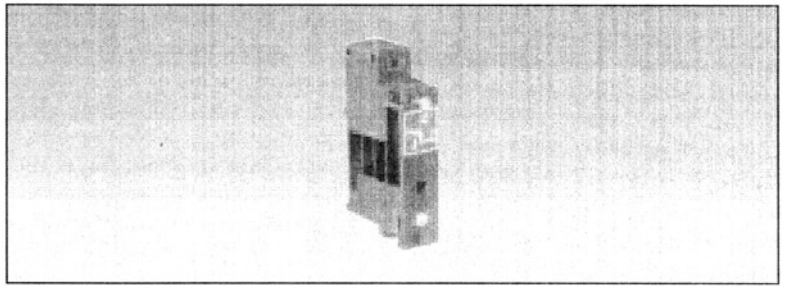


# Pressure switches

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



## 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)

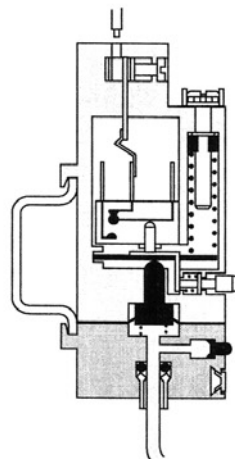
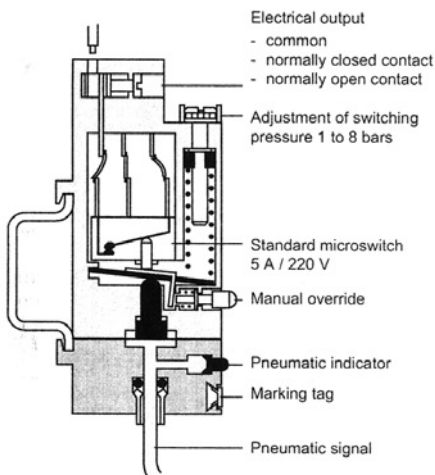
## Operation

Pressure operated

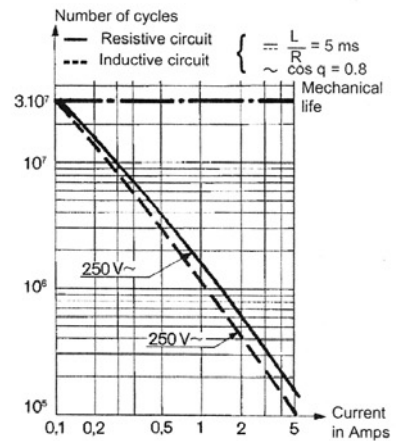
Vacuum operated

## Electrical life

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

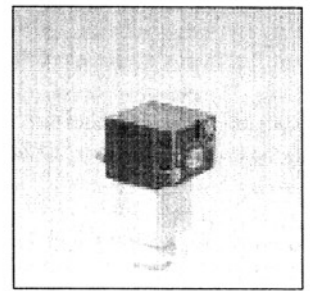
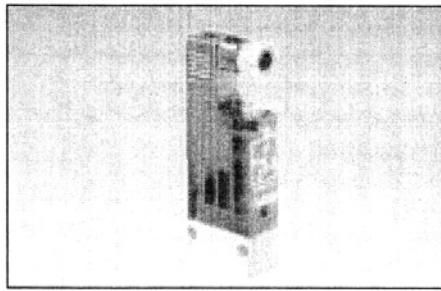
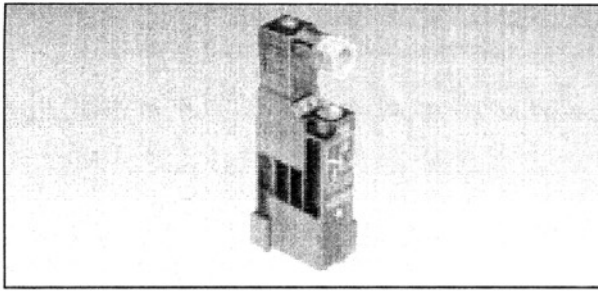


For continuous vacuum applications, please consult us.

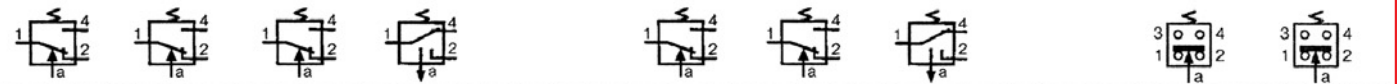


## Other information

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



<b>81 513 516</b>	<b>81 513 510</b>	<b>81 513 521</b>	<b>81 513 527</b>	<b>81 513 533</b>	<b>81 513 513</b>	<b>81 513 523</b>	<b>81 509 080</b>	<b>81 509 085</b>
Base mounted page 4/14	Base mounted page 4/14	Base mounted page 4/14	Base mounted page 4/14	2 screws M4	2 screws M4	2 screws M4	Base mounted page 4/14	Base mounted page 4/14
Pressure without	Pressure with	Low pressure without	Vacuum without	Pressure without	Low pressure without	Vacuum without	Pressure without	Pressure with



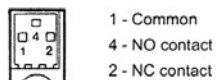
Ø 4 ext.	Ø 4 ext.	Ø 4 ext.	Ø 4 ext.	—	—	—	—	—
IP 54	IP 54	IP 54	IP 54	1/8 BSP IP 54	1/8 BSP IP 54	1/8 BSP IP 54	Via sub-base IP 54	Via sub-base IP 54
2 → 8	2 → 8	0.2 → 1.2 *	-0.3 → -0.9	2 → 8	0.3 → 1.2 *	-0.3 → -0.8	1.4 ± 0.5	1.4 ± 0.5
0.5	0.5	—	—	0.5	—	—	—	—
0.6	0.6	—	—	0.6	—	—	—	—
0.8	0.8	—	—	0.8	—	—	—	—
1	1	—	—	1	—	—	—	—
—	—	•	•	—	•	•	—	—
—	—	—	—	—	—	—	0.6 ± 0.2	0.6 ± 0.2
10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>
5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V
0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	1.5
-10+70	-10+70	-10+70	-10+70	-10+70	-10+70	-10+70	-10+70	-10+70
56	58	56	56	65	65	65	80	80
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	V4 83 170 4   W2	V4 83 170 4   W2	83 133 004	83 133 004
MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)		

**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 - 81 513 521**

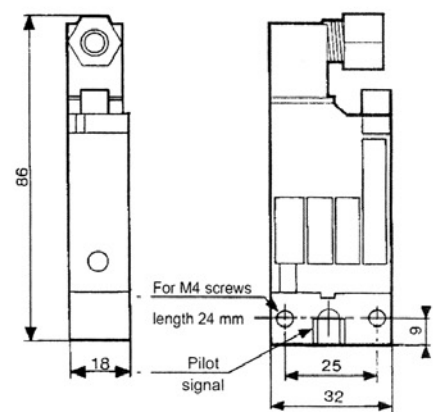
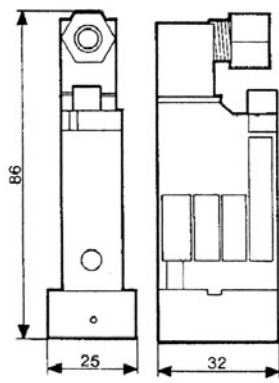
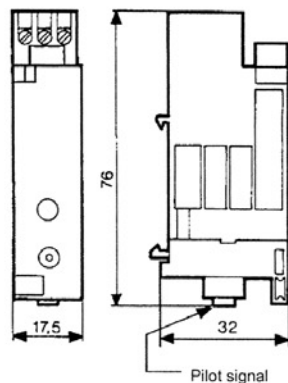
**81 516 082**  
**81 513 533 - 81 513 513**  
**81 513 523**



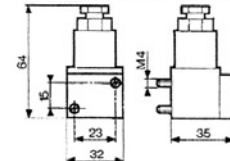
**81 513 510 - 81 513 521**  
**81 513 516 - 81 513 527**



**81 513 533 - 81 513 513**  
**81 513 523 - 81 513 533**



**81 509 080 - 81 509 085**



**To order, specify :**

Standard products



Part number  
 Example : Pressure and vacuum switches 81 513 552

Standard products,  
 non stocked