

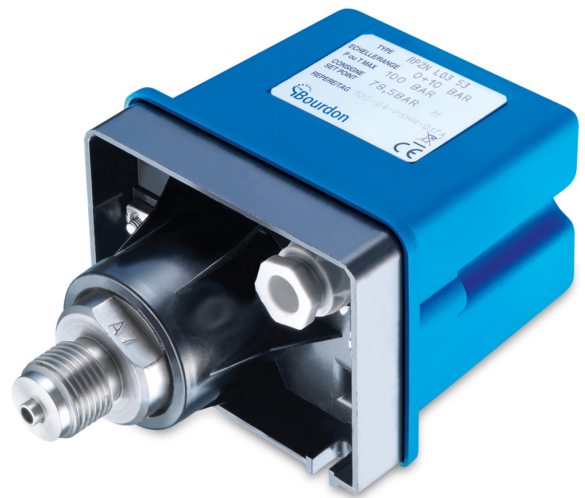
RP2Y

Compact pressure switch intrinsic safety

RP2-##.####/

Overview

- Excellent repeatability
- Fix dead band for control
- Resistant to accidental overpressure
- Intrinsic safety Hazardous area 0, 1, 2



Picture similar



Technical data

Housing

Protection rating (EN60529)	IP66
Body	Black painted, zamak
Case material	Blue, polyamide PA 6
Mounting	Wall mounting, 2 x M5 screws
Scale	Internal graduated scale
Weight	960 g

Performance

Min. pressure range	0 ... 1 bar
Max. pressure range	0 ... 100 bar
Repeatability	± 1 % FS , (constant cycle)

Temperature

Ambient temperature	-30°C ... +70°C (T5) -30°C ... +55°C (T6)
Storage temperature	-40°C ... +70°C
Media temperature	-40°C ... +150°C

Wetted parts

Process connection material	Stainless steel 1.4404 / AISI 316L
Diaphragm	Stainless steel 1.4404 / AISI 316L

Electrical data

Electrical connection	Via internal cable gland for Ø 5.5 to 8.5 mm
Ground connection	Via internal terminal block
Adjustment	Internal adjustment possible for set point

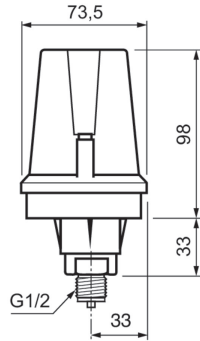
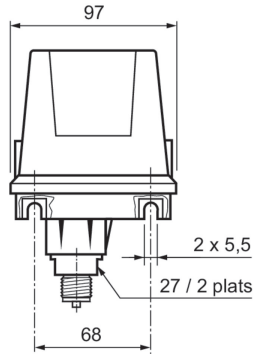
Approval / Conformities

ATEX/IECEX Certificate	LCIE 03 ATEX 6160X IECEX LCIE 15.0058X
ATEX/IECEX	ATEX directive 2014/34/UE Ex I M1 Ex ia I Ma Ex II 1 G Ex ia IIC T6 or T5 Ga Further information can be found in the ATEX approval

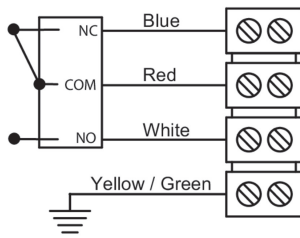
Remarks

- These devices must be used as instruments that provide electrical information according to the value of the input variable. They are not intended to be used as a safety accessory. It is the responsibility of the user to check the compatibility of the device with its intended use.

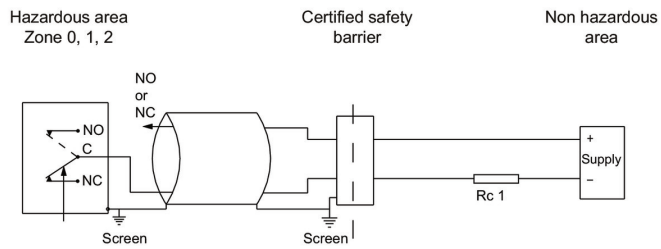
Dimensional drawings (mm)



Electrical connection



1 SPDT

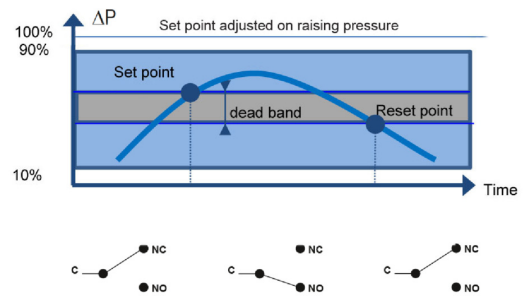
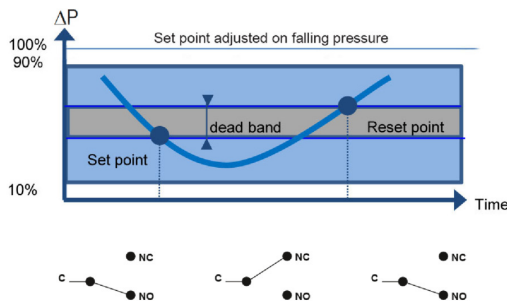


For max. ambient temperature according to temperature classes T5 and T6 refer to technical data.

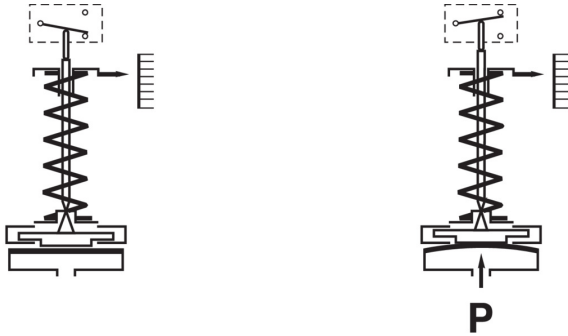
The installation must be made in an intrinsically safe circuit whose certified electrical safety parameters do not exceed any of the values U_{max} , I_{max} and P_{max} given in the electrical data.

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.

Principle



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 (not for RP2Y)

Adjustable ranges

Scale	P. Max permanent	P. Max accidental	Code	Micro-switch dead band ¹⁾	
				Fixed dead band	
				M	
				10%	90%
bar	bar	bar		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

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 other set points the dead band value can be calculated by linear interpolation between the values at 10% and 90%.

Micro switch characteristics

Switch code	M
Type	Fixed dead band
	Gold contact
6 Vdc	10 ... 50 mA
12 Vdc	10 ... 50 mA
24 Vdc	10 ... 50 mA
30 Vdc	10 ... 50 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

Ordering reference

Ordering key - Configuration possibilities see website

	RP2	-	Y	#	.	#	##
Product	RP2						
ATEX			Y				
ATEX I M1			Y				
Ex ia I Ma			Y				
ATEX II 1 G							
Ex ia IIC T6 or T5 Ga							
HAZARDOUS AREA: 0,1,2							
Type of Microswitch							
1xSPDT Standard change-over						L	
1 gold contact changeover switch						M	
1 hermetically ultra sensitive changeover switch						P	
1xSPDT adjust. Dead band						R	
Process connection							
G 1/2							3
1/2 NPT							6
1/4 NPT F							8
1/2 NPT F							N
Pressure range (bar)							
0 +1 bar sp. up to 10bar							41
0 +1.6 bar sp. up to 10bar							42
0 +2.5 bar sp. up to 10bar							43
0 +4.0 bar sp. up to 10bar							44
0 +6.0 bar sp. up to 10bar							45
0 +10 bar sp. up to 10bar							46
0 +4 bar sp. up to 40bar							51
0 +6 bar sp. up to 40bar							52
0 +10 bar sp. up to 40bar							53
0 +16 bar sp. up to 40bar							54
0 +25 bar sp. up to 40bar							55
0 +40 bar sp. up to 40bar							56
0 +10 bar sp. up to 100bar							61
0 +16 bar sp. up to 100bar							62
0 +25 bar sp. up to 100bar							63
0 +40 bar sp. up to 100bar							64
0 +60 bar sp. up to 100bar							65
0 +100 bar sp. up to 100bar							66

Ordering example

	RP2	-	Y	M	.	3	41
Product	RP2						
ATEX			Y				
ATEX I M1			Y				
Ex ia I Ma			Y				
ATEX II 1 G							
Ex ia IIC T6 or T5 Ga							
HAZARDOUS AREA: 0,1,2							
Type of Microswitch							
1 gold contact changeover switch				M			

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Ordering reference

Ordering example

RP2 - Y M . 3 41

Process connection

G 1/2

3

Pressure range (bar)

0 +1 bar sp. up to 10bar

41

Options

Setpoint factory adjusted	SETP	2.1 Certificate	Q001
For oxygen applications	0765	2.2 Certificate	Q002
Mounting on 2 pipe	0407	3.1 Material certificate	Q003
stainless steel label wired*	9941	3.1 Certif. setpoints adjust.	Q011
HOUSING PREPARED FOR LEAD SEAL	8991		