

# Pressure switches

- Conform to the Low Voltage Directive
- Can be used without enclosure according to IEC 664-1 pollution group III



1

## Part numbers

Pressure and vacuum switches	81 513 552	81 513 502	81 513 501	81 513 522
Mounting	DIN rail	DIN rail	DIN rail	DIN rail
	EN 50022	EN 50022	EN 50022	EN 50022
Actuators	Pressure	Pressure	Low pressure	Vacuum
Manual override	with	without	without	without

## Symbol



## Characteristics

Pneumatic connection	Push-in connection for semi-rigid tubing (NFE 49100)	mm	Ø 4 ext.	Ø 4 ext.	Ø 4 ext.	Ø 4 ext.
	Tapped BSP via connector	IEC 529	—	—	—	—
Protection			IP 20	IP 20	IP 20	IP 20
Permissible fluid:	air, inert gases and liquids					
Adjustment of switching pressure (* adjusted to 0.3)	bar		2 → 8	2 → 8	0.3 → 1.2 *	-0.3 → -0.8
Hysteresis	at 1 bar	bar	0.5	0.5	—	—
	at 2 bars	bar	0.6	0.6	—	—
	at 4 bars	bar	0.8	0.8	—	—
	at 6 bars	bar	1	1	—	—
	max. 200 mb		—	—	●	—
	max. 250 mb		—	—	—	●
Pressure to break			—	—	—	—
Mechanical life (operations)			10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>
Contact rating (V resistive)			5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V
Wire cross-section	mm <sup>2</sup>		0.75	0.75	0.75	0.75
Operating temperature	°C		-10+70	-10+70	-10+70	-10+70
Weight	g		48	46	46	46
Standard electrical contact			V4 83 170 4   W2	V4 83 170 4   W2	V4 83 170 4   W2	V4 83 170 4   W2
UL and cUL approval			MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)

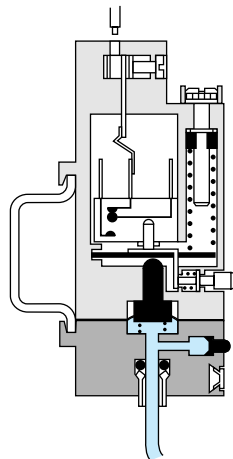
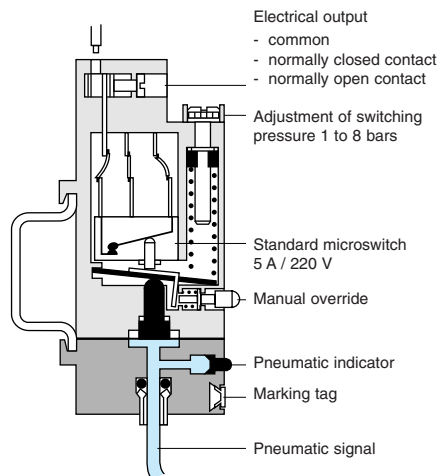
## Operation

Pressure operated

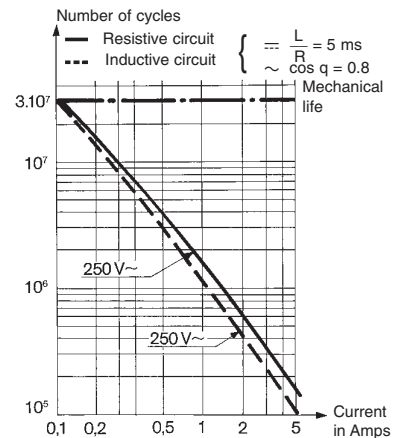
Vacuum operated

## Electrical life

(Crouzet microswitch "V4" ref 83 170 4-1-W2)



For continuous vacuum applications, please consult us.

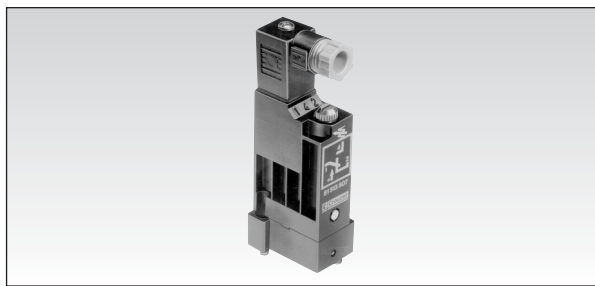


## Other information

- On request :
- Microswitch V4 ref. 83 170 0 | W2 high current
  - Microswitch V4 ref. 83 170 9 | W2 low current

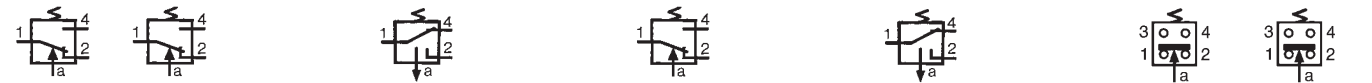
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**1**

<b>81 513 516</b> Base mounted page 5/44 Pressure without	<b>81 513 510</b> Base mounted page 5/45 Pressure with	<b>81 513 527</b> Base mounted page 5/44 Vacuum without	<b>81 513 533</b> 2 screws M4 Pressure without	<b>81 513 523</b> 2 screws M4 Vacuum without	<b>81 509 080</b> Base mounted page 5/44 Pressure without	<b>81 509 085</b> Base mounted page 5/45 Pressure with
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Ø 4 ext.	Ø 4 ext.	Ø 4 ext.	—	—	—	—
IP 54	IP 54	IP 54	1/8 BSP IP 54	1/8 BSP IP 54	Via sub-base IP 54	Via sub-base IP 54
2 → 8	2 → 8	-0.3 → -0.9	2 → 8	-0.3 → -0.8	1.4 ± 0.5	1.4 ± 0.5
0.5	0.5	—	0.5	—	—	—
0.6	0.6	—	0.6	—	—	—
0.8	0.8	—	0.8	—	—	—
1	1	—	1	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	0.6 ± 0.2	0.6 ± 0.2
5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	10 <sup>6</sup>	10 <sup>6</sup>
0.75	0.75	0.75	0.75	0.75	5A - 220-230 V	5A - 220-230 V
-10+70	-10+70	-10+70	-10+70	-10+70	1.5	1.5
56	58	56	65	65	-10+70	-10+70
V4 83 170 4   W2	V4 83 170 4   W2	V4 83 170 4   W2	V4 83 170 4   W2	V4 83 170 4   W2	80	80
MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)	83 133 004	83 133 004

**Electrical connections**

81 513 501 - 81 513 502  
81 513 522 - 81 513 552

**Dimensions**

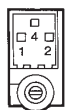
81 513 552 - 81 513 502  
81 513 501 - 81 513 522

**Pressure switch with connector**

81 513 516 - 81 513 510  
81 513 527

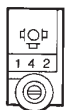
**81 516 082**

81 513 533  
81 513 523

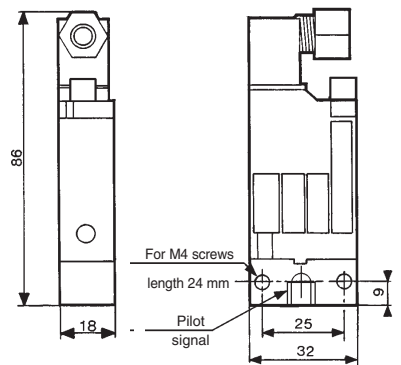
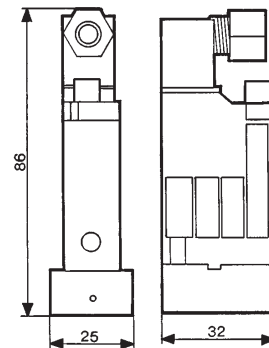
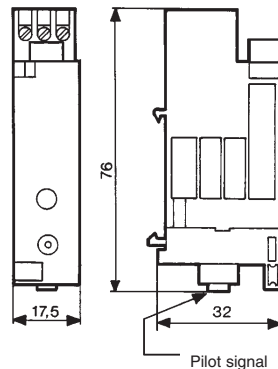


1 - Common  
4 - NO contact  
2 - NC contact

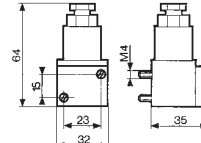
81 513 510 - 81 513 521  
81 513 516 - 81 513 527



81 513 533  
81 513 523 - 81 513 533



**81 509 080 - 81 509 085**



**To order, specify :**

Standard products

**1** Part number

Standard products,  
non stocked

Example : Pressure and vacuum switches 81 513 552

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