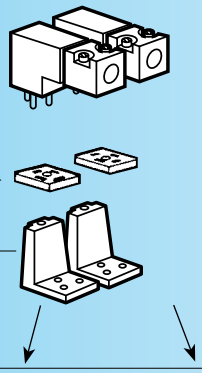
ATEX version products are available in the following catologues: **Pneumatic products for explosive atmospheres** or on our website **www.crouzet.com**

Electro-pneumatic miniature control valves

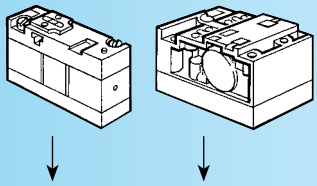
Mounting

Miniature solenoid valves

Indicators
- LED seals
- LED



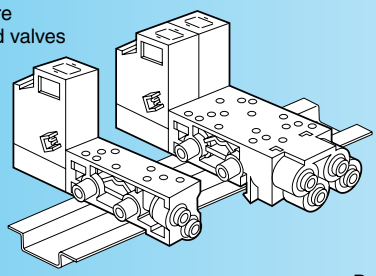
Valve modules
- Poppet
  3/2 monostable (17.5 mm)
  4/2 monostable (17.5 mm)
- Slide valve
  4/2 bistable (35 mm)
  4/2 monostable spring-return (35 mm)



Sub-bases

For miniature solenoid valves

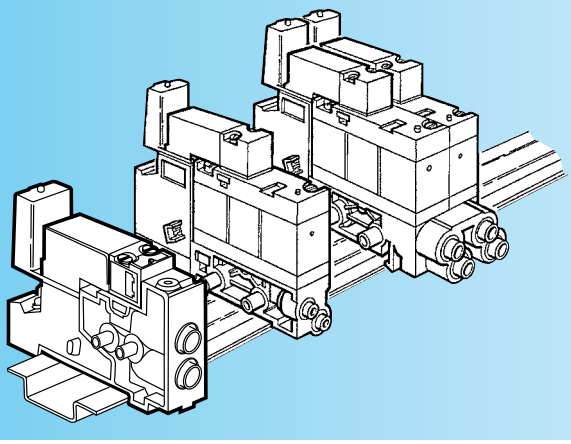
For valve modules



Double

Single

Complete product



Valve modules

- **Monostable, bistable**
- **3/2, 4/2**

Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive

81 513 100

81 513 600

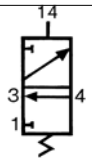
81 513 200

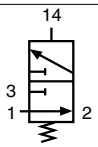
81 516 200

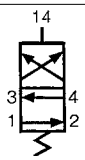
81 516 100

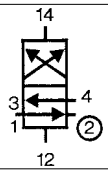
Function	3/2 NC monostable	3/2 NO monostable	4/2 monostable	4/2 bistable	4/2 monostable

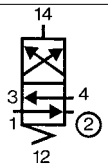
Symbol









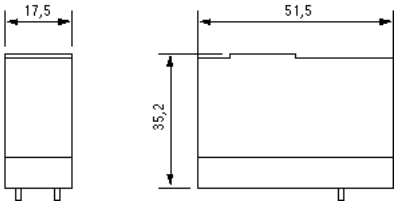


Characteristics

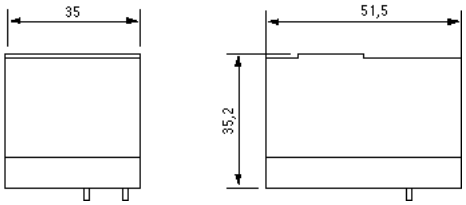
Width		mm	17.5	17.5	17.5	35	35
Working pressure		bars	3→8	3→8	3→8	2→8	3.5→8
Orifice diameter		mm	3	3	3	4	4
Flow at 6 bars	with Ø 4 mm sub-base (page 63)		200	200	200	300	300
	with Ø 6 mm sub-base (page 63)	Nl/min	300	300	300	400	400
Flow Rate	with Ø 4 mm sub-base (page 63)	kV	2.2	2.2	2.2	4	4
	with Ø 6 mm sub-base (page 63)		2.5	2.5	4	5	5
Operating temperature		° C	-10 → +50	-10 → +50	-10 → +50	-10 → +50	-10 → +50
Switching time for the valve only		ms	15	15	15	50	50
Mechanical life		operations	1.5×10^7	1.5×10^7	1.5×10^7	10^7	10^7
Weight		g	38	38	38	106	106

Dimensions

81 513



81 516

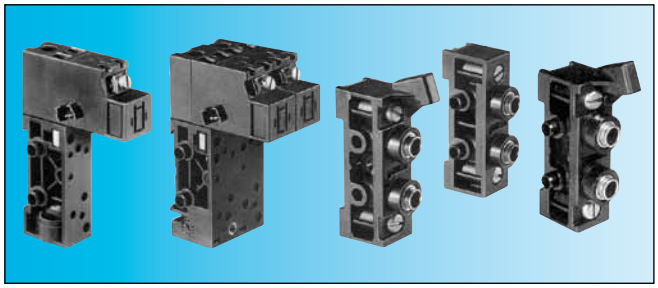


5

ATEX version products are available in the following catologues: **Pneumatic products for explosive atmospheres** or on our website **www.crouzet.com**

Sub-bases and end bases for miniature control valves

Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive



Part numbers

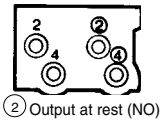
Mounting			Cabinet	Cabinet	Cabinet	Cabinet
Version			17.5 mm	35 mm	—	—
Push-in connection for semi-rigid tubing (NFE 49100)	Sub-bases	Ø 4 mm	81 513 060	81 517 101	—	—
		Ø 6 mm	81 513 065	81 517 201	—	—
	End bases (pair)	Ø 6 mm	—	—	81 513 011	—
	Intermediate supply module	Ø 6 mm	—	—	—	81 513 001

Characteristics

Torque capacity	mm²	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	55	110	86	44

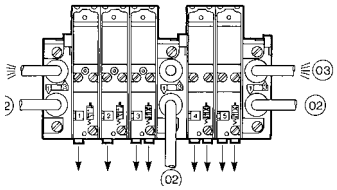
Connections **Pneumatic**

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)

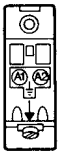
81 513 011 - 81 513 001



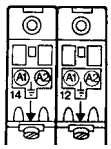
Note :
Each sub-base can accept
- sub-base 81 513 060-065 : 1 relay 3/2 or 4/2, width 17.5 mm
- sub-base 81 517 101-201 : 1 bistable relay 4/2 (width 35 mm) or 2 relays 3/2 or 4/2 (width 17.5 mm)

(02) 2 Supply ports
(03) 2 Exhaust ports
Integral push-in connections Ø 6 mm

Electrical



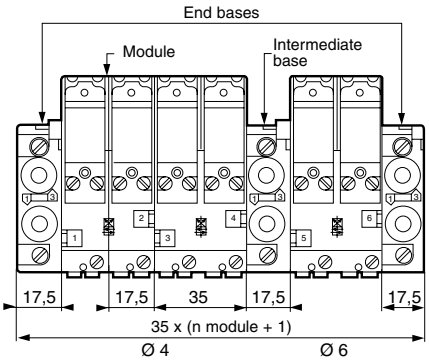
A1 - Pilot signal
A2 - Common
Earth

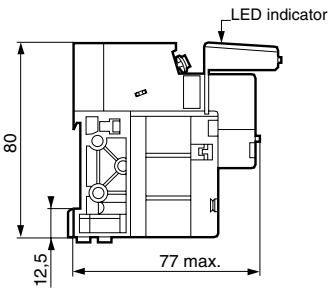


A1 - Operating control signal (14)
A2 - Common
A1 - Rest control signal (12)
A2 - Common
Earth

Degree of protection :
IP20 when assembled.

Dimensions with miniature control valves (page 62) + miniature solenoid valves (page 58) + indicators (page 65)





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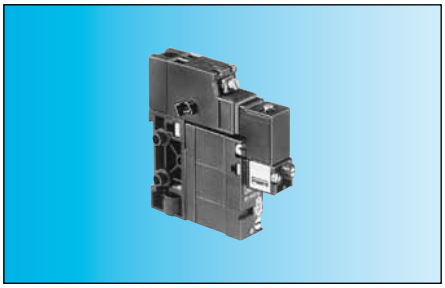
Valves and solenoids valves assembled



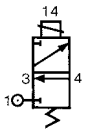
Contact us for

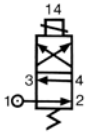
Other versions

Part numbers

Function		3/2 NC	4/2 monostable
Sub-base with push-in connection for semi-rigid tubing (NFE 49100)		Ø 4 ext.	Ø 4 ext.
Version		Solenoid valve with manual override by impulse	Solenoid valve with manual override by impulse
Voltage	24 VDC (+10% -15%)	**81 513 103**	**81 513 203**

Symbol



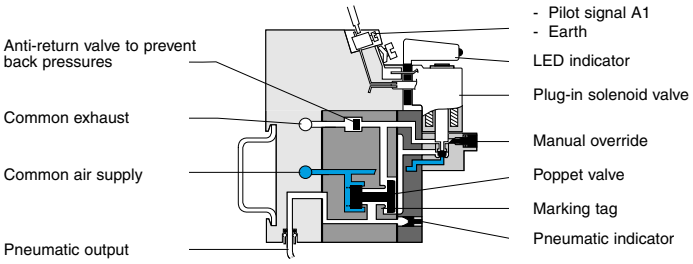


Characteristics

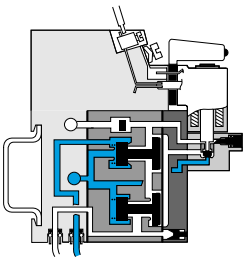
Operating pressure		bar	3→8	3→8
Orifice diameter		mm	3	3
Flow at	sub-base 81 513 060	NL/min	200	200
6 bars	sub-base 81 517 101	NL/min	—	—
KV	with sub-base 81 513 060		2.2	2.2
	with sub-base 81 517 101		—	—
Operating temperature		°C	-10 → +50	-10 → +50
Switching time of the assembly		ms	20	20
Mechanical life (operations) at 4 bars			1.5 x 10^7	1.5 x 10^7
Valve position will be maintained in the event of pressure loss and/or electrical current loss			—	—
Mounting			DIN rail 35 mm	DIN rail 35 mm
Weight		g	130	130
UL and cUL approval			MH15085	MH15085

Principle of operation

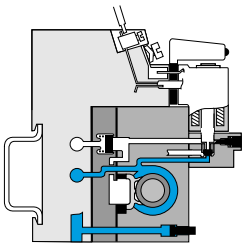
3/2 monostable module (NC)



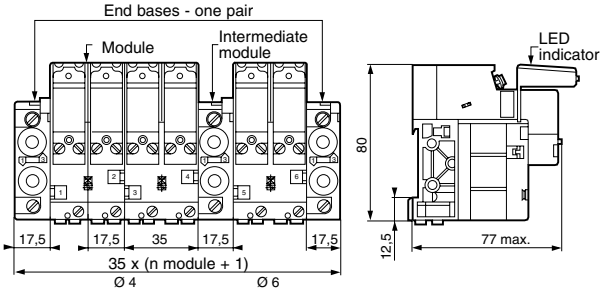
4/2 monostable module



4/2 bistable module



Dimensions

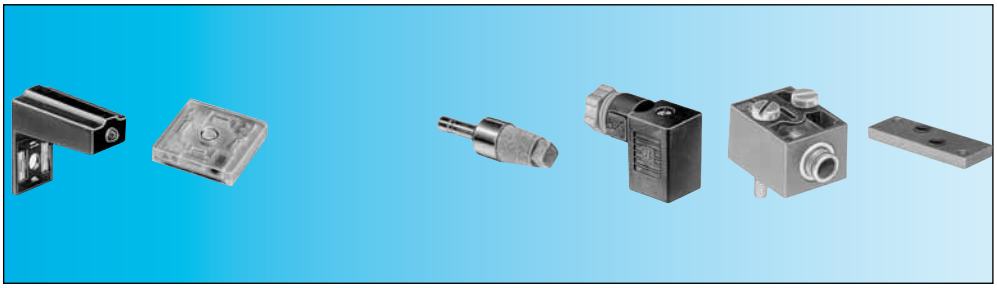


End bases not supplied (page 63)
Intermediate bases not supplied (page 63)
Indicators not supplied (page 65)

5

Accessories

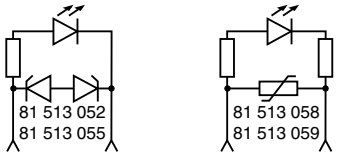
Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive



Part numbers

Visual indicators with anti-surge	24 V - 50-60 Hz ⎓	81 513 052	—		—	—	—	—
	48 V - 50-60 Hz ⎓	81 513 055	—		—	—	—	—
	110 V - 50-60 Hz ⎓	81 513 058	—		—	—	—	—
	230 V - 50-60 Hz (-10% +6 %)	81 513 059	—		—	—	—	—
LED seal	12 to 24 V - DC - AC	—	81 513 064		—	—	—	—
Packaging		(by 5)	(by 10)					
Exhaust silencer	Plug-in Ø 6	—	—		81 537 001	—	—	—
	Plug-in Ø 8	—	—		81 537 201	—	—	—
Connector for solenoid valve		—	—		—	81 516 082	—	—
Pneumatic pilots	Without manual override	—	—		—	—	81 516 081	—
	With manual override by impulse	—	—		—	—	81 516 091	—
Push-in connection for semi-rigid tubing Ø 4 mm (NFE 49100)		—	—		—	—	●	—
Blanking plate		—	—		—	—	—	81 516 085

Symbol



Characteristics

Consumption	W	—	0.24		—	—	—	—
Temperature	°C	—	- 10 → +50		—	—	—	—
Connection	mm	—	—		—	—	Instantané Ø 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	g	6	2		30	10	5	3

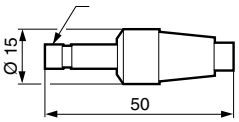
Connection

1 Pilot
2 signal
⏚ Earth (4)

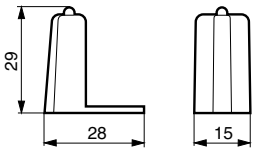
Dimensions

81 537 001 - 81 537 201

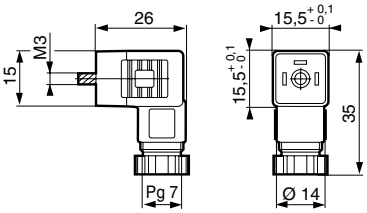
Mounted by plugging into push-in connector for semi-rigid tubing (NFE 49100)



81 513 052 - 81 513 055
81 513 058 - 81 513 059



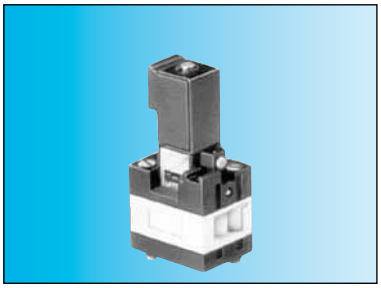
81 516 082



ATEX version products are available in the following catologues: **Pneumatic products for explosive atmospheres** or on our website **www.crouzet.com**

Solenoid valves

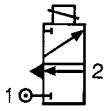
- **Reduced "dimensions"**
- **Mounted on sub-base**



Part numbers and voltages

Function		3/2 NC	
Mounting		On sub-base (54)	
Solenoid valves	24 V (+10% -15%)	**81 519 732**	
with	24 V - 50/60 Hz (+10% -15%)	**81 519 774**	
manual	48V - 50/60 Hz (+10% -15%)	**81 519 775**	
override	110 V - 50/60 Hz (+10% -15%)	**81 519 776**	
by impulse	220 - 230 V - 50/60 Hz (+10% -15%)	**81 519 777**	

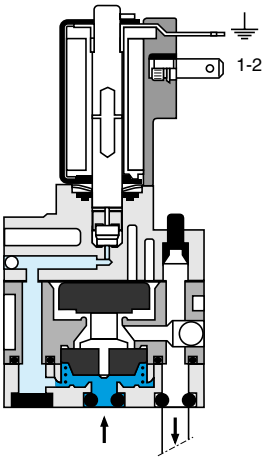
Symbol



Characteristics

Operating pressure		bar	2 → 8	
Orifice diameter		mm	2.7	
Flow at 6 bars		Nl/min	170	
Rotatable coil 4 positions in 90° steps			●	
Degree of protection (with connector 81 516 082 not supplied) (see page 65)		IEC 529	IP 65	
Mechanical life		operations	1.5×10^7	
Consumption	⎓	W	1	
	~	VA	2.5	
Operating temperature		°C	-5 → +50	
Weight		g	70	
UL and cUL approval			MH15085	

Principle of operation



Connections

Pneumatic { 1 - Supply
2 - Output

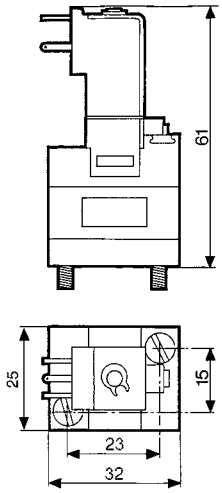
Electrical { 1 - 2 - Pilot signal
⏚ Earth

Electrical connection by connector 81 516 062 (see page 65)

Dimensions

81 519

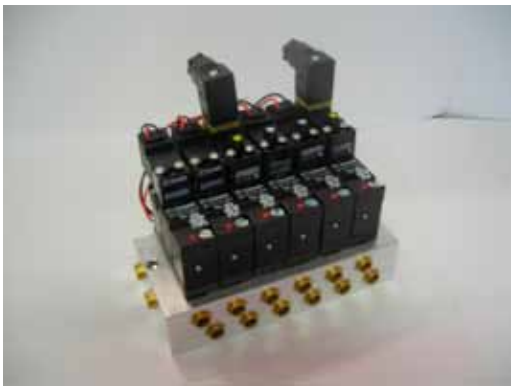
On separate sub-base



5

Specific islands "for integrators" (supplied in packs of 20)

Versions with interfaces 300 NL / mm



Configuration

1 - Specify the number and type of interfaces (3 / 2 mono - 4 / 2 mono - 4 / 2 bistable) see page 62.
2 - Specify the voltage, the type and method of the control valve connections, see page: 58-59 (Example: 24 V DC with manual switch maintained, exit leads).
3 - Please send us your application specifying your requirements and quantities per year, and we will respond as soon as possible.

Versions with interfaces 30 NL / mm

Configuration

1 - Specify the voltage, the type and method of the control valve connections, see page: 58-59 (Example: 24 V DC with manual switch maintained, exit leads).
2 - Please send us your application specifying your requirements and quantities per year, and we will respond as soon as possible.

Develop customised versions to specifications

Crouzet analyses your needs and offers a customised solution.

5

Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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Электронная почта: org@eplast1.ru
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