

# REDBIN-FR FROST PROTECTION THERMOSTATS

Zones 2, 22

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

## ATEX INSTRUMENTATION

## ZONES 1, 2 (gas) & 21, 22 (dust)



The RedBin-FR... frost protection thermostat is a revolution 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 frost protection thermostats are programmable on site without any additional tools. The switching point is scalable within the maximum ranges.

- No additional Ex-i module required
- Integrated Ex-e terminal box
- Power supply 24 VAC/DC
- LED switching state indication
- Compact design and small dimension
- IP66 protection



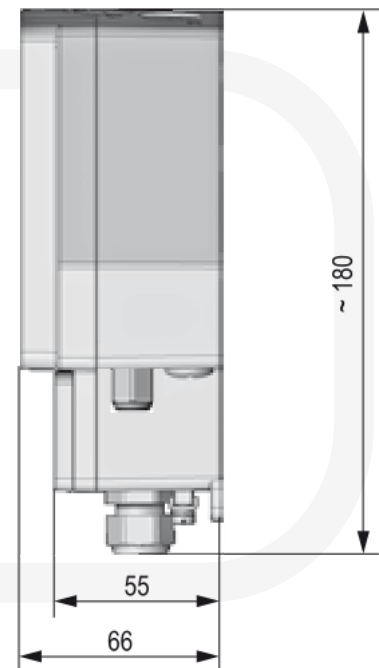
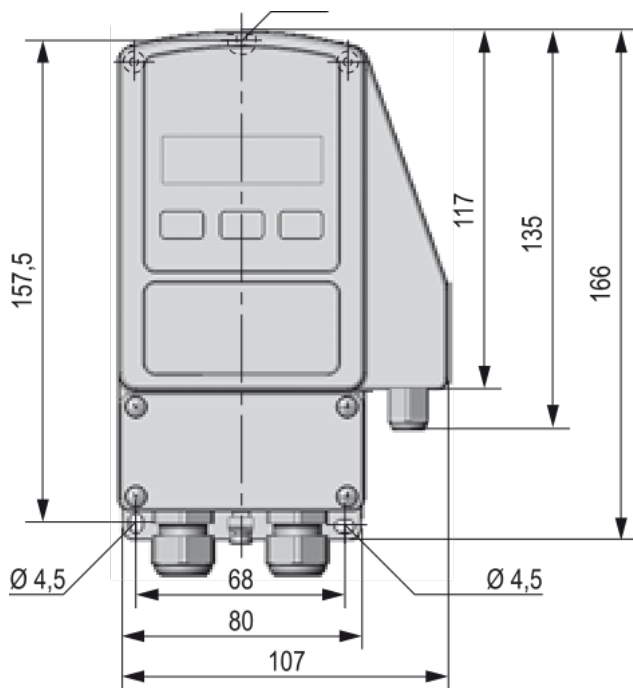
EU-Type Examination Certificate

### RedBin-FR FROST PROTECTION THERMOSTATS FOR ZONE 2, 22

Type:	Capillary:	Temperature range:	Setting range:	Item No.:
RedBin-FR-3	3 m	-10 ... +15 °C	1-stage adjustable switch-point in temperature range	9A2601
RedBin-FR-6	6 m	-10 ... +15 °C	1-stage adjustable switch-point in temperature range	9A2602

### ACCESSORIES AND SPECIAL DESIGNS

Type:	Technical specifications:
Kit 1.3	Capillary duct, assembly cramp and 4 assembly brackets for frost protection thermostat ..Bin-FR-3
Kit 1.6	Capillary duct, assembly cramp and 4 assembly brackets for frost protection thermostat ..Bin-FR-6
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 Gc  II 3(1)D Ex tc [ia Da] IIIC T80°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, 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>
Control elements:	Rotary control for setpoint adjustment and fixing screw
Measuring range:	Setpoint adjustable -10 °C...+15 °C
Status indication:	Via LEDs - GREEN: ambient temperature is above setpoint (normal), RED: ambient temperature is below setpoint
Housing material:	Aluminium die-cast housing, coated.
Ambient temperature:	-20...+50 °C, capillary max. +80 °C, storage temperature -35...+70 °C
Temperature class:	T6 (T80 °C) bei -20...+50 °C
Ambient humidity:	0...95 % rH, non condensin
Sensor circuit	Internal intrinsically safe (IS) circuit
Capillary:	Length: ...FR-3 - 3 m $\pm$ 15 cm   ...FR-6 - 6 m $\pm$ 20 cm min. active length ~ 40 cm   min. bending radius 2 cm
Hysteresis:	~ 6 K, accuracy of setpoints $\pm$ 3 K
Start delay:	5 s
Output:	Potential free switching contact - breaking contact 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
Duration of life:	Mechanical 10 $\times$ 10 <sup>6</sup> Electrical (rated load) 100 $\times$ 10 <sup>3</sup>
Scope of delivery:	Frost protection thermostat, self-tapping screws 4,2 x 13 mm
Dimensions:	180 $\times$ 107 $\times$ 66 mm (without connectors)
Weight:	~ 950 g
Cable entries:	2 x M16x1,5 mm, Ex-e approved, for cable diameter ~ $\varnothing$ 5...9 mm



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