

RPPY7

Industrial pressure switch with intrinsic safety

RPPY-###.###/

Overview

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



Picture similar



Technical data

Housing

Protection rating (EN60529)	IP66
Cover	Black 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	-1 ... 0 bar
Max. pressure range	60 ... 600 bar
Repeatability	$\pm 1\%$ FS

Temperature: Pressure range codes 200 to 602

Ambient temperature	-25°C ... +55°C (T6)
Storage temperature	-40°C ... +70°C
Media temperature	-50°C ... +200°C

Wetted parts

Piston	Nickel plated steel
Bellow	Stainless steel 1.4404 / AISI 316L Stainless steel 1.4432 / AISI 316L

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

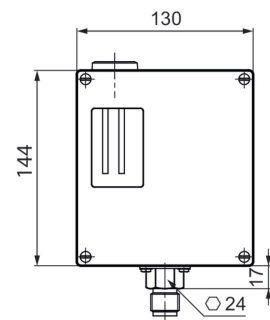
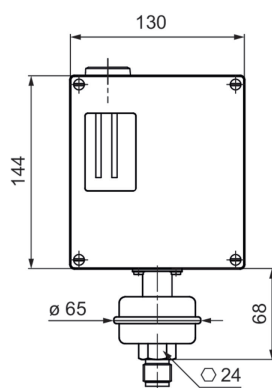
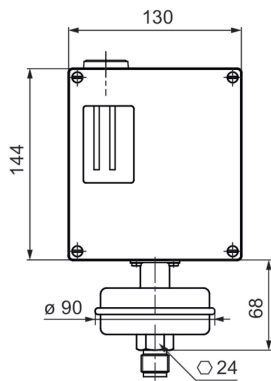
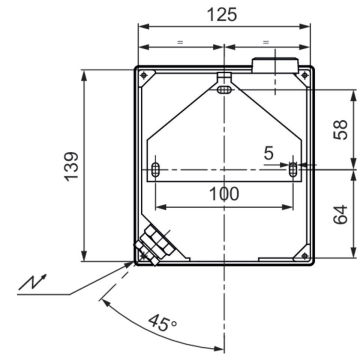
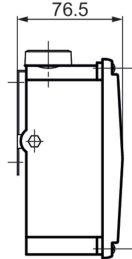
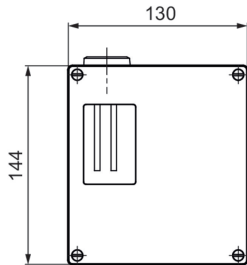
Approval / Conformities

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

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)



Pressure range codes: 200 - 202 - 203

Weight: 2.5 kg

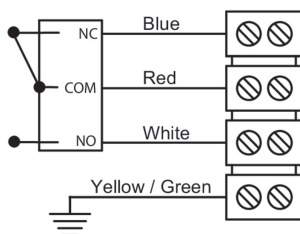
Pressure range codes: 201

Weight: 2.5 kg

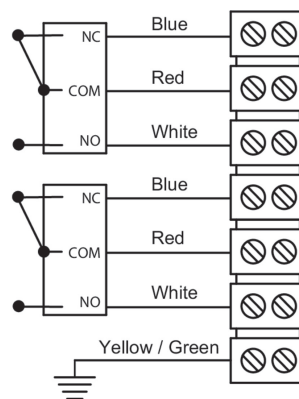
Pressure range codes: 204 - 205 - 206 - 207
- 208 - 209 - 600 - 601 - 602

Weight: 2 kg

Electrical connection

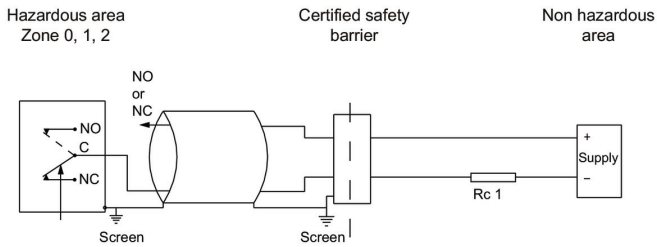


1 SPDT



2 SPDT

Electrical connection

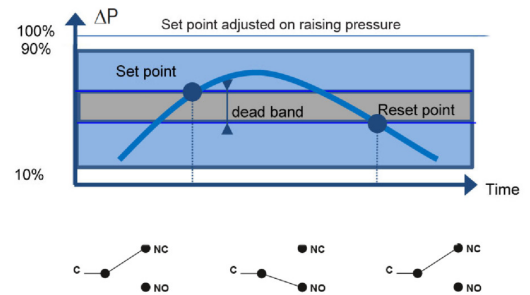
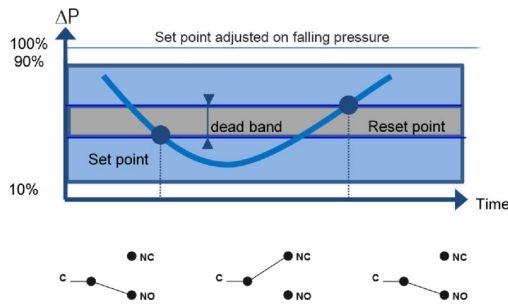


For max. ambient temperature according to temperature classes T5 and T6 refer to technical data.

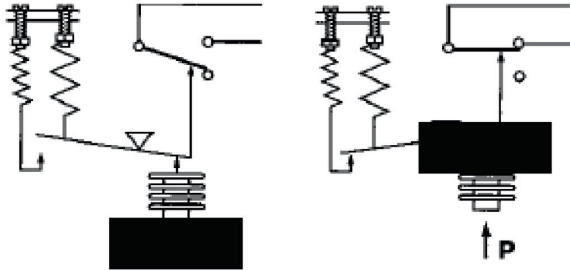
The installation must be made in an intrinsically safe circuit whose certified electrical safety parameters do not exceed any of the values U_{max} , I_{max} and P_{max} given in the electrical data.

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

Adjustable ranges

Scale	P. Max accidental	Code	Micro-switch dead band ¹⁾					
			Adjustable dead band				Fixed dead band	
			M (K*)		C (W*)		S	
			10%	90%	10%	90%	10%	90%
bar	bar	Code	mbar					
-1 ... 0	1.5	200	25 - 250	35 - 250	80 - 250	95 - 250	12	17
-1 ... 2.5	7	201	80 - 1200	100 - 1200	150 - 1200	200 - 1200	50	70
0 ... 0.2	1.5	202	15 - 100	20 - 100	60 - 100	65 - 100	10	14
0.05 ... 1	1.5	203	20 - 400	25 - 400	80 - 400	95 - 400	10	14
0.5 ... 10	30	204	200 - 3000	250 - 3000	650 - 3000	850 - 3000	105	140
3.5 ... 25	30	205	600 - 5000	1200 - 5000	750 - 5000	1300 - 5000	140	280
bar	bar	Code	bar					
5 ... 50	65	206	1 - 10	2 - 10	2.5 - 10	3 - 10	0.345	0.560
5 ... 100	220	207	2.5 - 15	3 - 15	5.5 - 15	6.5 - 15	1.2	1.6
20 ... 150	220	208	2.5 - 15	3.5 - 15	5.5 - 15	6.5 - 15	1.2	1.7
-1 ... 3.5	30	209	0.15 - 1.5	0.2 - 1.5	0.65 - 1.5	0.85 - 1.5	0.105	0.140
25 ... 175	800	600	20 - 80	30 - 80	30 - 80	35 - 80	23	40
30 ... 350	800	601	20 - 100	30 - 100	30 - 100	35 - 100	26	50
60 ... 600	800	602	20 - 120	30 - 120	30 - 120	35 - 120	26	60

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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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Ordering reference

Ordering key - Configuration possibilities see website

	RPPY	-	7	#	#	.	###
Product	RPPY						
Sensing element	Bellow or Piston		7				
Type of Microswitch	1xSPDT, hermetically			C			
	simultaneous			W			
	1 gold contact changeover switch			M			
	simultaneous			K			
	1xSPDT, gold, ultra sensitive			S			
Process connection	G 1/2					3	
	1/2 NPT					6	
	1/4 NPT F					8	
Pressure range	-1 ... 0 bar						200
	-1 ... 2.5 bar						201
	0 ... 0.2 bar						202
	0,05 ... 1 bar						203
	0,5 ... 10 bar						204
	3,5 ... 25 bar						205
	5 ... 50 bar						206
	5 ... 100 bar						207
	20 ... 150 bar						208
	-1 ... 3,5 bar						209
	25 ... 175 bar						600
	30 ... 350 bar						601
	60 ... 600 bar						602

Ordering example

	RPPY	-	7	C	3	.	200	/	SETP
Product	RPPY								
Sensing element	Bellow or Piston		7						
Type of Microswitch	1xSPDT, hermetically			C					
Process connection	G 1/2				3				
Pressure range	-1 ... 0 bar						200		
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		