



**BOURDON**  
The Original by Baumer

## Main Features

- Excellent repeatability
- Fix deadband for control and alarm
- Resistant to accidental overpressure
- Intrinsic safety Hazardous area 0, 1, 2

## Applications

- Pneumatic appliances
- Power generation safety equipment
- Water treatment
- Valve and compressor control



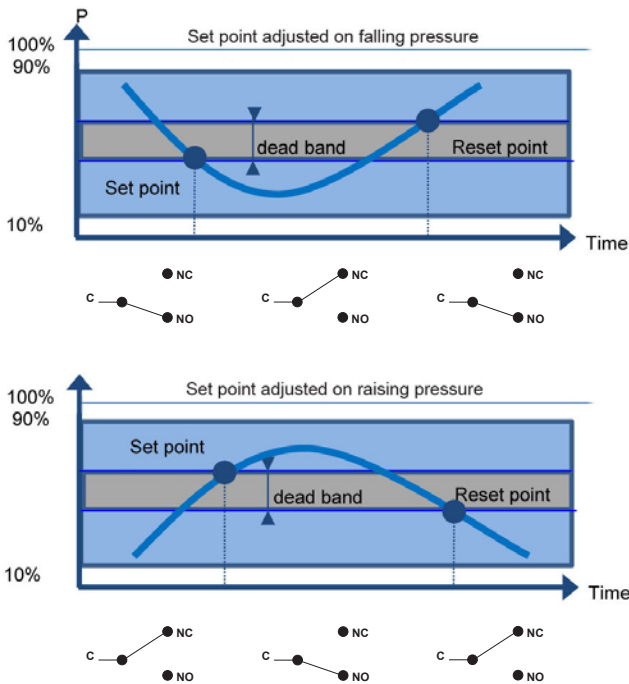
## Technical Data

Pressure range	0 ... 1 bar to 0 ... 100 bar	Electrical connection	Via internal terminal block with cable gland for Ø 5.5 to 8.5 mm
Temperature	Process : -40 ... +150°C Ambient : -30 ... +70°C (T5) -30 ... +55°C (T6) Storage : -40 ... +70°C	Electrical function	See ordering code details on page 4
Repeatability	± 1% F.S. @ constant pressure cycle	Adjustment	Internal adjustment possible for set point
CE conformity	Low Voltage Directive LVD 2006/95/EC Pressure Equipment Directive PED 97/23/EC ATEX Directive 94/9/EC	ATEX	<u>Type examination certificate</u> LCIE 03 ATEX 6160X EN 60079-0 : 2009 EN 60079-11 : 2012
Protection rating	IP 66 (EN 60529)	<u>Marking</u>	CE 0081 Ex I M 1 Ex ia I Ma Ex II 1 G Ex ia IIC T6 or T5 Ga
Process Connection	Stainless steel 1.4404 (316L)	<u>Electrical data</u>	U <sub>max</sub> = 30 Vdc I <sub>max</sub> = 66 mA P <sub>max</sub> = 0.5 W C <sub>i</sub> = Negligible ; L <sub>i</sub> = Negligible
Diaphragm	Stainless steel 1.4404 (316L)		
Scale	Internal graduated scale		
Weight	0.960 kg		
Body	Zamak black painting		
Housing	Plastic PA6, blue		
Mounting	Wall mounting 2 x M5 screws		
Ground connection	Via internal terminal block		

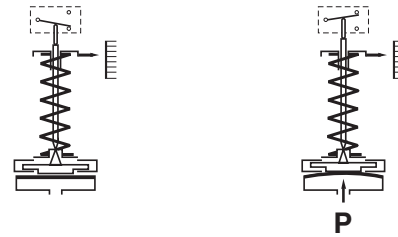
## Options

Customer specific set point adjustment	Code SETP
Oxygen application	Code 0765
Mounting on 2" pipe	Code 0407
Stainless steel tag plate and wire	Code 9941
Lead seal of the housing	Code 8990

## Principle



A flexible sensing element actuates a microswitch by means of a piston. The set point is adjusted by means of a compressible spring installed in opposition.



Set point and reset point must be between 10% and 90% of the selected scale.

### Standard factory adjustment

Setpoint at 50% of the scale on falling pressure

### Customer specific factory adjustment (option SETP)

The following specifications have to be given with the order:

- Setpoint value
- Adjustment on falling or raising pressure

## Adjustable ranges

Scale	P. Max permanent	P. Max accidental	Code	Micro-switch dead band <sup>1)</sup>	
				Fixed dead band	
				M	M
bar	bar	bar		10%	90%
				mbar	mbar
0 ... 1	10	50	41	120	330
0 ... 1.6			42	150	390
0 ... 2.5			43	180	480
0 ... 4			44	210	540
0 ... 6			45	240	630
0 ... 10			46	300	750
0 ... 4	40	100	51	600	1320
0 ... 6			52	750	1620
0 ... 10			53	840	2010
0 ... 16			54	960	2370
0 ... 25			55	1050	2730
0 ... 40			56	1140	3150
0 ... 10	100	200	61	1500	3600
0 ... 16			62	2100	3960
0 ... 25			63	2700	5550
0 ... 40			64	3300	7350
0 ... 60			65	3900	9600
0 ... 100			66	4500	13200

<sup>1)</sup> The value of the dead band is depending on the value of the set point.

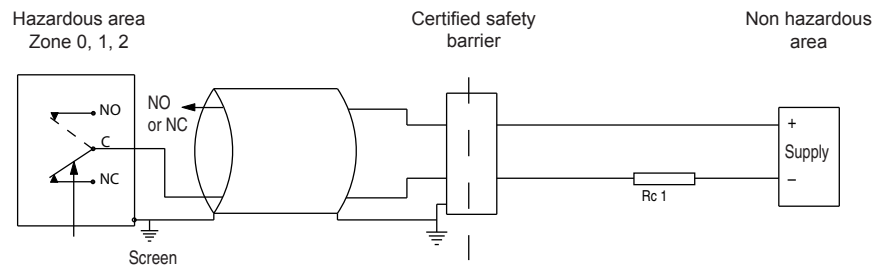
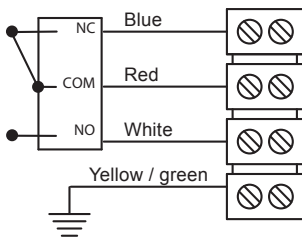
This table contains the dead band values for set point adjustment at 10% and 90% of the selected scale. For other set points the dead band value can be calculated by linear interpolation between the values at 10% and 90%.

**Micro switches characteristics**

Switch code	M
Type	<b>Fixed dead band</b>
	<b>Gold contact</b>
6 Vdc	10 ... 50 mA
12 Vdc	10 ... 40 mA
24 Vdc	10 ... 20 mA
30 Vdc	10 ... 16 mA
48 Vdc	N/A
110 Vdc	N/A
220 Vdc	N/A
115 Vac	N/A
250 Vac	N/A
Dielectric rigidity between contacts and ground	2000 V

**Electrical connections**

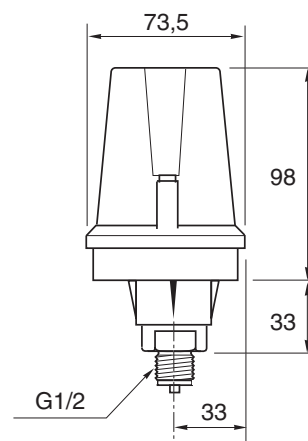
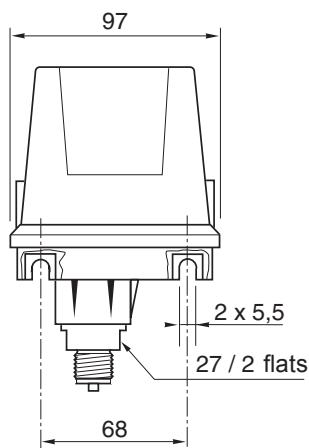
**Micro switch Terminal block**



For max. ambient temperature according to temperature classes T5 and T6 refer to technical data on page 1.  
The installation must be made in an intrinsically safe circuit whose certified electrical safety parameters do not exceed any of the values  $U_{max}$ ,  $I_{max}$  and  $P_{max}$  given in the electrical data on page 1.

All necessary measures must be taken by the user, to avoid the calorific transfer from the fluid to the apparatus head increasing the head's temperature to such that it reaches the self-ignition temperature of the gas in which it is used.

**Dimensions (mm)**



## Ordering details RP2Y

RP2	-		.		xx	/
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**Model**

Compact pressure switch	RP2	-		.					
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**Approvals**

ATEX intrinsic safety					Y				
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**Pressure switches**

1 SPDT gold contact change over switch						M			
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**Process connection**

G1/2 male (standard)									3
1/2 NPT male									6
1/4 NPT female									8
1/2 NPT female									N

Pressure range (bar)	Over pressure max. (bar)	
0 ... 1	10	41
0 ... 1.6	10	42
0 ... 2.5	10	43
0 ... 4	10	44
0 ... 6	10	45
0 ... 10	10	46
0 ... 4	40	51
0 ... 6	40	52
0 ... 10	40	53
0 ... 16	40	54
0 ... 25	40	55
0 ... 40	40	56
0 ... 10	100	61
0 ... 16	100	62
0 ... 25	100	63
0 ... 40	100	64
0 ... 60	100	65
0 ... 100	100	66

Options to be added behind the / (see example below)

## Ordering example with options

RP2	-	Y	M	.	3	53	/	0765	-	0407	-	9941
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