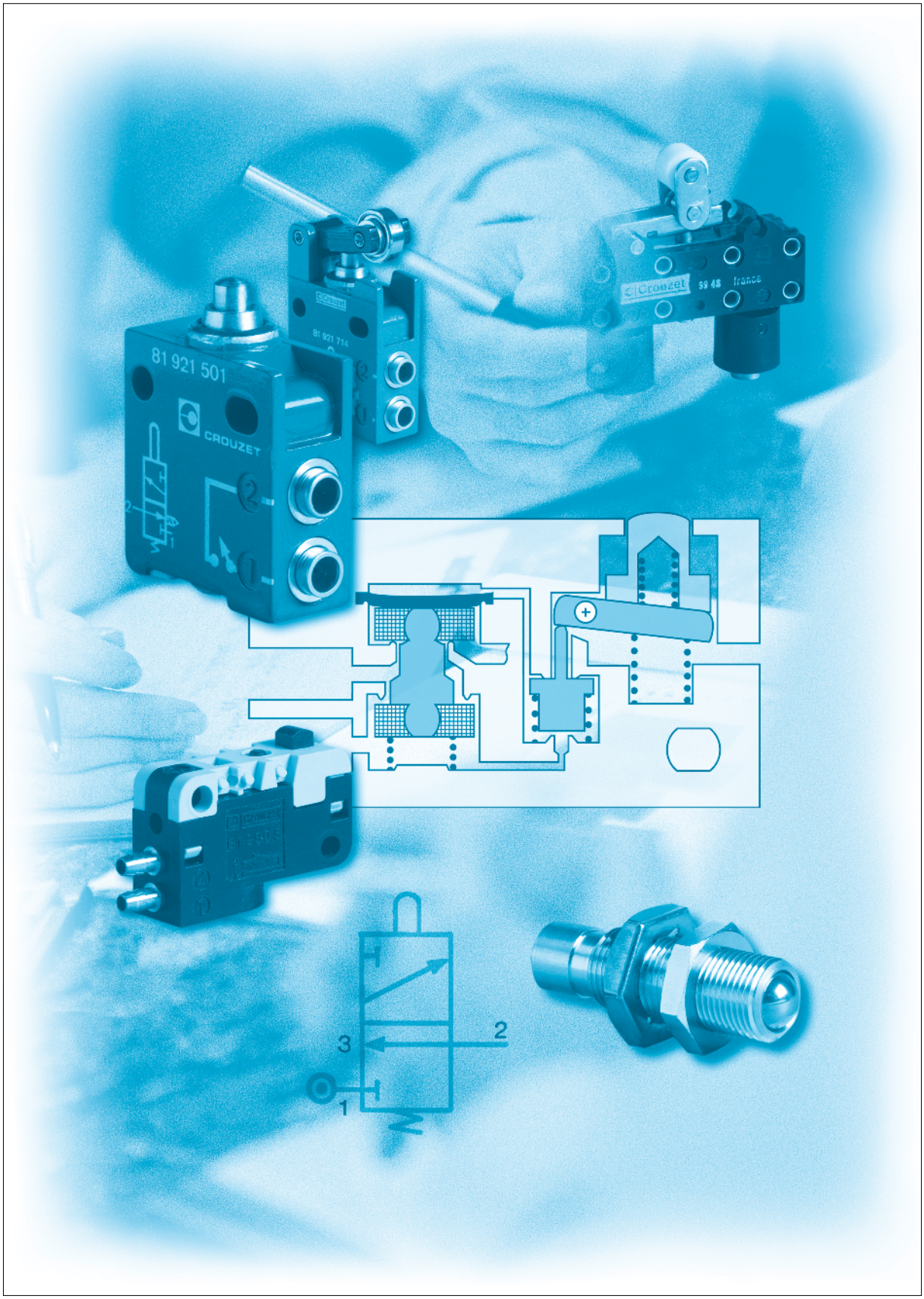
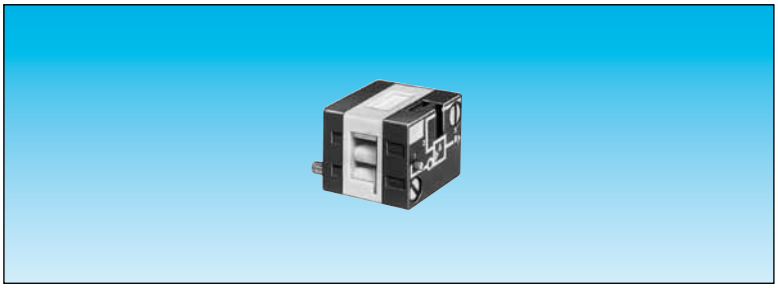
# Position detectors



# Pressure decay sensor

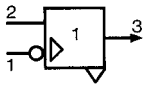
■ **100 % pneumatic**



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

| Pressure decay sensor | 81 504 025 |
|---|---|

## Symbol

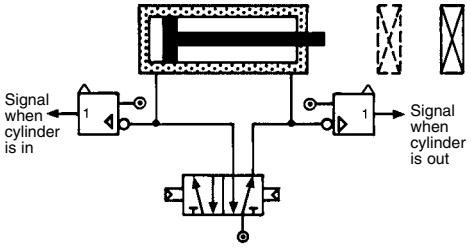



## Characteristics

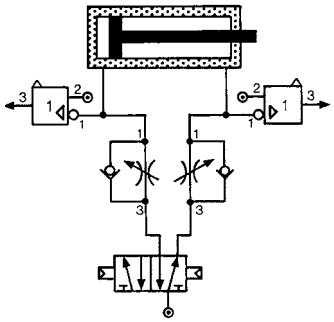
| | | |
|---|---|---|
| Operating pressure | bar | 2 → 8 |
| Flow at 6 bars | Nl/min | 200 |
| Tripping point with 6 bar supply | b | 0.3 |
| Connection | | Sub-base page 54-55 |
| Operating temperature | °C | -5 → +50 |
| Mechanical life | operations | ≥$10^7$ |
| Weight | g | 25 |

**Connections**

Without flow restrictor




With flow restrictor

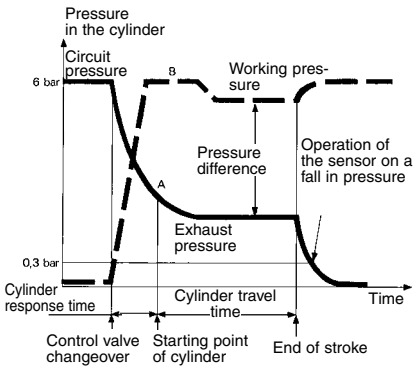



**Principle of operation**

Fitted in-line between the cylinder and the control valve, the sensor will give an output when the pressure in this line is exhausted and the cylinder is at end of stroke.

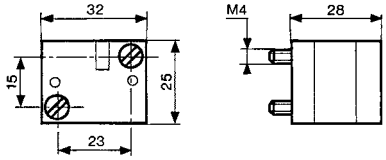
For the correct usage of sensors on a falling pressure, it is recommended that the practical cylinder load is limited to 60% of the theoretical force.

Evolution of pressure within a double-acting cylinder




**Dimensions**

**81 504 025**

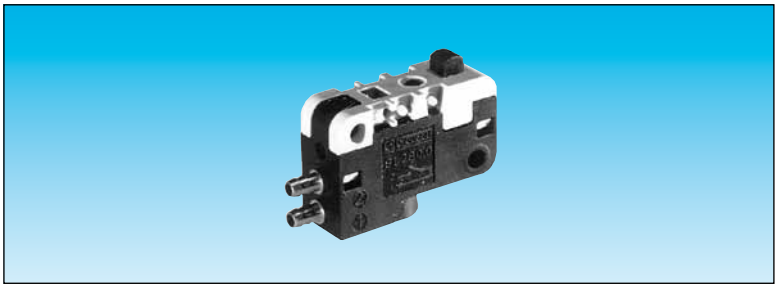



**ATEX** version products are available in the following catologues: **Pneumatic products for explosive atmospheres** or on our website **www.crouzet.com**

# Low force position detector

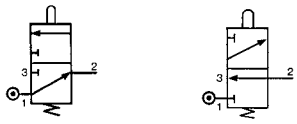
- **100 % pneumatic**
- **Conforme à la nore DIN 41365 Forme A**
- **Faible effort d'actionnement < 50 g à 6 bars**
- **Pas de consommation permanente d'air comprimé**

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



| Function | | | 81 290 501 | — |
|---|---|---|---|---|
| | NO | | — | 81 290 001 |
| | NC | | | |

## Symbol

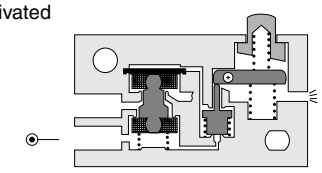


## Characteristics

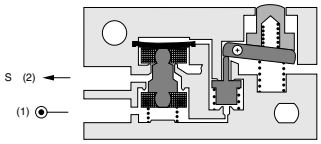
| | | | | |
|---|---|---|---|---|
| Orifice diameter | | mm | 2 | 2 |
| Operating pressure | | bar | 3 → 8 | 3 → 8 |
| Flow at 4 bars | | Nl/min | 100 | 100 |
| Activation force at 6 bars | | N | < 0,5 | < 0,5 |
| Permissible fluids (air / inert gas) | | | ● | ● |
| Max/min temperatures | of fluid | °C | -10 → +50 | -10 → +50 |
| | operating | °C | -10 → +60 | -10 → +60 |
| | storage | °C | -40 → +70 | -40 → +70 |
| Mechanical life at 6 bars | | operation | $10^7$ | $10^7$ |
| Response time | on activation | ms | ≤ 15 | ≤ 15 |
| | on release | ms | ≤ 15 | ≤ 15 |
| Barb connection for semi-rigid tubing | | | 2.7 x 4 | 2.7 x 4 |
| Weight | | g | 8.5 | 8.5 |

**Principle of operation NC**

Desactivated



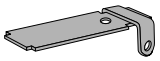
Activated



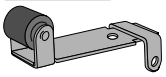

## Operation accessories

Unless otherwise requested, flat and roller-ended levers are supplied loose.

161 A
flat R 25.4
70 507 524

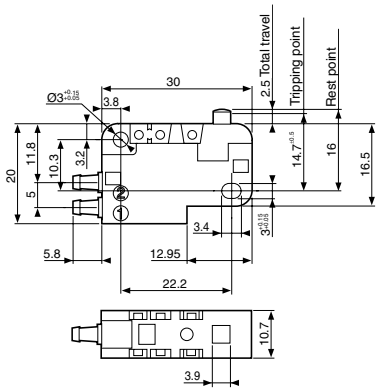


161 E
with roller R 24.1
70 507 529

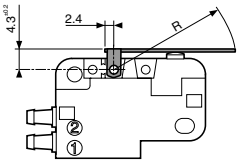


**Dimensions**

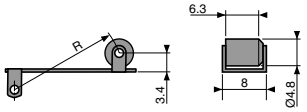
DIN 41635 Form A




161 A
R 25.4 ±0,2



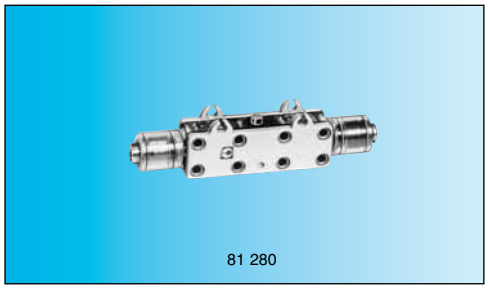

161 E
R 24.1 ±0,2




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# “Microvalve” series position detectors

■ **100 % pneumatic**



81 280

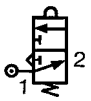


81 281

| Version | | | | |
|---|---|---|---|---|
| | NO | **81 280 010** | **81 281 010** | — |
| | NC | **81 280 510** | **81 281 510** | **81 283 510** |
| Features | | Horizontal output | Vertical output | Rear connection by screw |

**Symbol**

NO



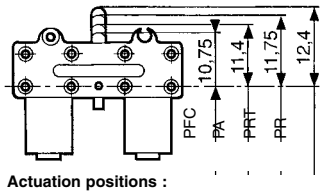
NC



**Characteristics**

| | | | | |
|---|---|---|---|---|
| Operating pressure | bar | 2 → 8 | 2 → 8 | 2 → 8 |
| Orifice diameter | mm | 2.7 | 2.7 | |
| Flow at 6 bars | Nl/min | 200 | 200 | 138 |
| Operating force at 6 bars | N | 15 | 15 | 15 |
| Effective travel | mm | 1 | 1 | 1 |
| Push-in connection for semi-rigid tubing (NFE 49100) | mm | Ø 4 | Ø 4 | Ø 4 |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 |
| Mechanical life | operat. | 5 x $10^6$ | 5 x $10^6$ | 5 x $10^6$ |
| Weight | g | 14 | 14 | 20 |

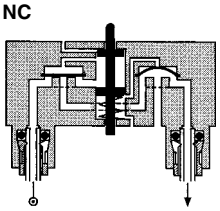
**Principle of operation**



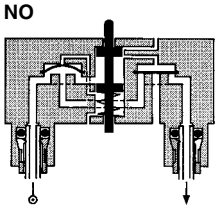

**Actuation positions :**

PFC : End of travel position
PA : Operating position (max output kV)
PRT : Release position (max. exhaust kV)
PR : Rest position

**NC**

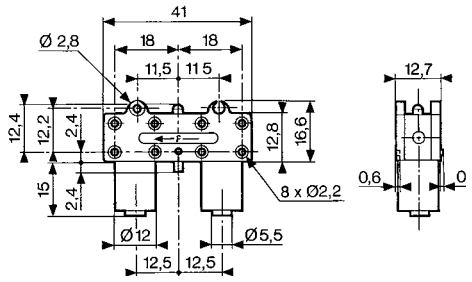


**NO**

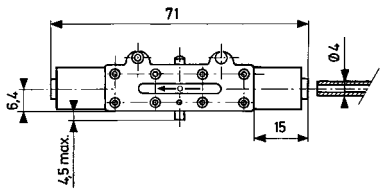


**Dimensions**

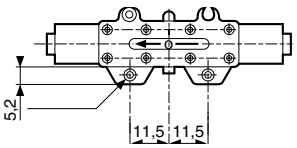
**81 281 010 - 81 281 510**




**81 280 010 - 81 280 510**

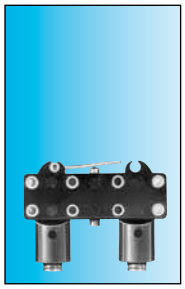
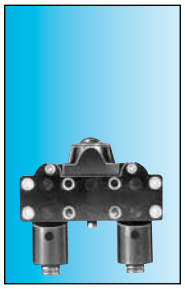
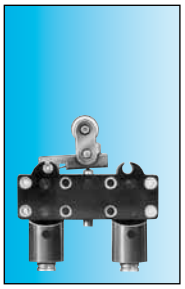
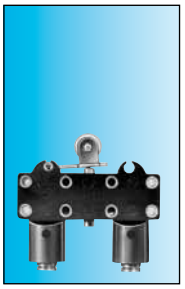
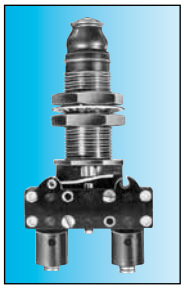



**81 283 510**



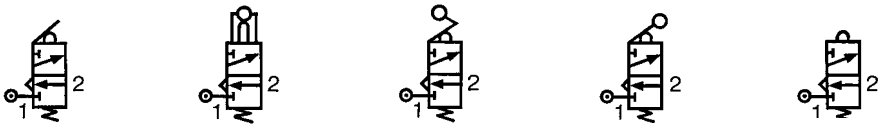
# “Microvalve” series position detectors

■ 100 % pneumatic

| Features | | | Short lever | With ball | Roller trip | With roller | Threaded barrel Ø 16 Plunger |
|---|---|---|---|---|---|---|---|
| Version | NC | Vertical output | 81 281 502 | 81 281 504 | 81 281 508 | 81 281 509 | 81 737 501 |

## Symbol

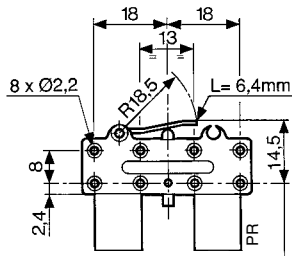



## Characteristics

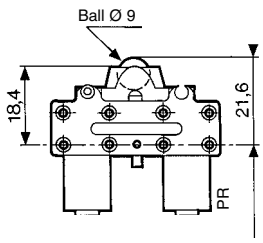
| | | | | | | |
|---|---|---|---|---|---|---|
| Operating pressure | bar | 2 → 8 | 2 → 8 | 2 → 8 | 2 → 8 | 2 → 8 |
| Orifice diameter | mm | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Flow at 6 bars | Nl/min | 200 | 200 | 200 | 200 | 200 |
| Operating force at 6 bars | N | 15 | 15 | 15 | 15 | 25 |
| Effective travel | mm | 1 | 1 | 1 | 1 | 1 |
| Push-in connection for semi-rigid tubing (NFE 49100) | mm | Ø 4 | Ø 4 | Ø 4 | Ø 4 | Ø 4 |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 |
| Mechanical life | operat. | 5 x $10^6$ | 5 x $10^6$ | 5 x $10^6$ | 5 x $10^6$ | 5 x $10^6$ |
| Weight | g | 16 | 18 | 18 | 18 | 90 |

## Dimensions

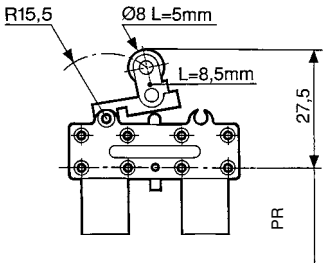
**81 281 502**



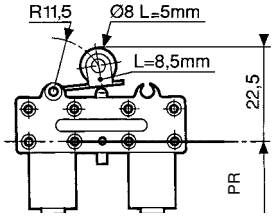

**81 281 504**



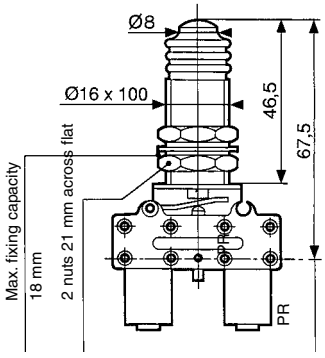

**81 281 508**




**81 281 509**




**81 737 501**



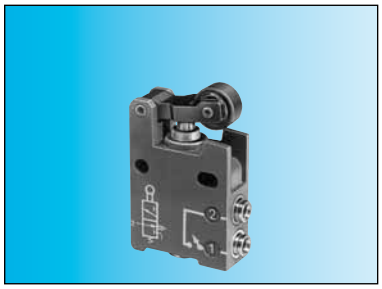
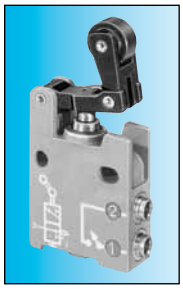

**Actuation positions :**

PR : Rest position

2

# "Miniature" series position detectors

■ **100 % pneumatic**
■ **All metal**

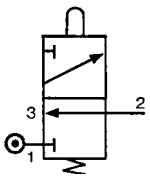




## Part numbers

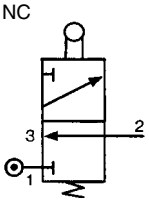
| | | 81 921 501 | 81 921 701 | 81 921 702 | 81 921 707 |
|---|---|---|---|---|---|
| Version | Push-in connection for semi-rigid tubing (NFE 49100) | | | | |
| NC | Ø 4 silenced exhaust | — | — | — | — |
| | M5 connectable exhaust | — | — | — | — |
| | Ø 4 connectable exhaust * | — | — | — | — |
| | Ø 6 connectable exhaust * | — | — | — | — |
| NO | Ø 4 silenced exhaust | — | — | — | — |
| | Ø 6 silenced exhaust | — | — | — | — |
| Control | | Simple plunger | Lever with plastic roller | Lever with roller bearing | Lever with one-way trip plastic roller |

## Symbol

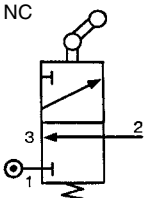
NC




NC




NC

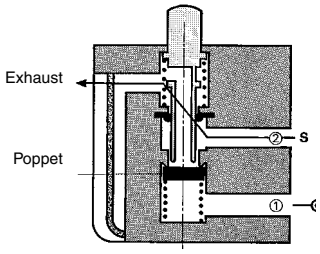



## Characteristics

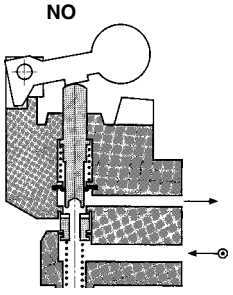
| | | 81 921 501 | 81 921 701 | 81 921 702 | 81 921 707 |
|---|---|---|---|---|---|
| Operating pressure | bar | 0.1 → 8 | 0.1 → 8 | 0.1 → 8 | 0.1 → 8 |
| Orifice diameter | mm | 2.7 | 2.7 | 2.7 | 2.7 |
| Flow at 6 bars | Nl/min | 200 | 200 | 200 | 200 |
| Actuation force at 6 bars | N | 18 | 18 | 18 | 18 |
| Circuit function : NC | | ● | ● | ● | ● |
| Circuit function: NO | | — | — | — | — |
| Connectable exhaust | | | | | |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 |
| Mechanical life | operations | $\geq 10^7$ | $\geq 10^7$ | $\geq 10^7$ | $\geq 10^7$ |
| Weight | g | 62 | 75 | 80 | 77 |

### Principle of operation

**NC**



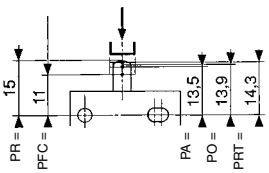

**NO**



### Actuation travel

**Vertical attack**

Simple plunger

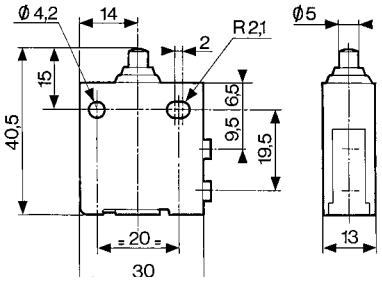



**Actuation positions :**

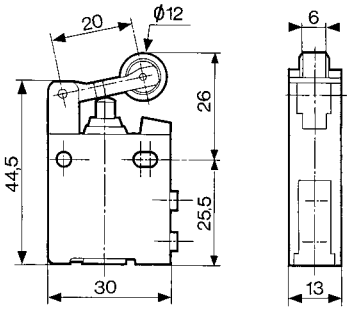
PA : Operating position (max output kV)
PFC : End of travel position
PO : Mid-position closed (no exhaust, no outlet)
PRT : Release position (max exhaust kV)
PR : Rest position

### Dimensions

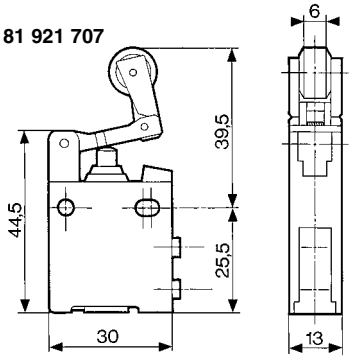
**81 921 501**




**81 921 701 - 81 921 702**

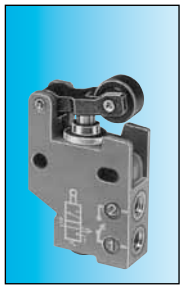
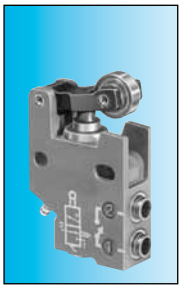
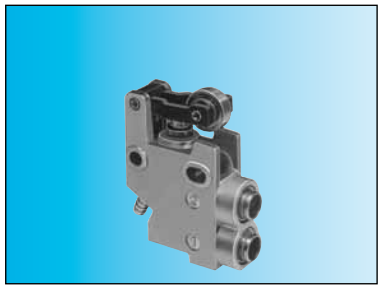



**81 921 707**

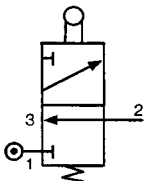
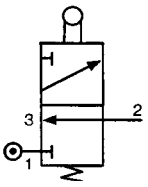
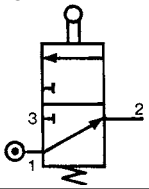



* with barb for tube Ø 2.7 x 4

**Material: body zamak**

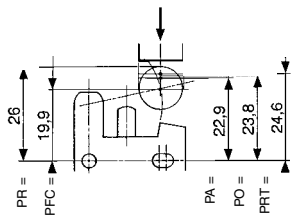




| | | | |
|---|---|---|---|
| — | | | |
| — | — | — | — |
| **81 921 806** | — | — | — |
| — | **81 921 714** | — | — |
| — | — | **81 921 719** | **81 921 717** |
| — | — | **81 921 911** | **81 921 912** |
| — | — | **81 921 901** | **81 921 902** |
| Lever with plastic roller | Lever with roller bearing | Lever with plastic roller | Lever with roller bearing |

| | | | |
|---|---|---|---|
| NC | | NC | NO |
|  | |  |  |

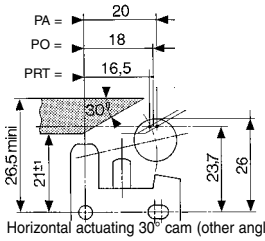
| | | | |
|---|---|---|---|
| 0.1 → 8 | 0.1 → 8 | 0.1 → 8 | 0.1 → 8 |
| 2.7 | 2.7 | 2.7 | 2.7 |
| 200 | 200 | 200 | 200 |
| 18 | 18 | 18 | 18 |
| ● | ● | ● | ● |
| — | — | ● | ● |
| | | ● | ● |
| -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 |
| $\geq 10^7$ | $\geq 10^7$ | $\geq 10^7$ | $\geq 10^7$ |
| 75 | 80 | 100 | 100 |

With lever



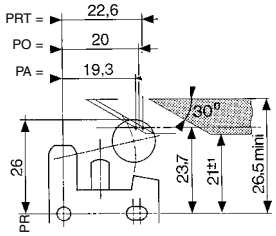

**Horizontal actuating 30° cam (other angles of attack are also possible, 45° even 90°).**

With lever

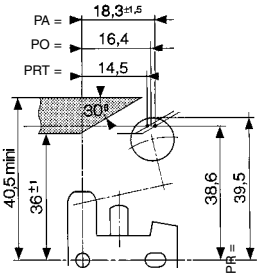



Horizontal actuating 30° cam (other angles of attack are also possible, 45° even 90°).

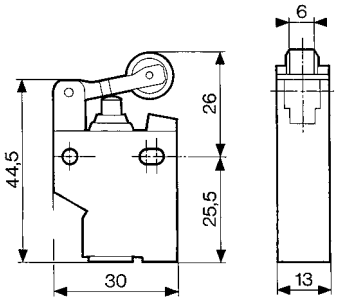
With lever



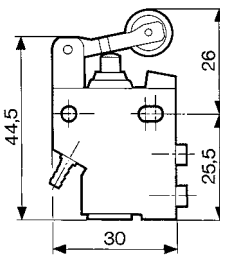

One-way trip lever



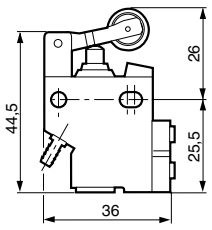

**81 921 806**




**81 921 714**




**81 921 717 - 81 921 719**
**81 921 901 - 81 921 902**
**81 921 911 - 81 921 912**

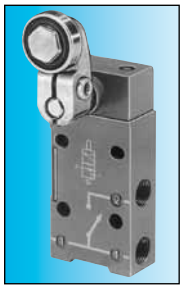


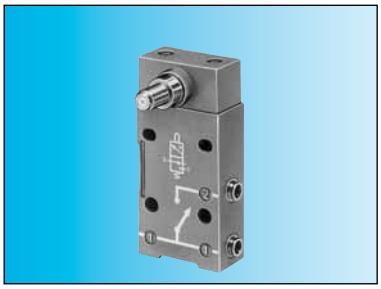

**Material: body zamak**
**Other configuration on demand**

# "Compact" series position detectors

■ 100 % pneumatic
■ All metal



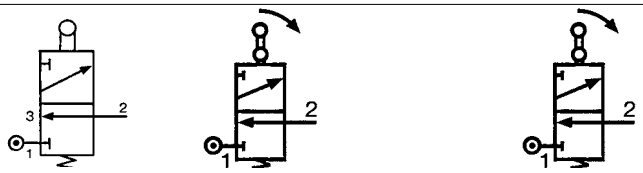




## Part numbers

| Features | Direct acting | Rotary actuator | Rotary actuator | Rotary actuator |
|---|---|---|---|---|
| | 81 922 401 | 81 922 205 | 81 922 010 | 81 922 210 |
| Version | Roller plunger with unthreaded barrel | Right-hand rotary head with roller lever (CNOMO) | Programmable rotary head without lever | Programmable rotary head without lever |

## Symbol



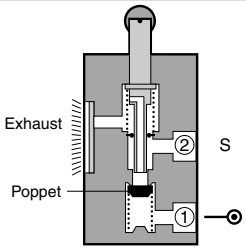

## Characteristics

| | | | | | | |
|---|---|---|---|---|---|---|
| Connection | BSP | — | — | 1/8 | — | 1/8 |
| | push-in for semi-rigid tubing (NFE 49100) mm | Ø 4 | — | — | Ø 4 | — |
| Operating pressure | bar | 0.1 → 8 | 0.1 → 8 | | 0.1 → 8 | 0.1 → 8 |
| Bore diameter | mm | 3 | 3 | | 3 | 3 |
| Flow at 6 bars | Nm³/h | 200 | 200 | | 200 | 200 |
| Activation force at 6 bars | daN | 2.5 | 2.5 | | 2.5 | 2.5 |
| Circuit function: NC | | ● | ● | | ● | ● |
| Mechanical life | operations | > $10^7$ | > $10^7$ | | > $10^7$ | > $10^7$ |
| Silenced or connectable (1/8) exhaust | | ● | ● | | ● | ● |
| Operating temperature | °C | -5 → +50 | -5 → +50 | | -5 → +50 | -5 → +50 |
| Weight | g | 150 | 193 | | 175 | 175 |

## Accessories

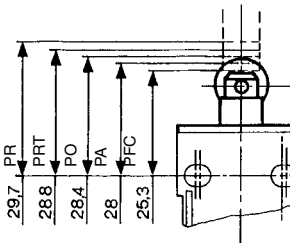
| | | | | | | |
|---|---|---|---|---|---|---|
| Lever with roller | plastic | 79 452 103 | — | ● | ● | ● |
| | bearing | 79 452 104 | — | ● | ● | ● |
| Lever with adjustable roller | plastic | 79 452 123 | — | ● | ● | ● |
| | bearing | 79 452 124 | — | ● | ● | ● |
| Adjustable steel rod lever | | 79 452 133 | — | ● | ● | ● |

### Principle of operation




### Vertical attack

Detectors with roller plunger with unthreaded barrel.



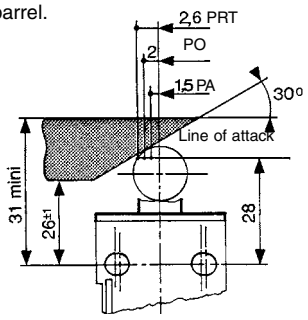

**Actuation positions :**

PA : Operating position (max output kV)
PFC : End of travel position
PO : Mid-position closed (no exhaust, no outlet)
PRT : Release position (max exhaust kV)
PR : Rest position

The detectors 81 922 010 and 81 922 210 can operate to both left and right.

### Horizontal attack

Detectors with roller plunger with unthreaded barrel.

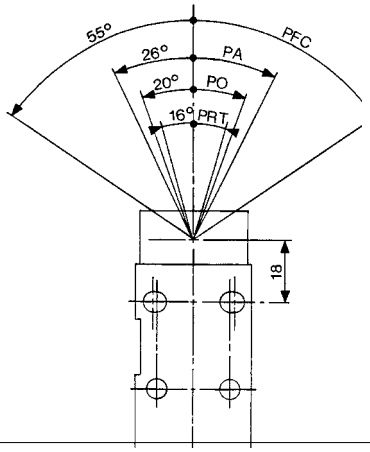


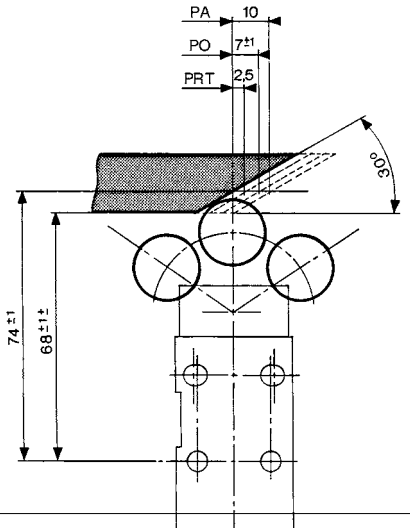

**Material: body zamak**
**Other configuration on demand**

**Rotary actuator**

Detectors with levers

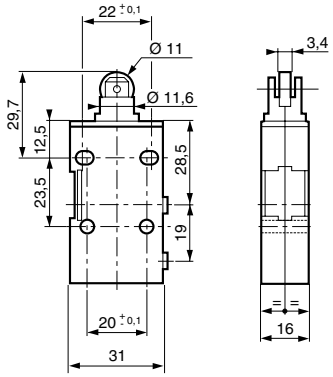
**81 922 - 81 922 0 - 81 922 2**



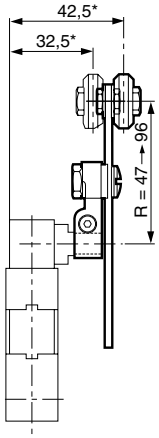




**Dimensions**

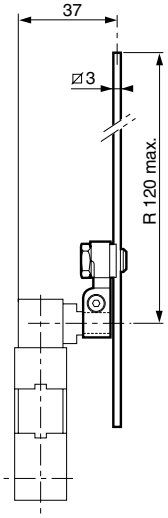
**81 922 401**



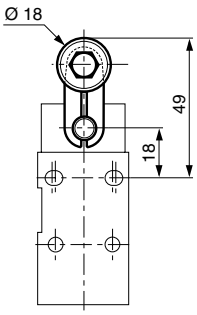

**79 452 123 - 79 452 124**

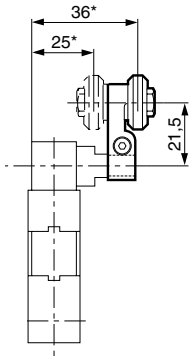



**79 452 133**




**81 922 205 - 81 922 0 - 81 922 2**
**79 452 103 - 79 452 104**

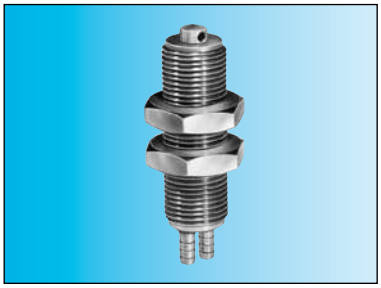


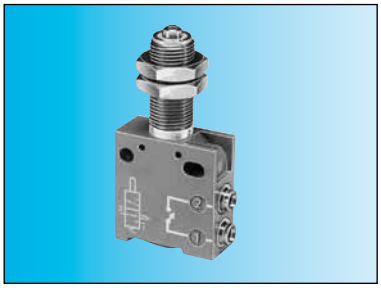




2

# "Adjustable stop" series position detectors

■ 100 % pneumatic
■ All metal

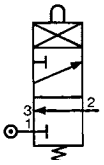


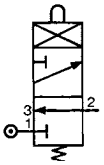


## Part numbers

| | 81 923 001 | 81 921 505 |
|---|---|---|
| Push-in connection for semi-rigid tubing (NFE 49100) | Barb for tube 2.7 x 4 | Push-in connector for tube Ø 4 |

## Symbol

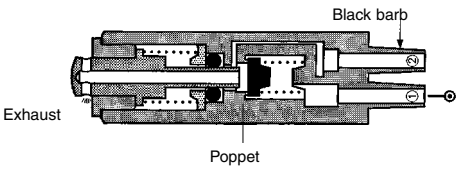


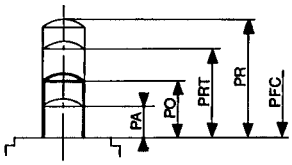




## Characteristics

| | | | |
|---|---|---|---|
| Operating pressure | bar | 0,1 → 8 | 0,1 → 8 |
| Orifice diameter | mm | 2 | 2,7 |
| Flow at 6 bars | Nl/min | 130 | 200 |
| Actuation force at 6 bars | N | 16 | 21 |
| Circuit function: NC | | ● | ● |
| Max. load: without shock | daN | 1000 | 1000 |
| Will stop a 63 mm Ø cylinder : 6 bar supply | | ● | ● |
| Operating temperature | °C | -5 → +50 | -5 → +50 |
| Mechanical life | operations | $\geq 10^7$ | $\geq 10^7$ |
| Weight | g | 27 | 90 |
| Actuation positions | | | |
| PA : Operating position (max output kV) | mm | 0,4 | 0,7 |
| PFC : End of travel position | mm | 0 | 0 |
| PO : Mid-point closed (no exhaust, no outlet) | mm | 0,9 | 1 |
| PRT : Release position (max. exhaust kV) | mm | 1,5 | 1,5 |
| PR : Rest position | mm | 3 | 3 |

### Principle of operation



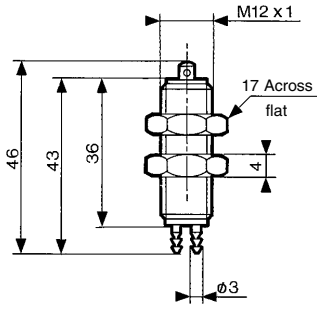

| Versions | PO | PA | PFC | PRT | PR |
|---|---|---|---|---|---|
| With barb | 0.9 | 0.4 | 0 | 1.5 | 3 |
| Ø 4 | 1 | 0.7 | 0 | 1.5 | 3 |

Values in mm

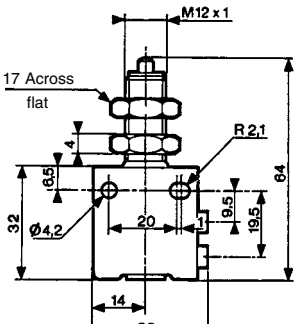
**Actuation positions :**
PA : Operating position (max output kV)
PFC : End of travel position
PO : Mid-position closed (no exhaust, no outlet)
PRT : Release position (max exhaust kV)
PR : Rest position

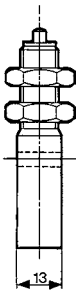
### Dimensions

**81 923 001**



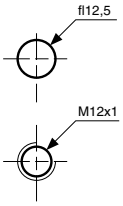

**81 921 505**




### Fixing

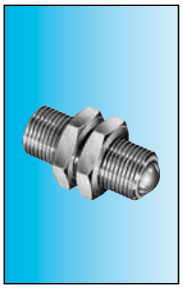
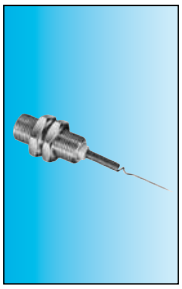
This should be as close as possible to the plunger

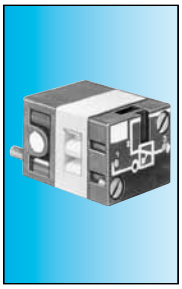



**Material: body zamak**

# Position detectors use with relay

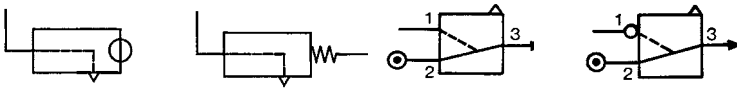
- **100 % pneumatic**
- **All metal**
- **Low force operation <N 1**
- **Very low force Version 30 mN**



## References

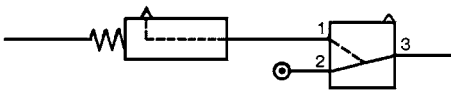
| | 81 512 201 | 81 512 401 | 81 502 435 | 81 505 435 |
|---|---|---|---|---|
| Version | with ball | with wire | Positive | Negative |
| **Symbole** | | | | |




## Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Push-in connection for semi-rigid tubing (NFE 49100) | mm | Ø 4 | Ø 4 | | |
| Life at 6 bars | operations | $10^7$ | $10^7$ | | |
| Actuation force at 6 bars | N | 0,8 | 0,025 | | |
| Fluid used: that delivered by the leak sensor relay.. | | • | • | | |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 |
| Weight | g | 24,5 | 23,5 | 35 | 35 |
| Operating pressure | bar | | | 2 → 8 | 2 → 8 |
| Sensor consumption for relay supply at 6 bar | Nl/ | | | 5 | 5 |
| The distance between relay and sensor must be less than 15 m for a tube Ø 2.7 x 4 mm | | | | • | • |
| Connection - sub-base see pages 54/55 | | | | • | • |
| Mechanical life | operations | | | $\geq 10^7$ | $\geq 10^7$ |

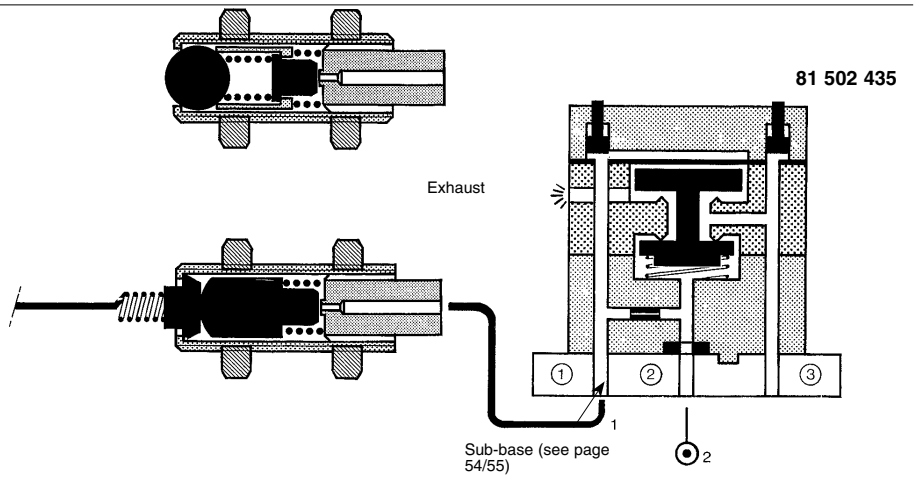
**Connection**




**Principle of operation**

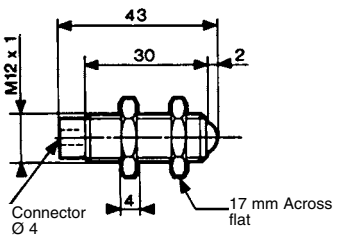
Supplied at industrial pressure, the relay produces a permanent bleed at its input port.

A sensor shutting off this bleed causes the relay to switch.

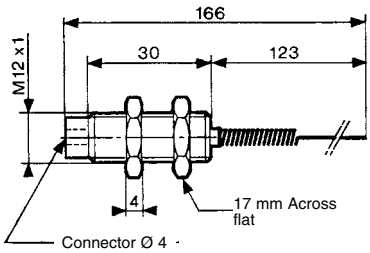



**Dimensions**

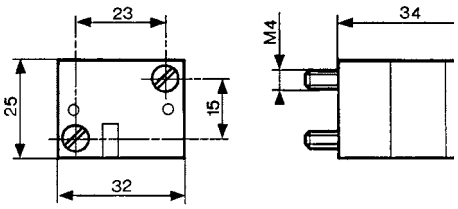
**81 512 201**




**81 512 401**



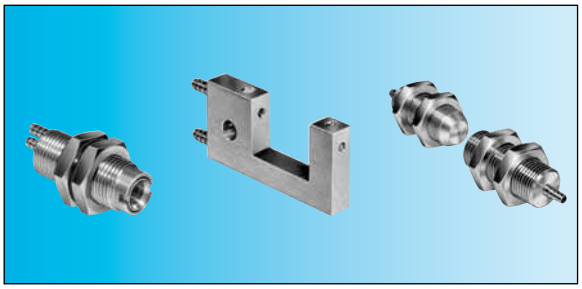

**81 502 435 - 81 505 435**




**Material: brass**

# Position detectors

- **100 % pneumatic**
- **All metal**
- **Gap, proximity, paddle**

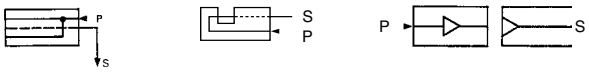




## Part numbers

| | 81 371 401 | 81 372 201 | 81 372 401 | 81 372 901 |
|---|---|---|---|---|
| Detector | de proximité | gap | gap | with palette |

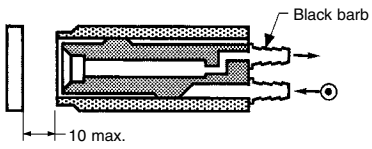
## Symbol

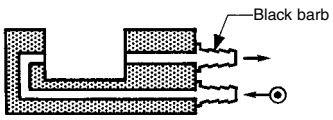


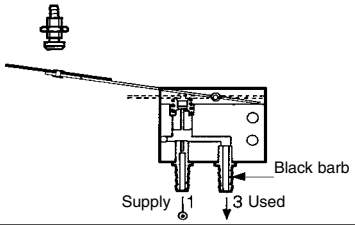

## Characteristics

| | | | | | | |
|---|---|---|---|---|---|---|
| Detection distance | | | mm | 6 → 10 | 18 | 100 | — |
| 18 mm gap sensor | | | | — | — | — | — |
| Supply pressure | | | bar | 0.5 → 2.5 | 0.5 → 2.5 | 0.5 → 2.5 | — |
| Minimum output pressure | | | mbar | 1 | 5 | 5 | — |
| Unlimited life (static component) | | | | ● | ● | ● | — |
| Operating temperature | | | °C | - 20 → +70 | - 20 → +70 | - 20 → +70 | — |
| Consumption at supply pressure of: | | 0.5 b | Nl/h | 800 | 70 | 100 | — |
| | | 2.5 b | Nl/h | 2500 | 2200 | 700 | — |
| Barb connection for semi-rigid tubing (NFE 49100) | | | mm | Ø 2.7 x 4 | Ø 2.7 x 4 | Ø 2.7 x 4 | Ø 2.7 x 4 |
| Operating pressure | nozzle | | | — | — | — | 2 → 8 |
| | sensor | d. detection 200 mm | bar | — | — | — | 2 → 8 |
| | | d. detection 100 mm | bar | — | — | — | 1 → 4 |
| Flow | nozzle at 2 bars | | Nl/h | — | — | — | 320 |
| | sensor at 2 bars | | Nl/h | — | — | — | 320 |
| | at 2 bars | | N | — | — | — | 0.03 |
| | at 6 bars | | N | — | — | — | 0.09 |
| Sensor consumption for relay supply at 6 bars | | | Nl/min | — | — | — | 5 |
| Weight | | | g | 36 | 9 | 63 | 14 |

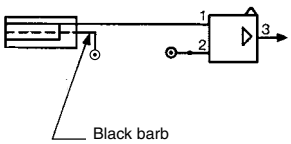
### Principle of operation

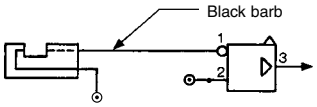


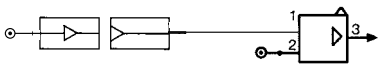




### Connection

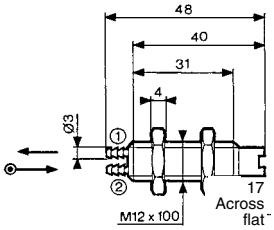


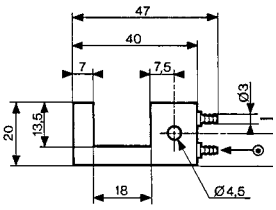




### Encombrements

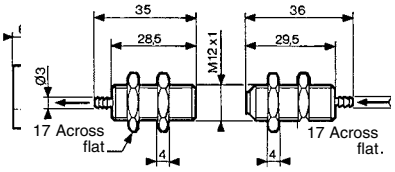
**81 371 401**



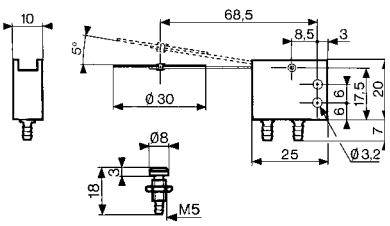

**81 371 201**




**81 372 401**

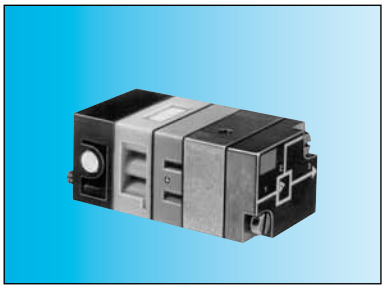


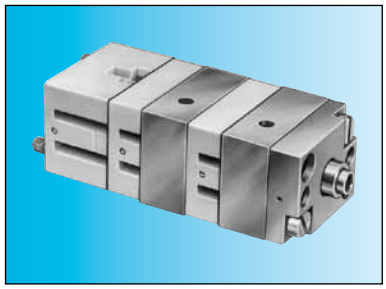

**81 372 901**



# Ampliers for mounting on installation plan

## ■ Gap sensor





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

## Part numbers

| | | | | |
|---|---|---|---|---|
| Simple amplifiers (for 81 372 201/401) | **81 502 230** | **81 505 230** | — | — |
| Sensitive amplifiers (for 81 371 401) | — | — | **81 502 320** | **81 505 320** |
| Version | positive | negative | positive | negative |

## Symbol

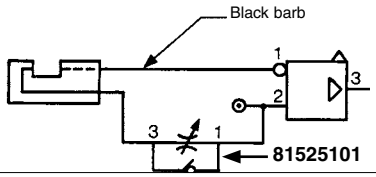


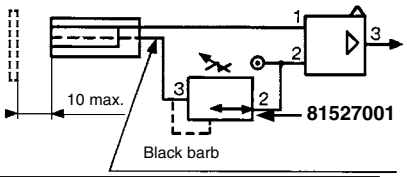
## Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Pressure to make | mb | 10 → 20 | 10 → 20 | 1 → 4 | 1 → 4 |
| Operating pressure (non-lubricated air) | bar | 2 → 8 | 2 → 8 | 2 → 6 | 2 → 6 |
| Orifice diameter | mm | 2.5 | 2.5 | 2.5 | 2.5 |
| Average consumption at 4 bars | Nl/min | 5 | 5 | 5 | 5 |
| Permissible overload for 1 hour | mb | 800 | 800 | 800 | 800 |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 | -5 → +50 |
| Mechanical life | operations | 3 x $10^6$ | 3 x $10^6$ | 3 x $10^6$ | 3 x $10^6$ |
| Weight | g | 150 | 150 | 185 | 185 |

### Connections

Used for gaps up to 25 mm.
The supply to the sensor should be made via a pressure regulator or one-way flow restrictor (see page 52
Connection - sub-base

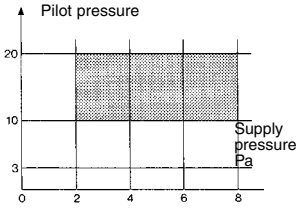



### Principle of operation

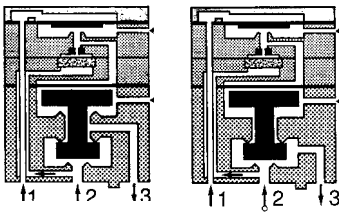
**Simple amplifiers**

An output at normal industrial pressure is delivered on a low pressure input.
NB: Hysteresis is 20% of the pilot pressure.




**81 502 230**
Positive output

**81 505 230**
Negative output

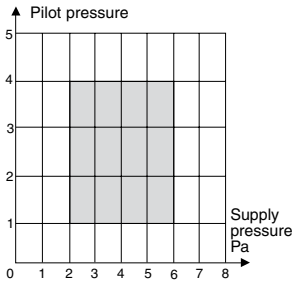


1- pilot
2- supply
3- output

**Sensitive amplifiers**

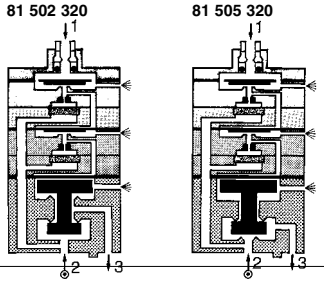
An output at normal industrial pressure is delivered on a very low pressure input.

Note: The specifications are given for a supply pressure of 6 bars, and for detection at the mid-point of the gap.



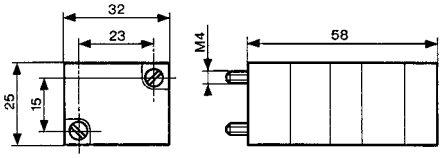

**81 502 320**

**81 505 320**

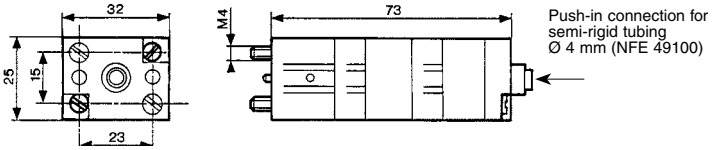


### Dimensions

**81 502 238 - 81 505 231**




**81 502 322 - 81 505 321**



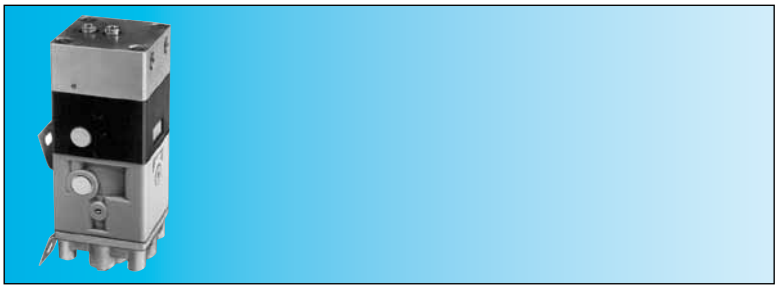

### Other information

With gap sensors, use an amplifier with negative output if you require a signal on interruption of the jet.

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

# Amplifier with intégral régulator, positive output

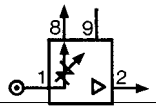
- **Setting Flow**
- **Fixing rail 35mm wide**



## Part numbers

| | |
|---|---|
| Amplifiers with integral regulator | **81 510 001** |
| Version | Positive output |

## Symbol



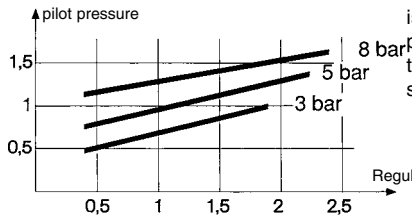

## Characteristics

| | | | | |
|---|---|---|---|---|
| Pressure to make | mb | 0.5 → 1.5 | — | — |
| Reduced pressure supplied at port 8 | bar | 0.5 → 2.5 | — | — |
| Flow through port 8 | Nm³/h | 0.1 → 2.5 | — | — |
| Consumption of amplifier only | Nl/h | 100 → 200 | — | — |
| Permissible overload for 1 hour | mb | 300 | — | — |
| Operating temperature | °C | -5 → +50 | -5 → +50 | -5 → +50 |
| Mechanical life | operations | 3 x $10^6$ | 3 x $10^6$ | 3 x $10^6$ |
| Weight | g | 380 | — | — |
| Detectors (see page 28) | | Proximity Ø 12 | Gap Ø 18 | Proximity Ø 12 |
| Nominal range | mm | 81 371 401 | 81 372 201 | 81 372 401 |
| Min. total consumption for detection (0.5 b regulated pressure) Max. total consumption for short response time (2.5 b regulated pressure) | Nl/h | 8<br>880<br>2750 | 18<br>140<br>400 | 100<br>—<br>920 |
| Min. detectable dimensions nominal sensing distance | mm | Ø 3 | Ø 2 - Ø 1.5 | Ø 7 - Ø 6.5 |
| Max. frequency of use 2 | mm | 2 | — | — |
| Force exerted by the jet on the parts to be detected | Hz<br>N | 5<br>0.02 → 0.7 | 5<br>0.01 → 0.03 | 5<br>0.1 |

### Connection

To use with detectors page 32

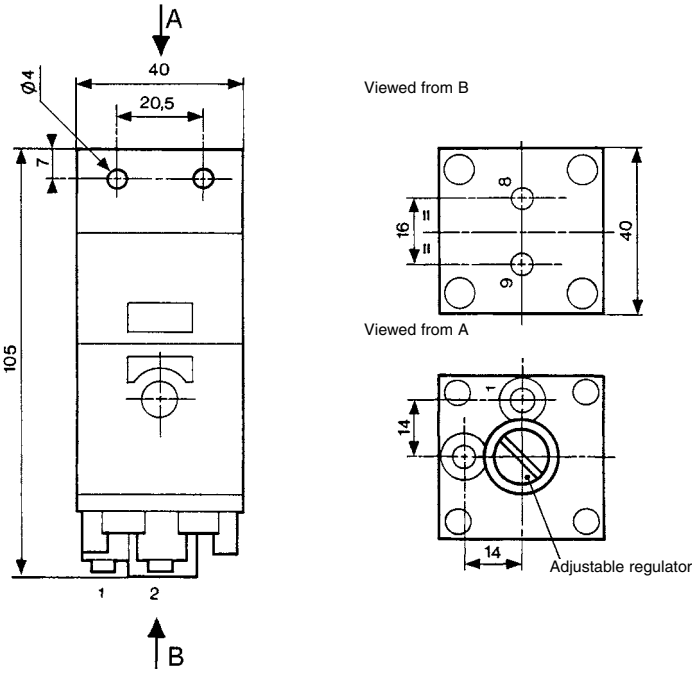
### Principle of operation




This amplifier is suitable for providing a supply to associated sensors.

### Dimensions

Push-in connection for semi-rigid tubing Ø 4 mm (NFE 49100)



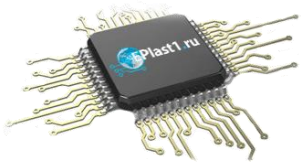
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.