

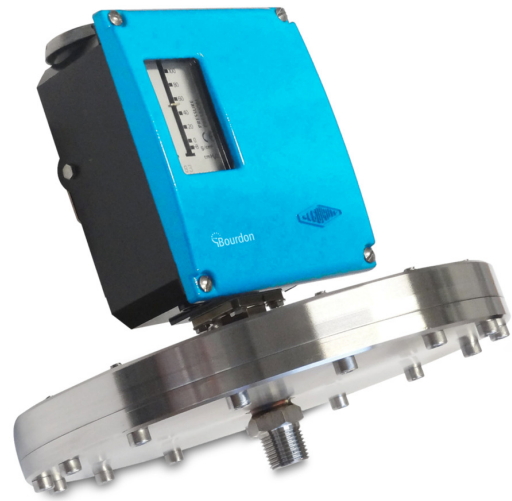
RPPN4

Industrial pressure switch with high overpressure resistance

RPPN-###.###/

Overview

- Excellent repeatability
- Dead band adjustment for regulation
- Fix dead band for control
- High over pressure resistant



Picture similar

Technical data

Housing

Protection rating (EN60529)	IP66
Cover	Blue painted, zamak Captive stainless steel screws
Case material	Black painted, steel
Mounting	Wall mounting bracket
Scale	Internal, accuracy on reading $\pm 5\%$ FS

Performance

Min. pressure range	-50 ... 0 mbar
Max. pressure range	0 ... 2500 mbar
Repeatability	$\pm 1\%$ FS

Temperature

Ambient temperature	-25°C ... +70°C
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Temperature

Storage temperature	-40°C ... +70°C
Media temperature	-15°C ... +150°C

Wetted parts

Process connection material	Stainless steel 1.4404 / AISI 316L
Diaphragm	FKM (Viton)

Electrical data

Electrical connection	Via internal terminal block with plastic cable gland for $\varnothing 7$ to 10.5 mm
Ground connection	Via internal terminal block
Adjustment	2 external adjustment screws on top of the case for set point and deadband

Approval / Conformities

CE conformity	Low Voltage Directive 2014/35/UE
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Remarks

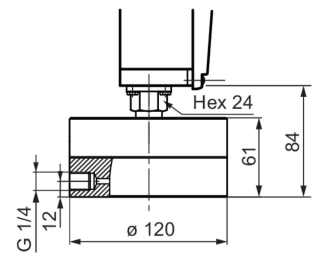
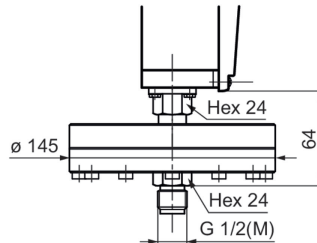
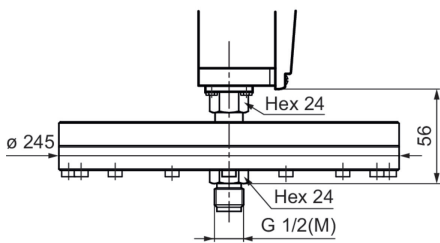
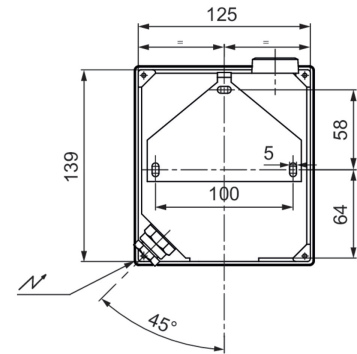
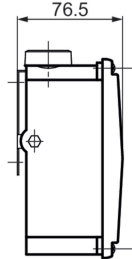
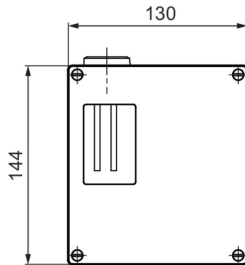
- These devices must be used as instruments that provide electrical information according to the value of the input variable. They are not intended to be used as a safety accessory. It is the responsibility of the user to check the compatibility of the device with its intended use.

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Dimensional drawings (mm)

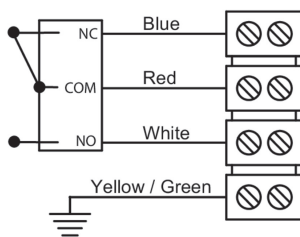


Pressure range codes: 101 - 102 - 103 - 104
Weight: 10 kg

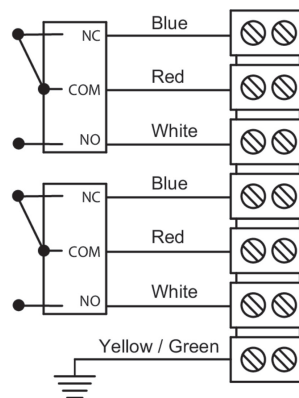
Pressure range codes: 151 - 152 - 153 - 154
Weight: 6.4 kg

Pressure range codes: 171 - 172 - 173
Weight: 7 kg

Electrical connection

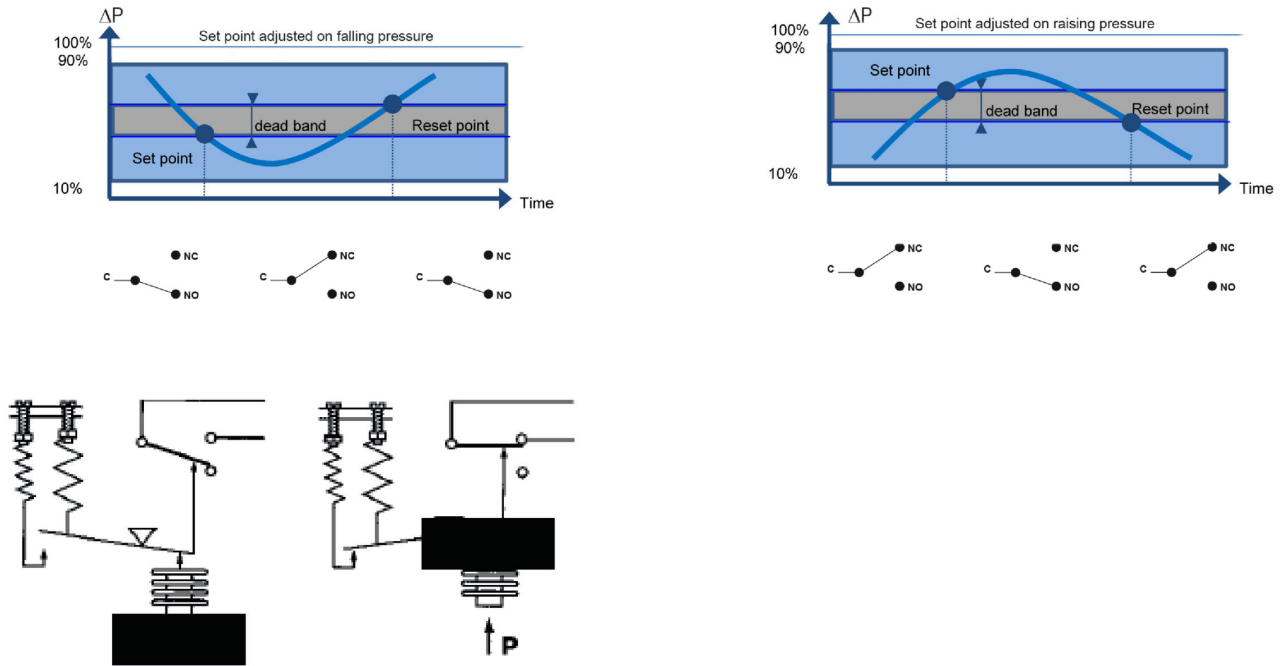


1 SPDT



2 SPDT

Principle



A flexible sensing element actuates a microswitch by means of a lever. 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
- Deadband value (as needed) when using an adjustable dead band switch

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Adjustable ranges

Scale	P. Max accidental	Code	Micro-switch dead band °								
			Adjustable dead band				Fixed dead band				
			A (B*)	M (K*)	C (W*)		E (F*)		H	D (V*)	J
			10%	90%	10%	90%	10%	90%	10%	90%	
mbar	bar	mbar									
-50 ... 0	10	101	2 - 25	2.5 - 25	6.5 - 25	7.5 - 25	0.6	0.6	2.5	3	
-2 ... 10	10	102	1 - 10	1 - 10	N/A	N/A	0.4	0.4	1.5	1.5	
-5 ... 50	10	103	1 - 20	2 - 20	4.5 - 20	5 - 20	0.4	0.4	1.5	2.5	
-8 ... 100	10	104	1.5 - 25	2.5 - 25	5 - 25	10 - 25	0.5	0.5	2	3	
-200 ... 0	50	151	12 - 80	20 - 80	25 - 80	40 - 80	3	4	14.5	25	
0 ... 200	50	152	15 - 80	25 - 80	30 - 80	45 - 80	3.5	4	18	30	
0 ... 400	50	153	17 - 150	30 - 150	35 - 150	50 - 150	4	5.5	20.5	35	
0 ... 1000	50	154	22 - 150	35 - 150	45 - 150	60 - 150	6	7	26.5	45	
0 ... 700	100	171**	20 - 350	40 - 350	40 - 350	70 - 350	7	9	24	50	
0 ... 1500	100	172**	20 - 350	60 - 350	40 - 350	100 - 350	7	9	24	75	
0 ... 2500	100	173**	25 - 350	90 - 350	50 - 350	160 - 350	9	11	30	110	

(*) When using 2 microswitches dead band lower values should be x1.5

(**) G1/4 female only

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 switch characteristics

Switch code	A (B)	M (K)	C (W)	E (F)	H	D (V)	J
Type	Standard	Gold contact	Hermetic	Ultra sensitive	Manual reset	Ultra sensitive Hermetic	Manual reset
6 Vdc	0.4 ... 10 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	N/A	0.4 ... 4 A	N/A
12 Vdc	0.4 ... 10 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	N/A	0.4 ... 4 A	N/A
24 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	0.1 ... 8 A	0.4 ... 4 A	0.1 ... 8 A
30 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	0.4 ... 1 A	0.1 ... 8 A	0.4 ... 2 A	0.1 ... 8 A
48 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	N/A	N/A	N/A	N/A
110 Vdc	0.1 ... 0.5 A	10 ... 50 mA	5 mA ... 1 A	N/A	N/A	N/A	N/A
220 Vdc	0.1 ... 0.25 A	10 ... 50 mA	5 mA ... 0.5 A	N/A	N/A	N/A	N/A
115 Vac	0.4 ... 10 A	10 ... 50 mA	50 mA ... 3 A	0.4 ... 10 A	0.1 ... 10 A	N/A	0.1 ... 10 A
250 Vac	0.2 ... 10 A	N/A	50 mA ... 2.5 A	0.2 ... 10 A	0.1 ... 5 A	N/A	0.1 ... 5 A
Dielectric rigidity between contacts and ground	2000 V	2000 V	1500 V	2000 V	2000 V	1000 V	2000 V

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Ordering reference

Ordering key - Configuration possibilities see website

	RPPN	-	4	#	#	.	###
Product	RPPN						
Sensing element	Diaphragm, Viton® (max.2.5 bar)		4				
Type of Microswitch							
1xSPDT, Standard				A			
simultaneous				B			
1xSPDT, hermetically				C			
simultaneous				W			
1xSPDT, ultra sensitive				E			
simultaneous				F			
simultaneous				V			
1 gold contact changeover switch				M			
simultaneous				K			
1xSPDT, manually, falling				H			
1xSPDT, manually, rising				J			
Pneumatic type, NC				Y			
Pneumatic type, NO				Z			
Process connection							
G 1/4 Internal Screw						H	
G 1/2						3	
1/2 NPT						6	
1/4 NPT F						8	
Pressure range							
-50 ... 0 mbar							101
-2 ... 10 mbar							102
-5 ... 50 mbar							103
-8 ... 100 mbar							104
-200 ... 0 mbar							151
0 ... 200 mbar							152
0 ... 400 mbar							153
0 ... 1000 mbar							154
0 ... 700 mbar							171
0 ... 1500 mbar							172
0 ... 2500 mbar							173

Ordering example

	RPPN	-	4	A	3	.	101	/	SETP
Product	RPPN								
Sensing element	Diaphragm, Viton® (max.2.5 bar)		4						
Type of Microswitch	1xSPDT, Standard			A					
Process connection	G 1/2				3				
Pressure range	-50 ... 0 mbar						101		
Adjustment	Setpoint factory adjusted								SETP

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Options

Setpoint factory adjusted	SETP	Setpoint adjust. lead sealed	8990
For oxygen applications	0765	2.1 Certificate	Q001
Mounting on 2 pipe	0407	2.2 Certificate	Q002
Souriau connection	2298	3.1 Material certificate	Q003
Souriau mobile plug	2249	3.1 Certif. setpoints adjust.	Q011
stainless steel label wired*	9941		