Pressure switches

RPPE6

Industrial pressure switch, explosion proof with high overpressure resistance

RPPE-###.###/

Overview

- Excellent repeatability
- Dead band adjustment for regulation
- Fix dead band for control
- Overpressure up to 80 bar
- Explosion proof Hazardous areas 1, 2, 21, 22

Picture similar

Technical data

Housing	
Protection rating (EN60529)	IP66
Case material	Epoxy painted, Aluminium Captive stainless steel screws Type RA80 Explosion-proof and flame-proof
Mounting	Wall mounting, 3 back lugs
Scale	Internal, accuracy on reading ± 5 % FS
Performance	
Min. pressure range	-1 ... 2.5 bar
Repeatability	± 1 % FS
Temperature	
Ambient temperature	-20°C ... +55°C (T6)
Storage temperature	-40°C ... +40°C ,Code 40
Media temperature	-50°C ... +200°C

Wetted parts	
Diaphragm	Perbunan
Flange	Steel, galvanized, bichromate finish
Electrical data	
Electrical connection	Via internal terminal block with metallic cable gland for Ø 7 to 12 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 6231X (Type RA80) IECEx LCIE 15.0061X
ATEX/IECEx	ATEX directive 2014/34/UE Ex II 2 GD Ex d IIC T6 or T5 Gb Ex tb IIIC T80°C or T95°C Db Further information can be found in the ATEX approval

Remarks

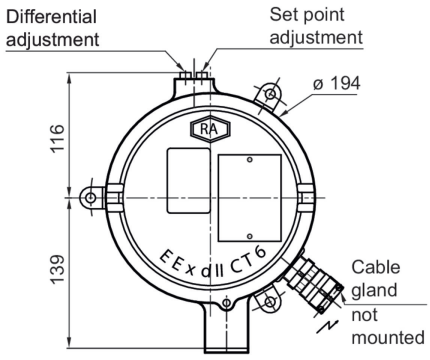
- These devices must be used as instruments that provide electrical information according to the value of the input variable. They are not intended to be used as a safety accessory. It is the responsibility of the user to check the compatibility of the device with its intended use.

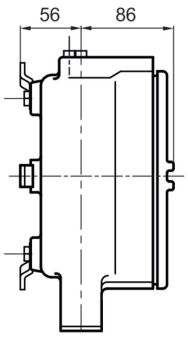
RPPE6

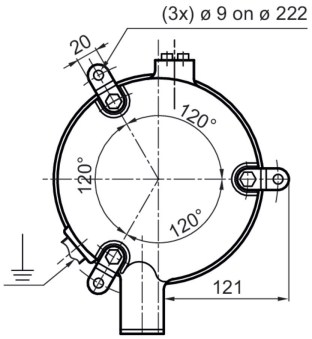
Industrial pressure switch, explosion proof with high overpressure resistance

RPPE-###.###/

Dimensional drawings (mm)

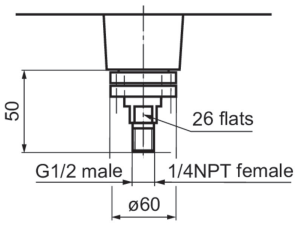






Weight: 4.4 kg

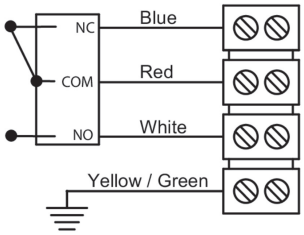
Weight: 4.4 kg



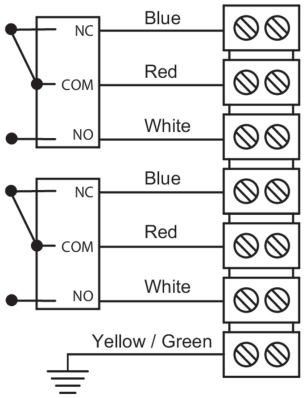
Pressure range codes: 201

Weight: 0.5 kg

Electrical connection



1 SPDT



2 SPDT

RPPE6

Industrial pressure switch, explosion proof with high overpressure resistance

RPPE-###.###/

Electrical connection

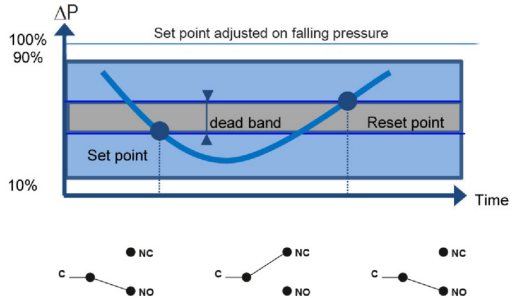
-20°C ≤ Ta ≤ +70°C	Dust IP6x	Gases
	T° surface	Class
Ta = 60°C	80°C	T6
Ta = 70°C	95°C	T5

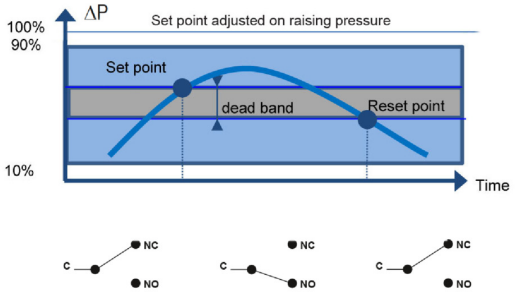
<u>Important</u> : Maximum power dissipation in the case must not exceed 5 W

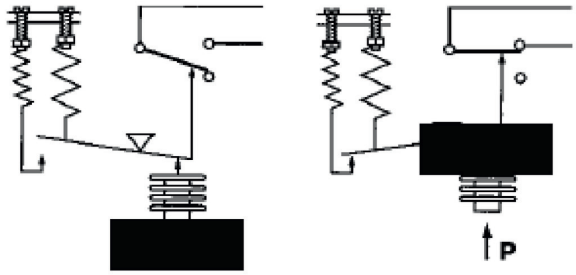
Hazardous areas: zone 1, 2, 21, 22

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







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

RPPE6

Industrial pressure switch, explosion proof with high overpressure resistance

RPPE-###.###/

Adjustable ranges

Scale	P. Max accidental	Code	Micro-switch deadband [1]							
			Adjustable deadband				Fixed deadband			
			A (B*) M (K*)		C (W*)		E (F*)		D (V*)	
bar	bar		10%	90%	10%	90%	10%	90%	10%	90%
			bar	bar	bar	bar	mbar	mbar	bar	bar
-1 ... 2.5	80	201	0.37 - 3	0.45 - 3	1.2 - 3	1.5 - 3	97	112	0.45	0.52

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

1) The value of the deadband is depending on the value of the set point. This table contains the deadband values for set point adjustment at 10% and 90% of the selected scale. For adjustable deadband the lower value corresponds to the deadband spring totally released and the higher corresponds to the deadband spring fully tensed. For other set points the deadband 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)	D (V)
Type	Standard	Gold contact	Hermetic	Ultra sensitive	Ultra sensitive Hermetic
6 Vdc	0.4 ... 10 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	0.4 ... 4 A
12 Vdc	0.4 ... 10 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	0.4 ... 4 A
24 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	0.4 ... 4 A
30 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	0.4 ... 1 A	0.4 ... 2 A
48 Vdc	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	N/A	N/A
110 Vdc	0.1 ... 0.5 A	10 ... 50 mA	5 mA ... 1 A	N/A	N/A
220 Vdc	0.1 ... 0.25 A	10 ... 50 mA	5 mA ... 0.5 A	N/A	N/A
115 Vac	0.4 ... 10 A	10 ... 50 mA	50 mA ... 3 A	0.4 ... 10 A	N/A
250 Vac	0.2 ... 10 A	N/A	50 mA ... 2.5 A	0.2 ... 10 A	N/A
Dielectric rigidity between contacts and ground	2000 V	2000 V	1500 V	2000 V	1000 V

RPPE6

Industrial pressure switch, explosion proof with high overpressure resistance

RPPE-###.###/

Ordering reference

Ordering key - Configuration possibilities see website

	RPPE	-	6	#	#	.	201
Product							
RPPE	RPPE						
Sensing element							
Diaphragm, Perbunan®			6				
Type of Microswitch							
1xSPDT, Standard				A			
simultaneous				B			
1xSPDT, hermetically				C			
simultaneous				W			
1xSPDT, ultra sensitive				E			
simultaneous				F			
1xSPDT hermetic/ultra sensit.?				D			
simultaneous				V			
1 gold contact changeover switch				M			
simultaneous				K			
Process connection							
G 1/2					3		
1/2 NPT					6		
1/4 NPT F					8		
Pressure range							
-1 ... 2.5 bar							201

Ordering example

	RPPE	-	6	A	3	.	201
Product							
RPPE	RPPE						
Sensing element							
Diaphragm, Perbunan®			6				
Type of Microswitch							
1xSPDT, Standard				A			
Process connection							
G 1/2					3		
Pressure range							
-1 ... 2.5 bar							201

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
Setpoint adjust. lead sealed	8990		