

# REDBIN-P PRESSURE / DIFFERENTIAL PRESSURE SWITCH

Zones 2, 22

Full catalogue available on our website: [www.inpratex.com](http://www.inpratex.com)

## ATEX INSTRUMENTATION

## ZONES 2 (gas) & 22 (dust)

The RedBin-P... pressure switch generation from 5...5000 Pa (acc. to type) is a revolution for differential pressure switches in HVAC systems, in chemical, pharmaceutical, industrial and offshore/onshore plants, for use in hazardous areas zone 2 (gas) and zone 22 (dust).

Highest protection class (ATEX) and IP66 protection, small dimensions, universal functions and technical data guarantee safe operation even under difficult environmental conditions. All sensors are programmable on site without any additional tools.



- Power supply 24 VAC/DC
- Potential free switching contact output
- Adjustable switching threshold, hysteresis and start-up bypass time
- Adjustable switch activation delay (acc. to type)
- Integrated Ex-e terminal box
- No additional Ex-i module required
- No intrinsically safe wiring/installation between panel and sensor required
- No intrinsically safe wiring/installation and no space in the panel required
- Optional second switching output (acc. to type)
- Display with backlight, can be switched off
- Password locking
- Compact design and small dimension



EU-Type Examination Certificate

All pressure switches require a 24 VAC/DC power supply. The electrical wiring must be realized via the integrated Ex terminal box acc. to ATEX.

### RedBin-P DIFFERENTIAL PRESSURE SWITCH FOR ZONE 2, 22

Type:	Measurement range:	Safe overload:	Setting range:	Special feature:	Item No.:
RedBin-P- 100	0...100 Pa	up to 5.000 Pa	1-stage adjustable switch-point in meas. range	Adjustable switch activation delay 0...240 s	9A2401
RedBin-P- 500	0...500 Pa	up to 5.000 Pa	1-stage adjustable switch-point in meas. range		9A2402
RedBin-P- 500-2	0...500 Pa	up to 5.000 Pa	2-stage adjustable switch-point in meas. range		9A2403
RedBin-P-5000	0...5000 Pa	up to 50.000 Pa	1-stage adjustable switch-point in meas. range		9A2404
RedBin-P-5000-2	0...5000 Pa	up to 50.000 Pa	2 stage adjustable switch-point in meas. range		9A2405

### ACCESSORIES AND SPECIAL DESIGNS



Type:	Technical specifications:
Kit 2	Includes 2 meter pressure hose (inner diameter 6 mm) and 2 plastic fittings
MKR-VA/AL	Mounting bracket for installation on round air-ducts (diameter up to 600 mm)

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## TECHNICAL SPECIFICATIONS

Marking:	 II 3(1)G Ex nC [ia Ga] IIC T6...T4 Gc  II 3(1)D Ex tc [ia Da] IIIC T80°C...T130°C Dc IP66		
Certificate:	EU-Type Examination Certificate		
Supply voltage / frequency:	24 VAC/DC $\pm 20\%$ (19,2...28,8 VAC/DC), 50/60 Hz		
Current power consumption:	150 mA, ~ 4 W, internal fuse 500 mA, without bracket, not removable		
Galvanic isolation:	Supply for relay output min. 1,5 kV		
Electrical connection:	Terminals 0,14...2,5 mm <sup>2</sup> at integrated Ex-e terminal box, stripping length 9 mm, torque 0,4...0,5 Nm, equipotential bonding 4 mm <sup>2</sup>		
Display / Control elements:	LC-Display, backlit, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs 3 buttons for configuration		
Sensor / Sensor circuit:	Piezo measure transmitter / Internal intrinsically safe (IS) circuit		
Housing:	Aluminium housing T6 (T80 °C) at -20...+50 °C		
Ambient Temperature - Humidity:	-20...+50 °C (storage temperature -35...+70 °C) / 0...95 % rH, non condensing		
Pressure connection:	P+ / P- sleeves $\varnothing 4...6$ mm		
Measuring range:	0...100 Pa	0...500 Pa	0...5000 Pa.
	Minimum measuring range is 5 % of full range (e.g. 25 Pa at ...500 Pa switch)		
Response time of sensor:	T90 / 5 s		
Accuracy of pressure:	$\pm 1\%$ typically, max. $\pm 2\%$ of end value $\pm 1$ Pa		
Setting zero point:	Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting		
Setting range hysteresis:	0,1...10 Pa (factory setting 2 Pa)	0,5...50 Pa (factory setting 10 Pa)	5...500 Pa (factory setting 100 Pa)
Start delay:	5 s		
Start-up bypass time (AUB):	3...240 s (factory setting 120 s)		
Switch activation delay:	0...240 s (factory setting 0 s / Off)	-	-
Output:	Potential free switching contact – breaking/making contact, adjustable per menu Max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA		
Additional relay output (type ...-2):	-	as above	-
Duration of life:	Mechanical: $10 \times 10^6$ Electrical: (rated load) $100 \times 10^3$		
Scope of delivery:	Pressure switch, 3 self-tapping screws 4,2 x 13 mm resp. in stainless steel (with ...CT and ...VA versions), short circuit tube		
Dimensions:	180 x 107 x 66 mm		
Weight:	~ 950 g		
Cable entries:	2 x M16x1,5, Ex-e plastic cable gland ~ $\varnothing 5...9$ mm		

