



Main Features

- Excellent repeatability
- Dead band adjustment for regulation
- Fix dead band for control and alarm
- Resistant to accidental overpressure
- Light weight

Applications

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

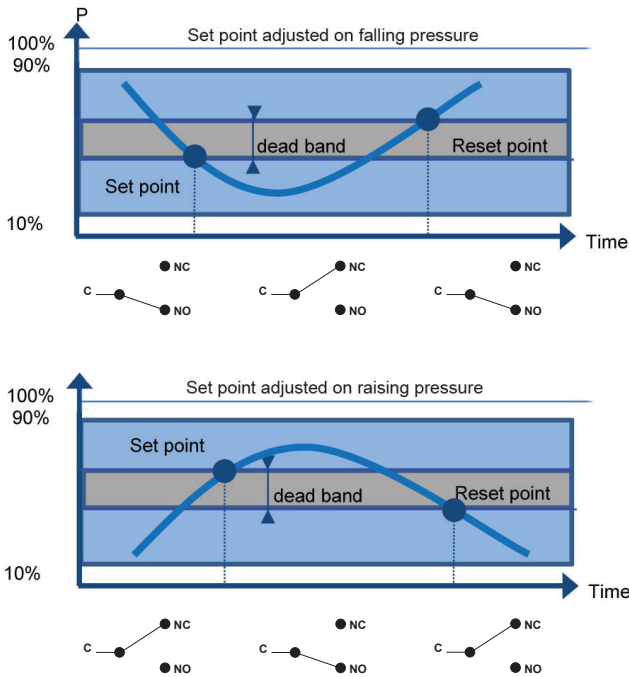
Technical Data

Pressure range	0 ... 1 bar to 0 ... 100 bar	Ground connection	Via internal terminal block
Temperature	Process: -40 ... +150 °C Ambient: -30 ... +70 °C Storage: -40 ... +70 °C	Electrical connection	Via internal terminal block with cable gland for Ø 5.5 to 8.5 mm
Repeatability	± 1% F.S. / constant pressure cycle	Electrical function	See ordering code details on page 4
CE conformity	Low Voltage Directive LVD 2006/95/EC	Adjustment	Internal adjustment possible for set point and dead band
Protection rating	IP 66 (EN 60529)		
Process Connection	Stainless steel 1.4404 (316L)		
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		

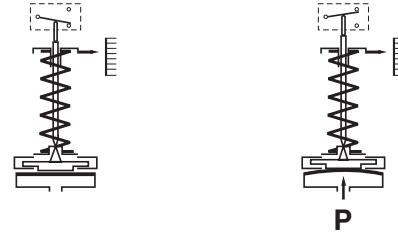
Options

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
- Dead band value (as needed) when using an adjustable dead band switch

Adjustable ranges

Scale	P. Max permanent	P. Max accidental	Code	Micro-switch dead band ¹⁾					
				Adjustable dead band		Fixed dead band			
				R		L		M - P	
				10%	90%	10%	90%	10%	90%
bar	bar	bar		mbar	mbar	mbar	mbar	mbar	mbar
0 ... 1	10	50	41	N/A	N/A	30	60	120	330
0 ... 1.6			42	100 - 200	200 - 550	35	70	150	390
0 ... 2.5			43	125 - 230	250 - 700	40	80	180	480
0 ... 4			44	150 - 290	320 - 900	45	90	210	540
0 ... 6			45	190 - 350	420 - 1200	50	100	240	630
0 ... 10			46	260 - 500	600 - 1800	55	110	300	750
0 ... 4	40	100	51	500 - 1000	1250 - 2000	110	200	600	1320
0 ... 6			52	550 - 1100	1350 - 2200	110	235	750	1620
0 ... 10			53	650 - 1300	1500 - 2600	120	270	840	2010
0 ... 16			54	800 - 1600	1700 - 3100	130	305	960	2370
0 ... 25			55	1000 - 2000	2000 - 3900	140	340	1050	2730
0 ... 40			56	1400 - 2800	2600 - 5200	150	380	1140	3150
0 ... 10	100	200	61	1000 - 2000	3000 - 6000	200	500	1500	3600
0 ... 16			62	1150 - 2300	3500 - 7000	280	700	2100	3960
0 ... 25			63	1350 - 2700	4200 - 8400	360	900	2700	5500
0 ... 40			64	1700 - 3400	5350 - 10700	440	1100	3300	7350
0 ... 60			65	2100 - 4200	6900 - 13800	520	1300	3900	9600
0 ... 100			66	3000 - 6000	10000 - 20000	600	1500	4500	13200

¹⁾ The value of the dead band is depending on the value of the set point.

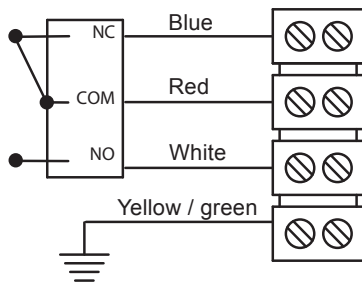
This table contains the dead band values for set point adjustment at 10% and 90% of the selected scale. For adjustable dead band the lower value corresponds to the dead band spring totally released and the higher corresponds to the dead band spring fully tensed. For other set points the dead band value can be calculated by linear interpolation between the values at 10% and 90%.

Micro switches characteristics

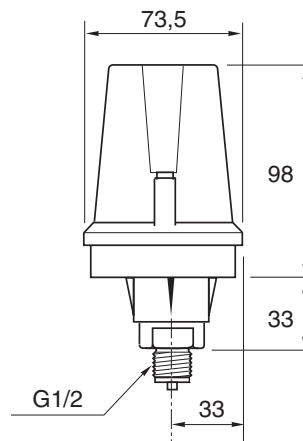
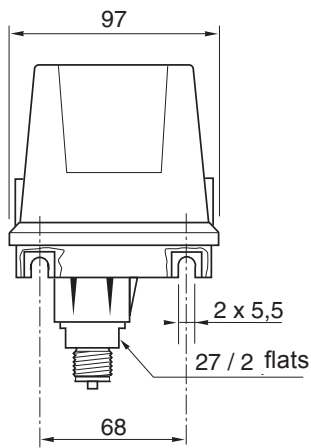
Switch code	R	L	M	P
Type	Adjustable dead band	Fixed dead band		
		Standard	Gold contact	Ultra sensitive
6 Vdc	0.4 ... 10 A	N/A	10 ... 50 mA	0.4 ... 4 A
12 Vdc	0.4 ... 10 A	N/A	10 ... 50 mA	0.4 ... 4 A
24 Vdc	0.4 ... 5 A	N/A	10 ... 50 mA	0.4 ... 4 A
30 Vdc	0.4 ... 5 A	N/A	10 ... 50 mA	0.4 ... 2 A
48 Vdc	0.4 ... 5 A	N/A	10 ... 50 mA	N/A
110 Vdc	0.2 ... 0.5 A	N/A	10 ... 50 mA	N/A
220 Vdc	0.1 ... 0.25 A	N/A	10 ... 50 mA	N/A
115 Vac	0.4 ... 10 A	0.4 ... 10 A	10 ... 50 mA	N/A
250 Vac	0.2 ... 10 A	0.2 ... 10 A	N/A	N/A
Dielectric rigidity between contacts and ground	2000 V	2000 V	2000 V	1000 V

Electrical connections

Micro switch Terminal block



Dimensions (mm)



Ordering details RP2N

RP2 - . xx /

Model

Compact pressure switch

RP2

Approvals

Standard version without ATEX approval

N

Type of micro switches

- 1 SPDT standard change over switch
- 1 SPDT gold contact change over switch
- 1 SPDT hermetically ultra sensitive change over switch
- 1 SPDT change over switch with adjustable dead band

L
M
P
R

Process connection

- G1/2 male (standard)
- 1/2 NPT male
- 1/4 NPT female
- 1/2 NPT female

3
6
8
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 - N L . 3 53 / 0765 - 0407 - 9941

- Compact pressure switch
- Without ATEX approval
- 1 SPDT standard change over switch
- Process connection G1/2 male
- Pressure range 0 ... 10 bar over pressure max. 40 bar
- Option : Oxygen application
- Option : Mounting on 2" pipe
- Option : Stainless steel tag plate and wire