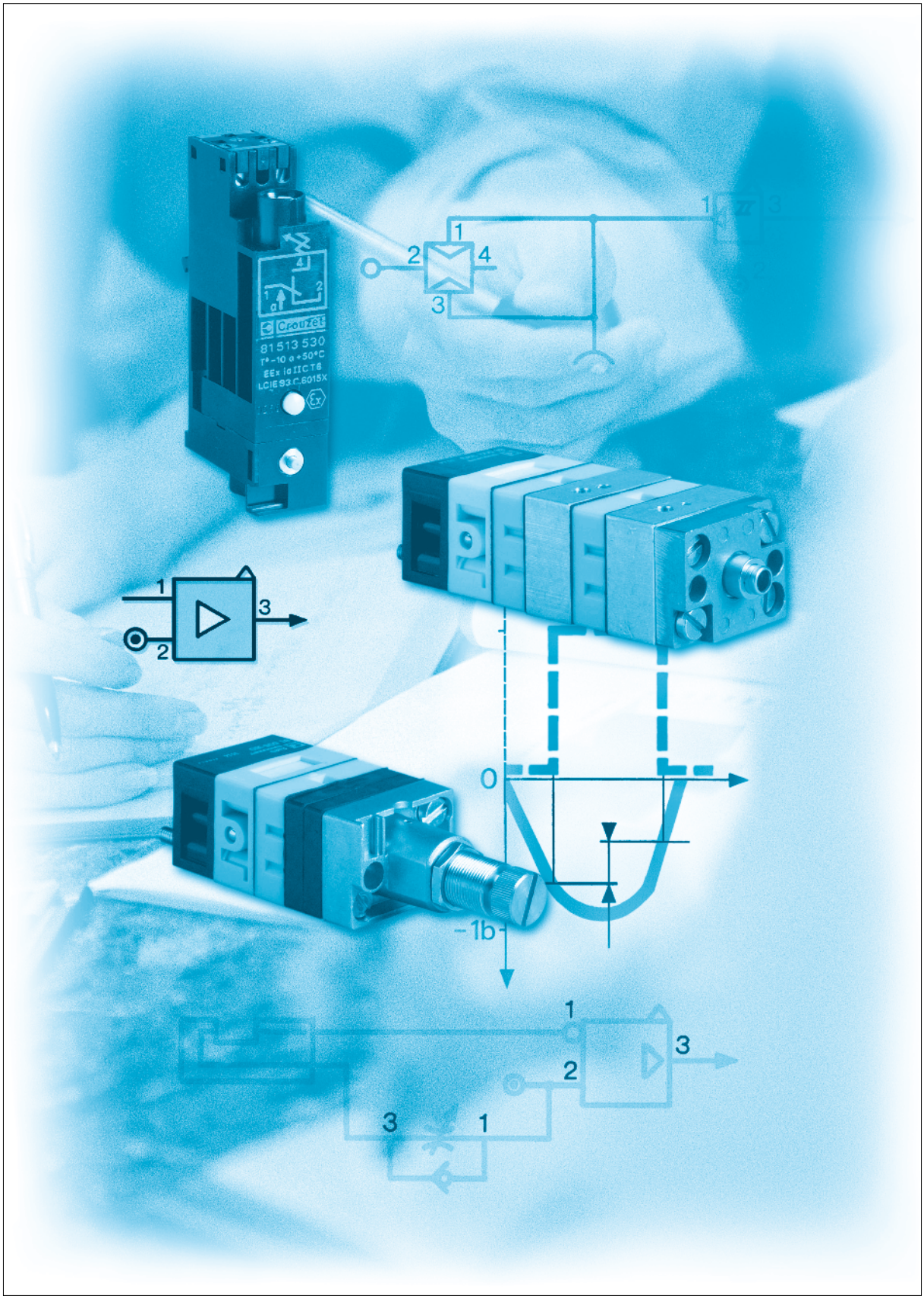
Pressure switches - Vacuum



Pressure switches - vacuum (electrical output)

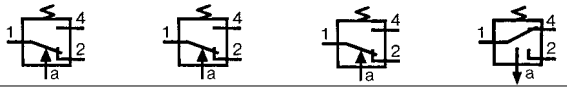
- **Conform to the Low Voltage Directive**
- **Can be used without enclosure according to IEC 664-1 pollution group III**



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
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		—	—	—	—
Protection		IEC 529	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)			10^6	10^6	10^6	10^6
Contact rating (V resistive)			5A - 220-230 V	5A - 220-230 V	5A - 220-230 V	5A - 220-230 V
Wire cross-section		mm^2	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 I W2	V4 83 170 4 I W2	V4 83 170 4 I W2	V4 83 170 4 I W2
UL and cUL approval			MH15213 (R)	MH15213 (R)	MH15213 (R)	MH15213 (R)

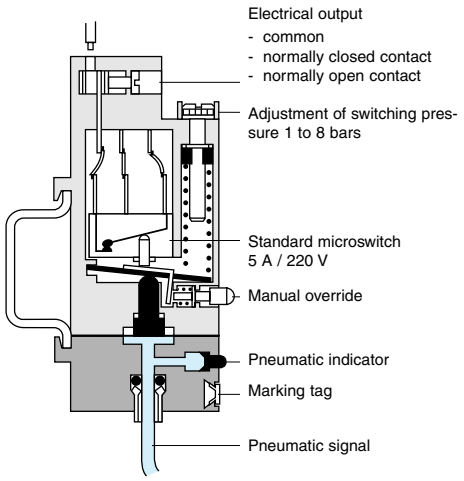
Operation

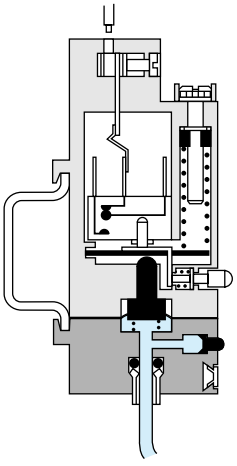
Pressure operated

Vacuum operated

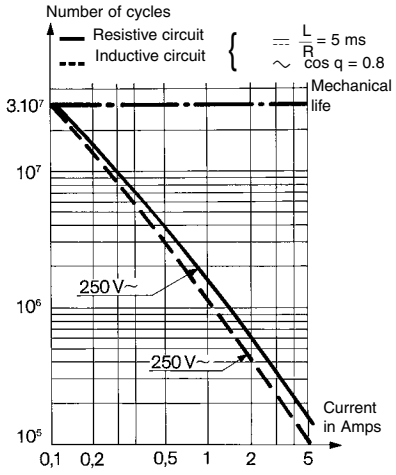
Electrical life

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



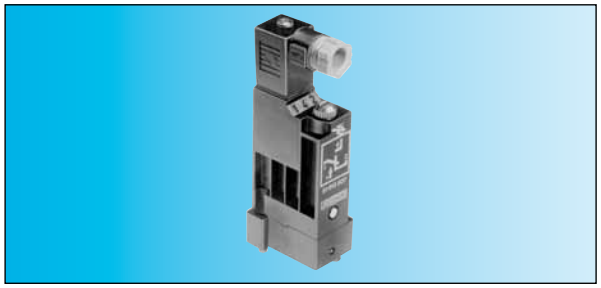


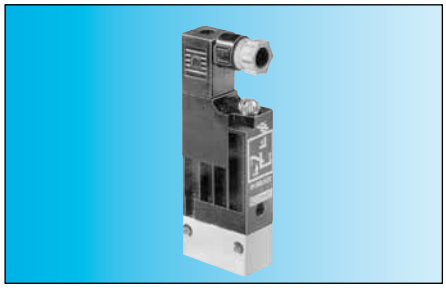
For continuous vacuum applications, please consult us.

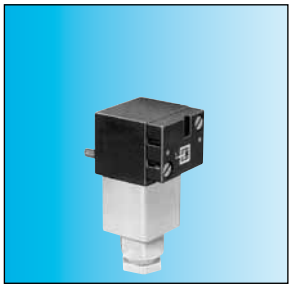


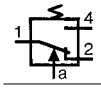
Other information

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



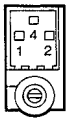




81 513 516	81 513 510	81 513 527			81 513 533	81 513 523			81 509 080	81 509 085
Base mounted page 4/14	Base mounted page 4/14	Base mounted page 4/14			2 screws M4	2 screws M4			Base mounted page 4/14	Base mounted page 4/14
Pressure without	Pressure with	Vacuum without			Pressure without	Vacuum without			Pressure without	Pressure with
										
Ø 4 ext.	Ø 4 ext.	Ø 4 ext.			—	— —			—	—
—	—	—			1/8 BSP	1/8 BSP			Via sub-base	Via sub-base
IP 54	IP 54	IP 54			IP 54	IP 54			IP 54	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	—			—	—
—	—	—			—	—			—	—
—	—	●			—	●			—	—
—	—	—			—	—			0.6 ± 0.2	0.6 ± 0.2
10^6	10^6	10^6			10^6	10^6			10^6	10^6
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			1.5	1.5
-10 → +70	-10 → +70	-10 → +70			-10 → +70	-10 → +70			-10 → +70	-10 → +70
56	58	56			65	65			80	80
V4 83 170 4 I W2	V4 83 170 4 I W2	V4 83 170 4 I W2			V4 83 170 4 I W2	V4 83 170 4 I W2			83 133 004	83 133 004
MH15213 (R)	MH15213 (R)	MH15213 (R)			MH15213 (R)	MH15213 (R)				

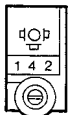
Electrical connections

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



1 - Common
4 - NO contact
2 - NC contact

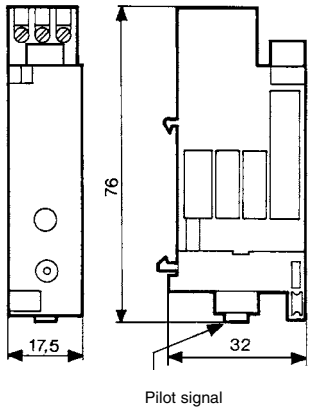
81 513 510
81 513 516 - 81 513 527



81 513 533
81 513 523 - 81 513 533

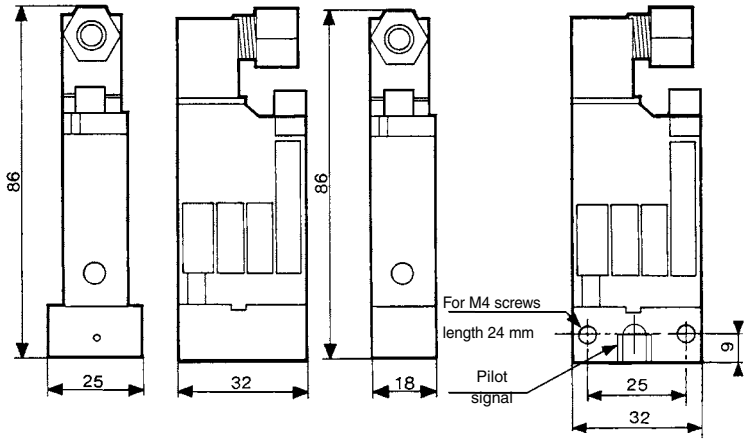
Dimensions

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

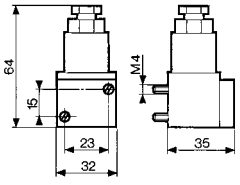


Pressure switch with connector
81 513 516 - 81 513 510
81 513 527

81 516 082
81 513 533
81 513 523



81 509 080 - 81 509 085

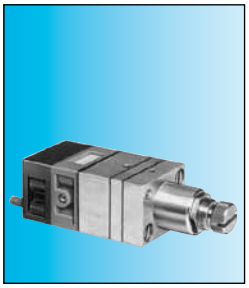


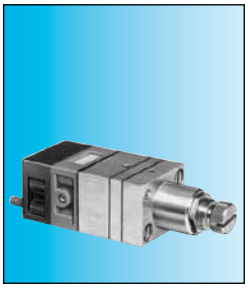
3

Adjustable pressure switches (manostats) (pneumatic output)

■ **100 % pneumatic**

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

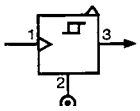


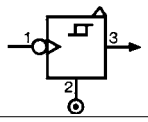


Part numbers (and adjustment ranges)

Adjustment range	50 → 500 mb	**81 505 140**	**81 502 140**
	0.1 → 2.5 b	**81 505 150**	**81 502 150**
	2 → 8 b	**81 505 160**	**81 502 160**
Version		Positive output	Negative output
Accuracy	50 → 500 mb	10 %	10 %
	0.1 → 2.5 b	4 %	4 %
	2 → 8 b	4 %	4 %

Symbol



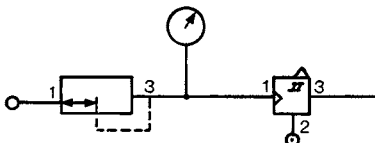


Characteristics

Orifice diameter	mm	2.5	2.5
Flow at 4 bars	Nl/min	170	170
Hysteresis	50 → 500 mb	60 mb	60 mb
	0.1 → 2.5 b	100 mb	100 mb
	2 → 8 b	320 mb	320 mb
Connection - sub-base pages 54/55		●	●
Operating temperature	°C	-5 → +50	-5 → +50
Mechanical life	operations	3 x 10^6	3 x 10^6
Weight	g	160	160

Connections

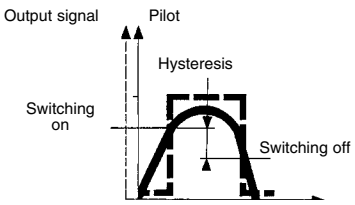
Example of pressure threshold adjustment (mini-regulator - manostat)

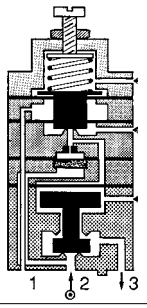


Principle of operation

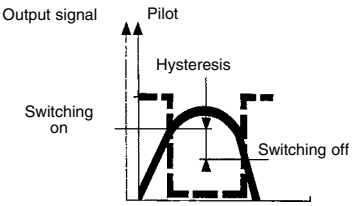
The manostats provide an on or off output signal when the input signal reaches a predetermined pressure threshold.

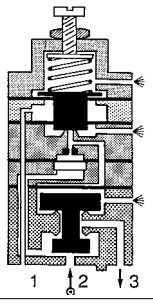
Positive output





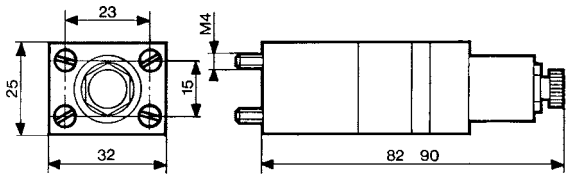
Negative output





Dimensions

81 502 140 - 81 502 150 - 81 502 160
81 505 140 - 81 505 150 - 81 505 160

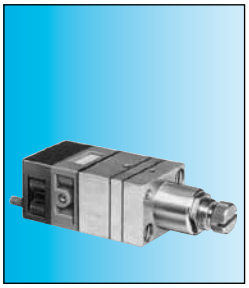
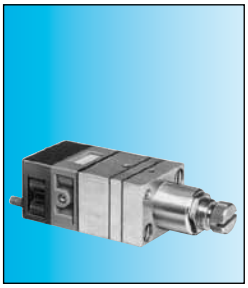
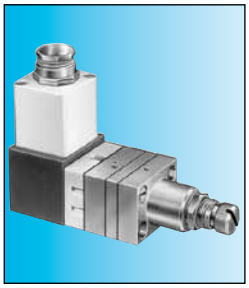


Other information Pressure switches with electrical output on request.

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

Adjustable vacuum switches (vacuostat)

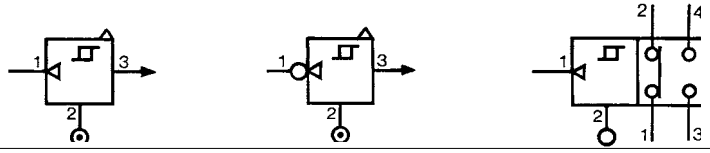
■ 100 % pneumatic
■ For vacuum -0,1 → -0,9 Bar

Part numbers

	81 505 110	81 502 110	81 508 110
	Positive output	Negative output	Electrical output

Symbol

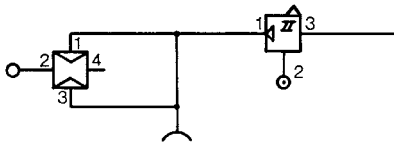


Characteristics

Adjustment range	b	- 0.1 → -0.9	- 0.1 → -0.9	- 0.1 → -0.9
Flow at 6 bars	Nl/min	170	170	170
Hysteresis	mb	80	80	80
Connection - sub-base pages 54/55		●	●	●
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	160	160	180

Connections

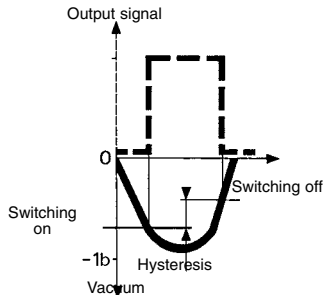
Example of use:
Vacuum handling (vacuum generator, vacuum pad, vacuostats).

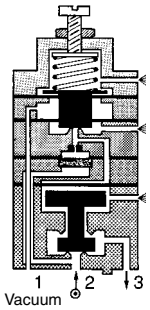


Principle of operation

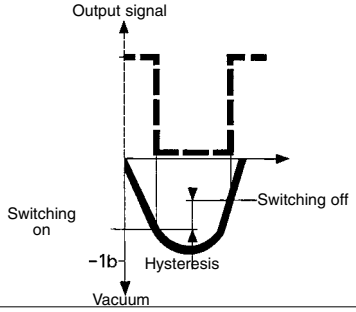
Vacuostats provide an on or off output signal when the input signal reaches a predetermined pressure threshold.

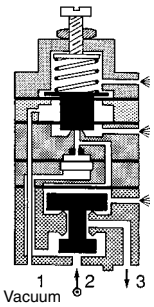
Positive output





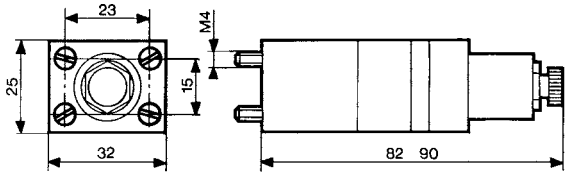
Negative output



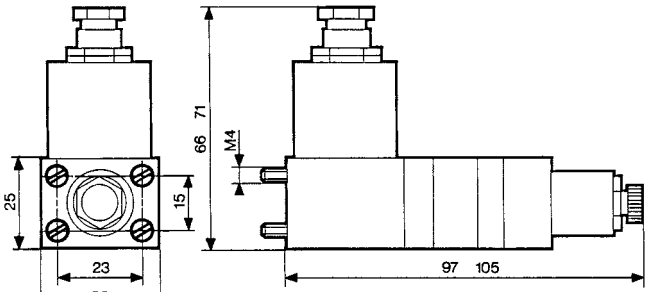


Dimensions

81 502 110 - 81 505 110



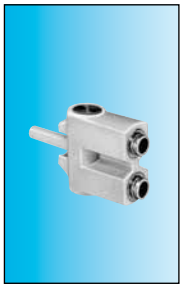
81 508 110



Vacuum handling components

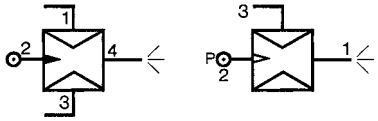
- **Sur le principe du Venturi**
- **Facilement raccordable**

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


Part numbers

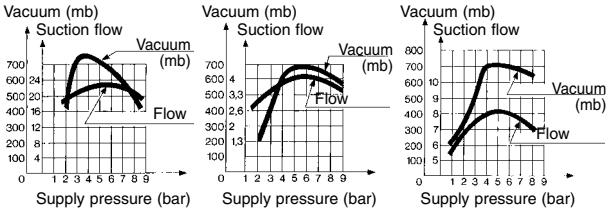
Vacuum generators	**81 535 301**	**81 545 001**	**81 545 005**
	Sub-base mounting	Plug-in	Plug-in



Characteristics

Push-in connectors for semi-rigid tubing (NFE 49100)	Male/Female/Female (MFF)	—	Ø 4 mm	—
	Female/Female/ Female (FFF)	—	—	Ø 6 mm
Operating pressure	bar	2 → 8	2 → 8	2 → 8
Vacuum pad material		—	—	—
Weight	g	80	13	25

Detection of the pressure decrease can be achieved by the use of manostats (see pages 38/39)

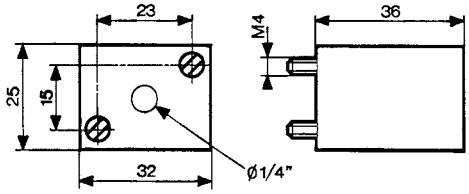


3

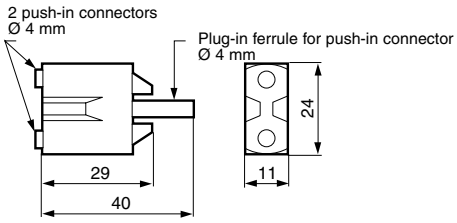
Dimensions

81 535 301

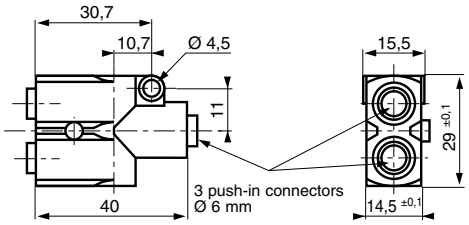
Sub-base mounting 81 531… and 81 532…



81 545 001



81 545 005



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

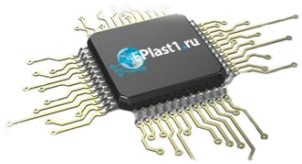
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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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