

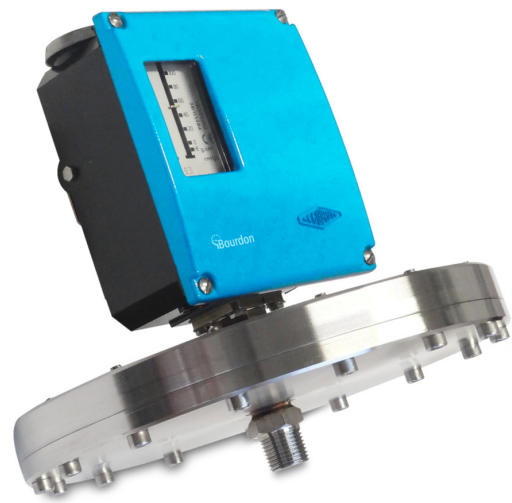
RPPY4

Industrial pressure switch with intrinsic safety and high overpressure resistance

RPPY-###.###/

Overview

- Excellent repeatability
- Dead band adjustment for regulation
- Fix dead band for control
- High over pressure resistant
- Intrinsic safety Hazardous area 0, 1, 2



Picture similar



Technical data

Housing

Protection rating (EN60529)	IP66
Cover	Blue painted, zamak Captive stainless steel screws
Case material	Black painted, zamak
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 (T5) -25°C ... +55°C (T6)
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)

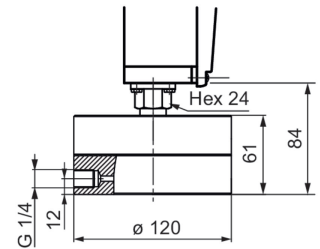
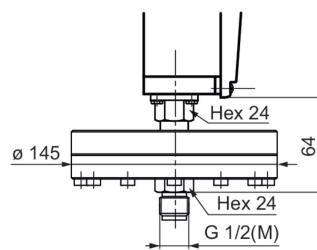
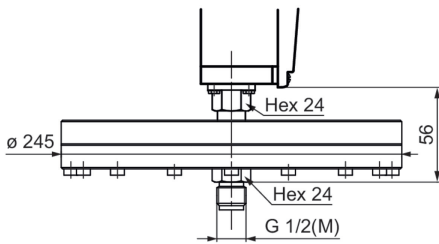
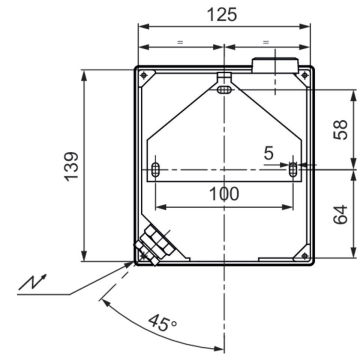
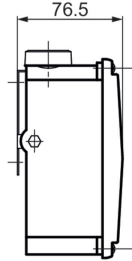
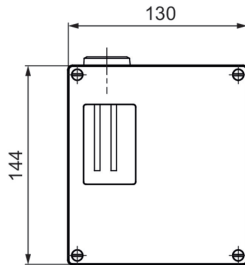
Electrical data

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

ATEX/IECEX Certificate	LCIE 03 ATEX 6123X IECEX LCIE 15.0060X
ATEX/IECEX	ATEX directive 2014/34/UE Ex I M1 Ex II 1 G Further information can be found in the ATEX approval

Dimensional drawings (mm)

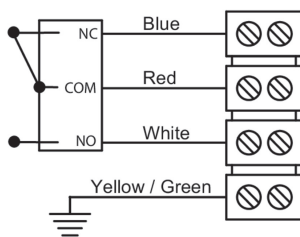


Pressure range codes: 101 - 102 - 103 - 104
Weight: 10 kg

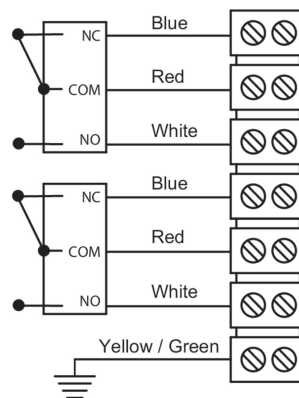
Pressure range codes: 151 - 152 - 153
Weight: 6.4 kg

Pressure range codes: 171 - 172 - 173
Weight: 6.4 kg

Electrical connection

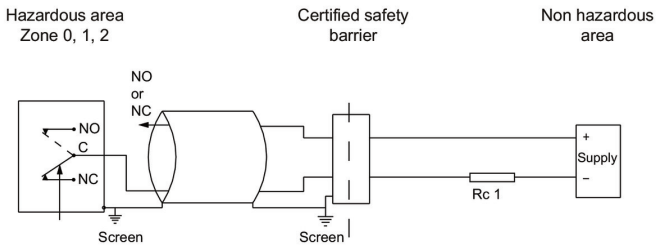


1 SPDT



2 SPDT

Electrical connection

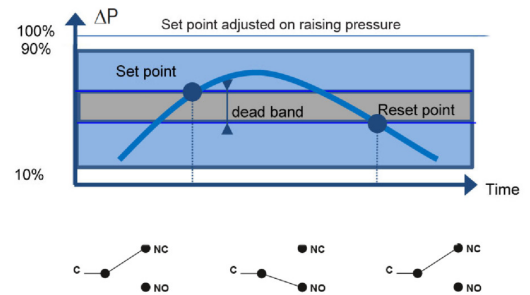
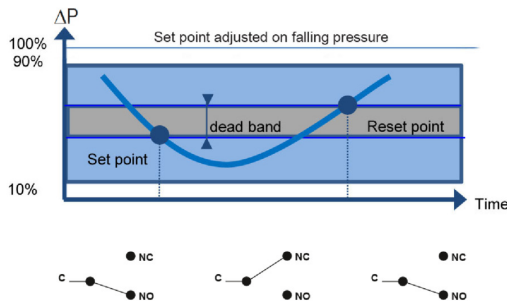


For max. ambient temperature according to temperature classes T5 and T6 refer to technical data.

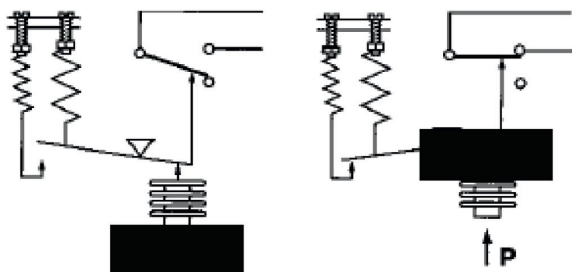
The installation must be made in an intrinsically safe circuit whose certified electrical safety parameters do not exceed any of the values U_{max} , I_{max} and P_{max} given in the electrical data.

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 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

RPPY4

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RPPY-###.###/

Adjustable ranges

Scale	P. Max accidental	Code	Micro-switch dead band ¹⁾					
			Adjustable dead band				Fixed dead band	
			M (K*)		C (W*)		S	
mbar	bar		10%	90%	10%	90%	10%	90%
			mbar	mbar	mbar	mbar	mbar	mbar
-50 ... 0	10	101	2 - 25	2.5 - 25	6.5 - 25	7.5 - 25	1.4	1.7
-2 ... 10	10	102	1 - 10	1 - 10	N/A	N/A	1	1.1
-5 ... 50	10	103	1 - 20	2 - 20	4.5 - 20	5 - 20	1	1.1
-8 ... 100	10	104	1.5 - 25	2.5 - 25	5 - 25	10 - 25	1.2	1.4
-200 ... 0	50	151	12 - 80	20 - 80	25 - 80	40 - 80	7	11
0 ... 200	50	152	15 - 80	25 - 80	30 - 80	45 - 80	8	11
0 ... 400	50	153	17 - 150	30 - 150	35 - 150	50 - 150	9.2	15.4
0 ... 1000	50	154	22 - 150	35 - 150	45 - 150	60 - 150	14	19.5
0 ... 700	100	171**	20 - 350	40 - 350	40 - 350	70 - 350	16	25
0 ... 1500	100	172**	20 - 350	60 - 350	40 - 350	100 - 350	16	25
0 ... 2500	100	173**	25 - 350	90 - 350	50 - 350	160 - 350	21	31

(*) For version with 2 microswitches lower values of the dead band must be multiplied x 1.5

(**) 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	M (K)	C (W)	S
Type	Gold contact	Hermetic	Ultrasensitive Gold contact
6 Vdc	10 ... 50 mA	5 ... 120 mA	10 ... 50 mA
12 Vdc	10 ... 50 mA	5 ... 120 mA	10 ... 50 mA
24 Vdc	10 ... 50 mA	5 ... 120 mA	10 ... 50 mA
30 Vdc	N/A	N/A	N/A
48 Vdc	N/A	N/A	N/A
110 Vdc	N/A	N/A	N/A
220 Vdc	N/A	N/A	N/A
115 Vac	N/A	N/A	N/A
250 Vac	N/A	N/A	N/A
Dielectric rigidity between contacts and ground	2000 V	1500 V	2000 V

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RPPY-###.###/

Ordering reference

Ordering key - Configuration possibilities see website

	RPPY	-	4	#	#	.	###
Product	RPPY						
Sensing element	Diaphragm, Viton® (max.2.5 bar)		4				
Type of Microswitch	1xSPDT, hermetically						C
	simultaneous						W
	1xSPDT, gold, ultra sensitive						S
	1 gold contact changeover switch						M
	simultaneous						K
Process connection	G 1/2						3
	G 1/4 Internal Screw						H
	1/2 NPT						6
	1/4 NPT F						8
Pressure range	-50 ... 0 mbar						101
	-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

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

RPPY4

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RPPY-###.###/

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		