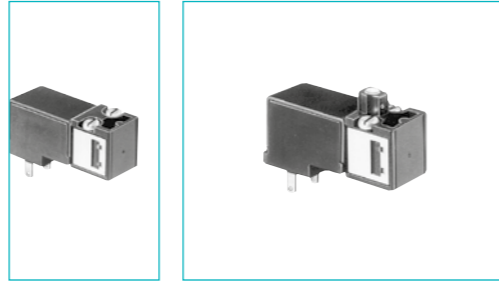


ELECTRO-PNEUMATIC CONTROL VALVES

Miniature solenoid valves for alternating current



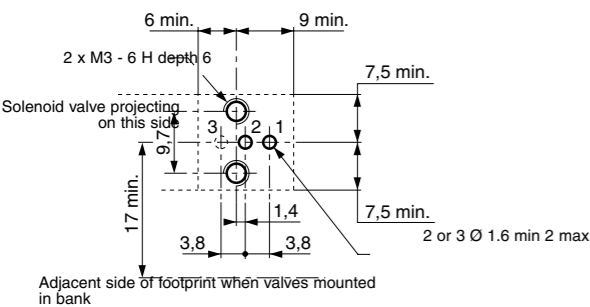
- Conform to the Low Voltage Directive
- For mounting on sub-base or footprint in accordance with CNOMO recommendation E-06-36-120N

| Part numbers (and voltages) | | 81 519 080 | 81 519 380 | 81 519 680 |
|-----------------------------|-------------------------|-------------------------|---------------------------------|---|
| Consumption | Voltage | | | |
| 2.5 VA | 24 V ~ 50-60 Hz | — | 81 519 381 | — |
| 2.5 VA | 48 V ~ 50-60 Hz* | — | 81 519 378 | 81 519 678 |
| 2.5 VA | 110 V ~ 50-60 Hz | — | 81 519 379 | 81 519 679 |
| 2.5 VA | 220 V- 230 V ~ 50-60 Hz | — | | |
| 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) |

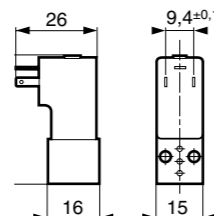
| Characteristics | | 81 519 080 | 81 519 380 | 81 519 680 |
|---|---------|-------------------|-------------------|-------------------|
| Operating pressure | bar | 1 → 8 | 1 → 8 | 1 → 8 |
| Orifice diameter | mm | 0.5 | 0.5 | 0.5 |
| Flow at 6 bars | NI/min | 12 | 12 | 12 |
| kV | | 0.12 | 0.12 | 0.12 |
| 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

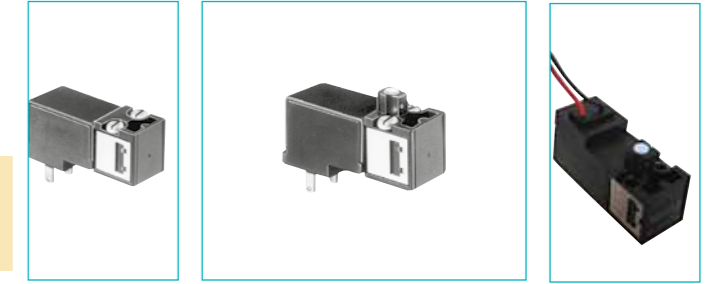


- 1 - Supply
- 2 - Output
- 3 - Exhaust



Manual override

Miniature solenoid valves for direct current



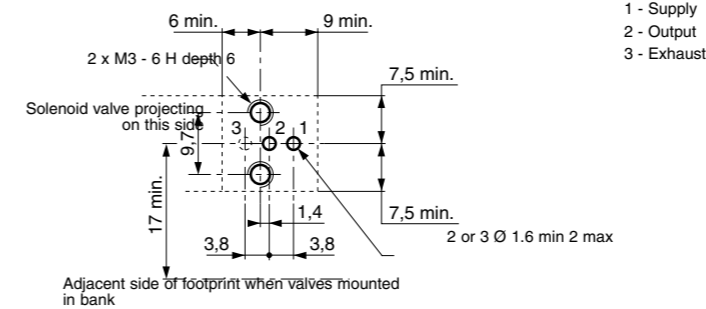
- Conform to the Low Voltage Directive
- For mounting on sub-base or footprint in accordance with CNOMO recommendation E-06-36-120N

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

| Part numbers (and voltages) | | 81 519 032 | 81 519 332 | 81 519 632 | 81 519 340 |
|-----------------------------|---------|-------------------------|---------------------------------|---------------------------------|---------------------------------|
| Consumption | Voltage | | | | |
| 1 W | 24 V = | | | | |
| 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 | | 81 519 032 | 81 519 332 | 81 519 632 | 81 519 340 |
|---|---------|-------------------|-------------------|-------------------|-------------------|
| 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 | NI/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 | — | — | — | — |
| 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 |

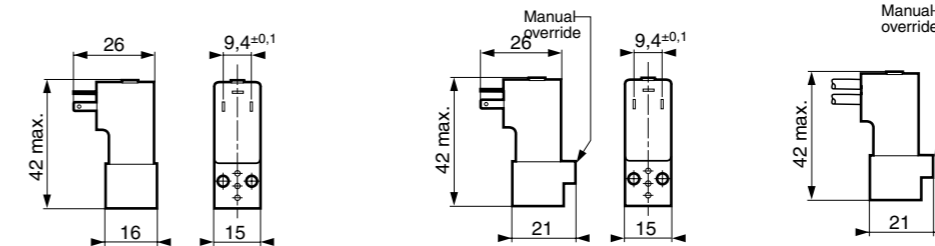
15x15 mm footprint
according to CNOMO E 06-36-120N



Encombrement 81 519 0

81 519 3
81 519 6

81 519 3

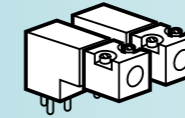


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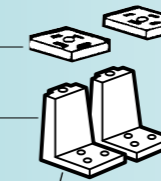
Electro-pneumatic miniature control valves

Mounting

Miniature solenoid valves

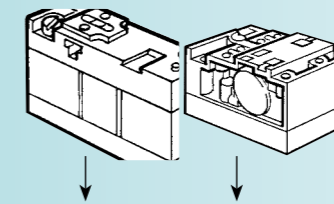


Indicators
- LED seals
- LED



Valve modules

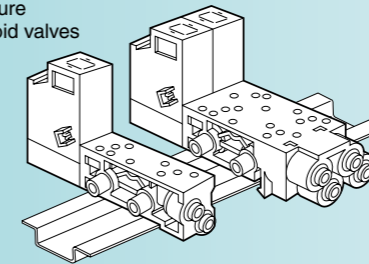
- Poppet
- 3/2 monostable (17.5 mm)
- 4/2 monostable (17.5 mm)
- Slide valve
- 4/2 bistable (35 mm)
- 4/2 monostable spring-return (35 mm)



Sub-bases

For miniature solenoid valves

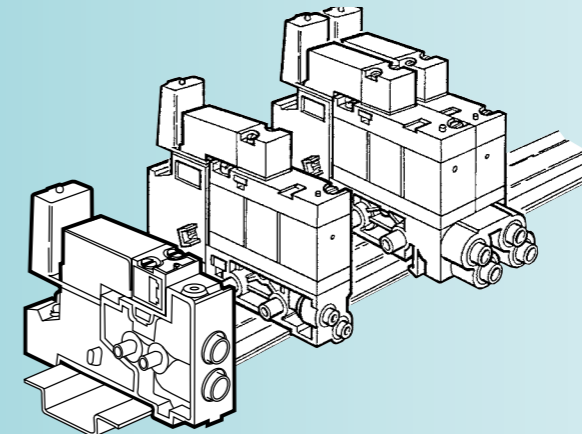
For valve modules



Single

Double

Complete product

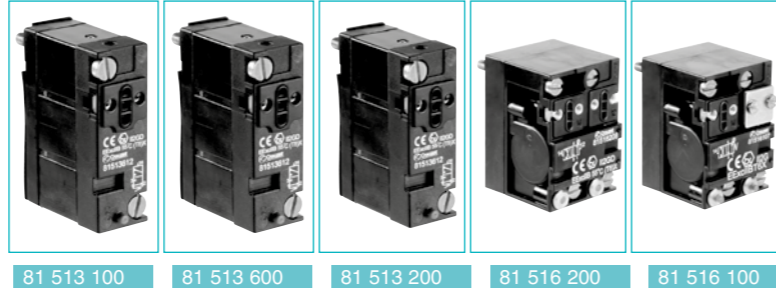


Valve modules

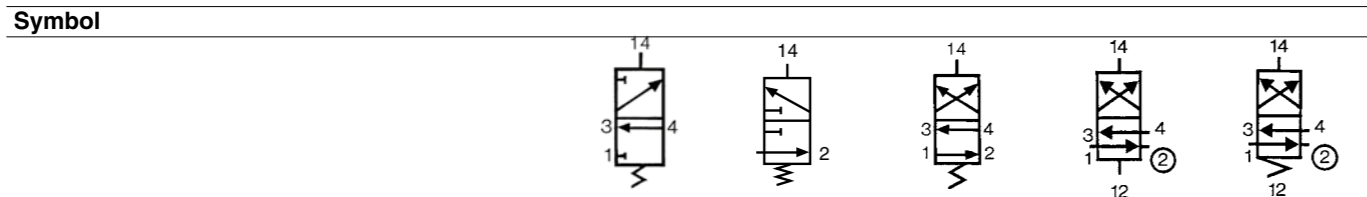
- › Monostable, bistable
- › 3/2, 4/2



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

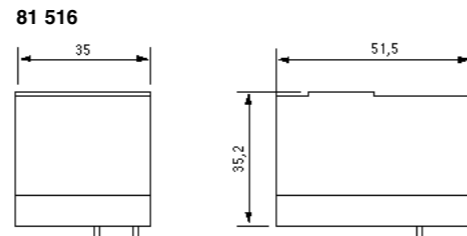
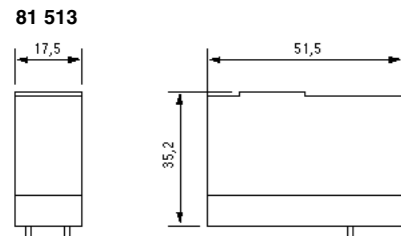


| Function | 3/2 NC monostable | 3/2 NO monostable | 4/2 monostable | 4/2 bistable | 4/2 monostable |
|----------|-------------------|-------------------|----------------|--------------|----------------|
|----------|-------------------|-------------------|----------------|--------------|----------------|



| Characteristics | | mm | 17.5 | 17.5 | 17.5 | 35 | 35 |
|-----------------------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------|-----------------|----|
| 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) | 300 | 300 | 300 | 400 | 400 | |
| Flow Rate | with Ø 4 mm sub-base (page 63) | 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 x 10 ⁷ | 1.5 x 10 ⁷ | 1.5 x 10 ⁷ | 10 ⁷ | 10 ⁷ | |
| Weight | g | 38 | 38 | 38 | 106 | 106 | |

Dimensions

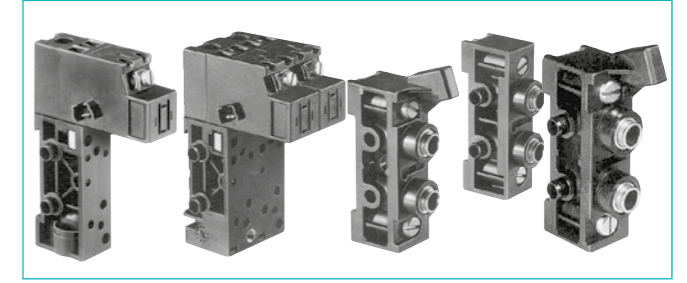


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Sub-bases and end bases for miniature control valves

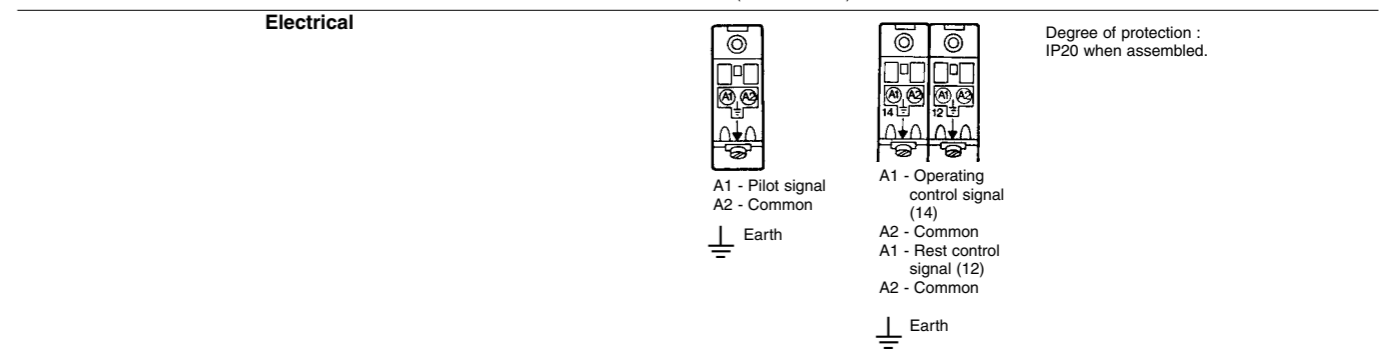
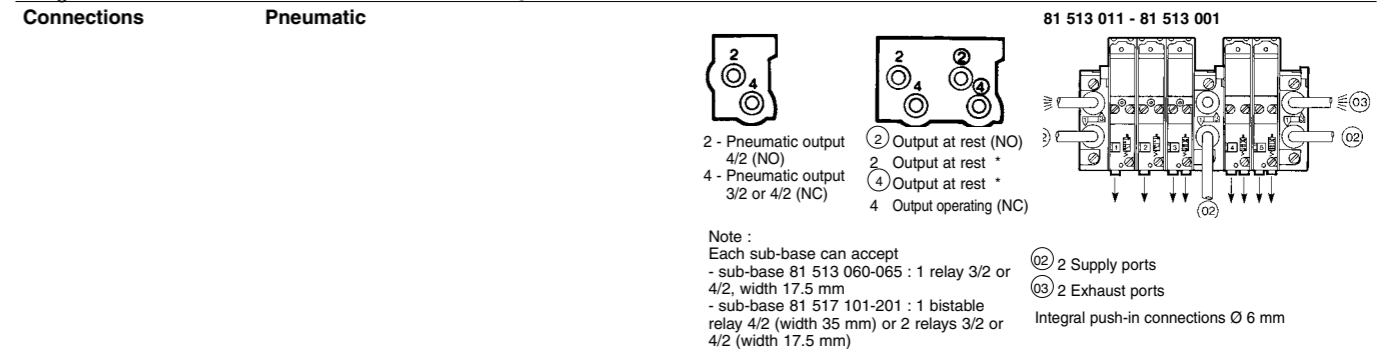


Also available in **ATEX** version for use in potentially explosive atmospheres in accordance with 94/9/EC Directive

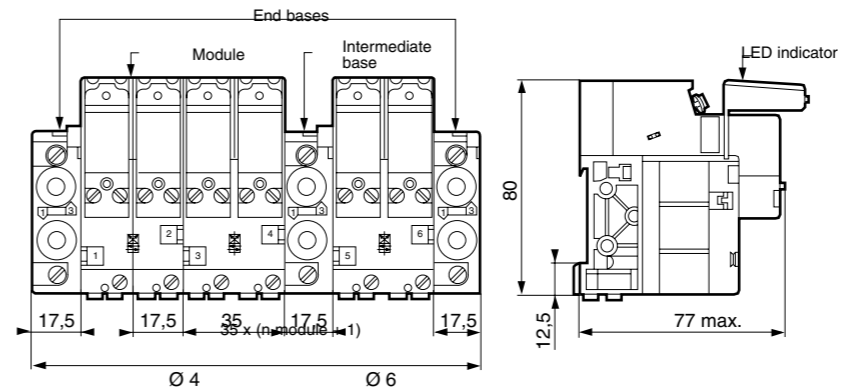


| Part numbers | | Cabinet | Cabinet | Cabinet | Cabinet |
|--|----------------------------|------------|------------|------------|------------|
| Mounting | | 17.5 mm | 35 mm | — | — |
| Version | | 81 513 060 | 81 517 101 | — | — |
| Push-in connection for semi-rigid tubing (NFE 49100) | Sub-bases | Ø 4 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 | | mm ² | 3 | 3 | — | — |
|---------------------|---|-----------------|----------------|----------------|----------------|----------------|
| Torque capacity | | mm ² | 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 |

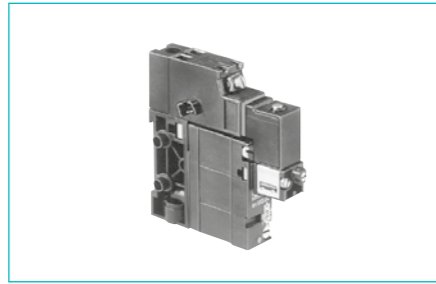


Dimensions with miniature control valves (page 62) + miniature solenoid valves (page 58) + indicators (page 65)



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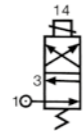
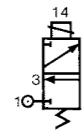
Valves and solenoids valves assembled



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 |

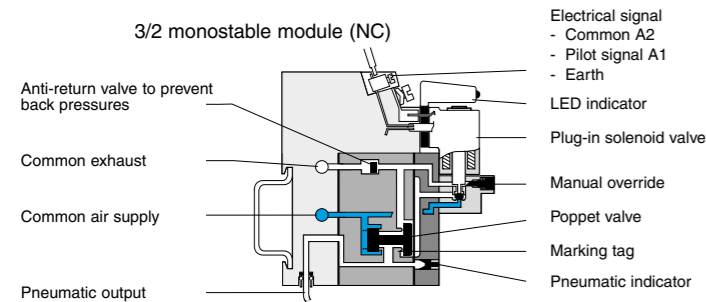
Symbol



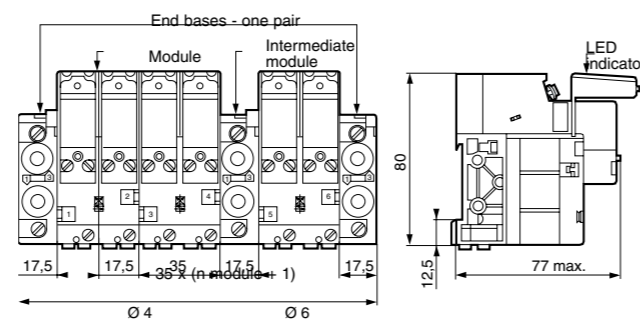
Characteristics

| | | | |
|--|--|-----------------------|-----------------------|
| Operating pressure | bar | 3→8 | 3→8 |
| Orifice diameter | mm | 3 | 3 |
| Flow at 6 bars | sub-base 81 513 060 sub-base 81 517 101 | NL/min 200 | NL/min 200 |
| KV | with sub-base 81 513 060 with sub-base 81 517 101 | 2.2 | 2.2 |
| 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



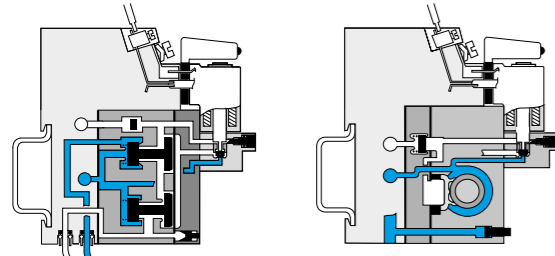
Dimensions



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

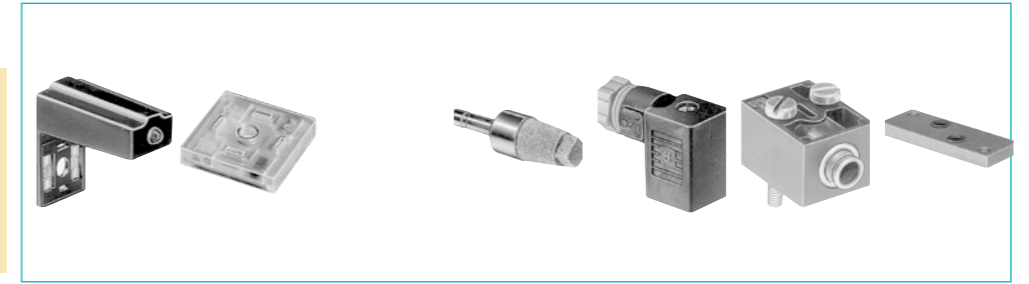
4/2 monostable module

4/2 bistable module



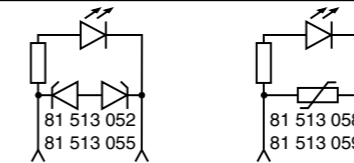
Accessories

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



| Part numbers | | | | | | | | | |
|---|---------------------------------|------------|------------|------------|------------|------------|---|---|------------|
| Visual indicators | 24 V - 50-60 Hz | 81 513 052 | — | — | — | — | — | — | — |
| with anti-surge | 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 | Without manual override | — | — | — | 81 516 082 | — | — | — | — |
| | With manual override by impulse | — | — | — | — | 81 516 081 | — | — | — |
| Pneumatic pilots | 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 |

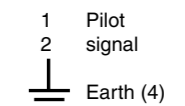
Symbol



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 |

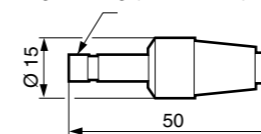
Connection



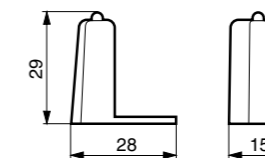
Dimensions

81 537 001 - 81 537 201

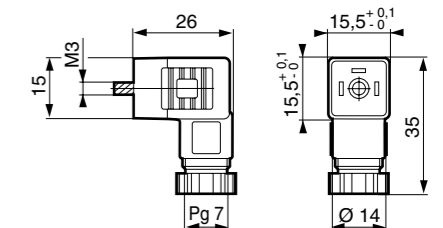
Mounted by plugging into push-in connector for semi-rigid tubing (NFE 49100)



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



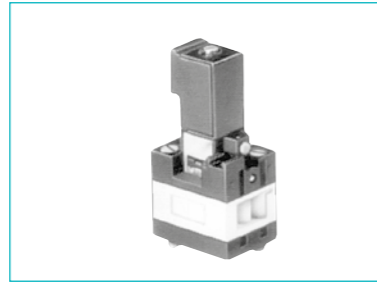
81 516 082



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Solenoid valves

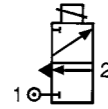
- › Reduced "dimensions"
- › Mounted on sub-base



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 |

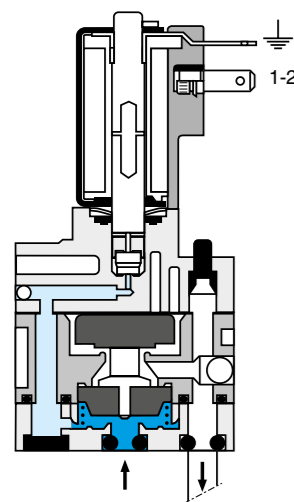
Symbol



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 x 10 ⁷ |
| Consumption | W | 1 |
| | VA | 2.5 |
| Operating temperature | °C | -5 → +50 |
| Weight | g | 70 |
| UL and cUL approval | | MH15085 |

Principle of operation



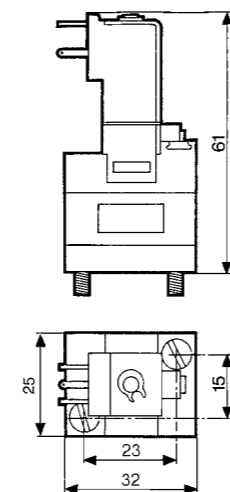
Connections

- 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



Miniature control valves, 17.5 mm

→ Electro-pneumatic interface block

Complete block, ready to install, consisting of:

- Preconfigured 8-position sub-base
- 6 4/2 monostable valve modules with 24 V[~] pilot holes
- 2 blanking plates (for extension if necessary)
- 1 connection cable

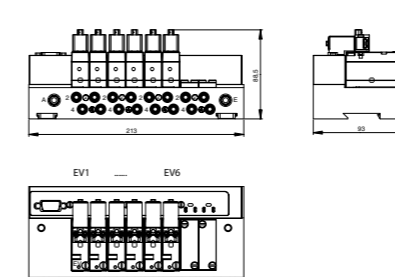


Part numbers

| Part numbers | 16 outputs | 16 outputs |
|---|--|--|
| Part numbers | 81513241 | 81513238 |
| Electrical characteristics | | |
| Supply voltage | 24 V [~] ± -10% | 24 V [~] ± -10% |
| Courant max. absorbé sur le 24 V de SUBD (mA) | 500 | 500 |
| Courant absorbé par chaque électrovanne | 60 | 60 |
| Response time (ms) | 15 | 15 |
| LED display | Yes (integrated in the sub-base) | Yes (integrated in the sub-base) |
| Protection against voltage surges | Yes | Yes |
| Electrical connections | | |
| Type of cable | Sub D9 AWG 24 wires | Sub D9 AWG 24 wires |
| Cable length | 2 m | 2 m |
| Pneumatic characteristics | | |
| Function | 6 4/2 monostable valve modules (81513200) + 2 free positions | Whitout |
| Operating pressure bars | 3 → 8 b | 3 → 8 b |
| Flow at 6 bars NL/mim | 300 | 300 |
| Mechanical life (operations) | 1.5 x 10 ⁷ | 1.5 x 10 ⁷ |
| Working medium | Compressed air or inert gas, 50 µm filtered non-lubricated air | Compressed aire or inert gaés, 50 µm filtered non-lubricated air |
| Pneumatic connections | | |
| Power supply connection | Push-in connection Ø 8 mm | Push-in connection Ø 8 mm |
| Output connections | Push-in connection Ø 6 mm | Push-in connection Ø 6 mm |
| Connection of common exhaust | Push-in connection Ø 8 mm | Push-in connection Ø 8 mm |
| General characteristics | | |
| Operating temperature range IEC 68214 (°C) | -5 → +50 | -5 → +50 |
| Storage temperature IEC 68-2-14 (°C) | -15 → +50 | -15 → +50 |
| Protection (IEC/EN 60529) | IP 20 | IP20 |
| Mounting | On DIN rail or via two M5 screws (according to mounting plan) | On DIN rail or via two M5 screws (according to mounting plan) |
| Weight (g) | 1350 | 960 |
| Comments | | |
| Other configurations on request | | |

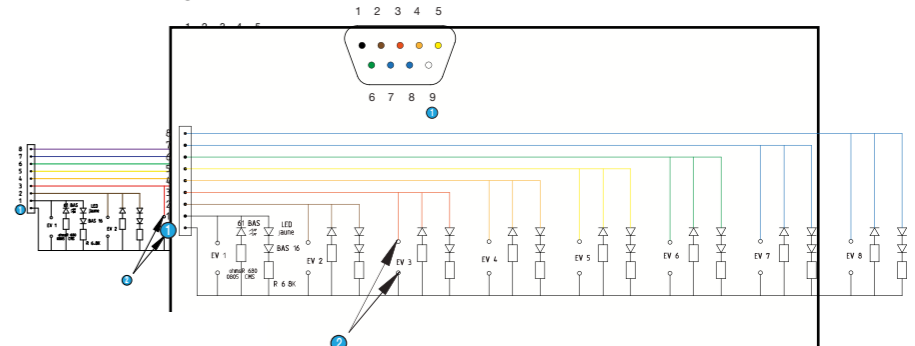
Dimensions (mm)

81513241



Connections

Connector wiring



- 1 Commun 0 V
- 2 Clips femelle CI