

REDBIN-D THERMOSTATS / HYGROSTATS

Zones 2, 22

Full catalogue available on our website: www.inpratex.com

ATEX INSTRUMENTATION

ZONES 2 (gas) & 22 (dust)



The RedBin-D... transmitter generation with directly coupled ExPro-B... sensors is a revolution for measuring temperature and/or humidity 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. The switching points are scalable within the maximum ranges. The integrated display (can be switched off as needed) is for parametrisation and an actual value indication at working mode.

- No additional Ex-i module required
- Integrated Ex-e terminal box
- Power supply 24 VAC/DC
- Scalable, potential free switching contact
- Display with backlight, can be switched off
- Password locking



EU-Type Examination Certificate



RedBin-D THERMOSTATS AND/OR HYGROSTATS FOR ZONE 2, 22

Type:	Technical specifications:	Module:	Sensor ExPro-B:	Item No.:
RedBin-D	Module for connection of one ExPro-B... sensor as thermostat and/or hygrometer, 1-stage	Zone 2, 22	Zone 1, 2, 21, 22	9A1701
RedBin-D-2	Module for connection of one ExPro-B... sensor as thermostat and/or hygrometer, 2-stage	Zone 2, 22	Zone 1, 2, 21, 22	9A1702

ExPro-B SENSORS FOR ExBin-D AND RedBin-D MODULES

Type:	Function:	Range:	Sensor length:	Main use:
ExPro-BT - 50	Thermostat	-40 to +80 °C	50 mm	Room/Duct
ExPro-BT -100	Thermostat	-40 to +125 °C	100 mm	Duct
ExPro-BT -150	Thermostat	-40 to +125 °C	150 mm	Duct
ExPro-BT -200	Thermostat	-40 to +125 °C	200 mm	Duct
ExPro-BF - 50	Hygrometer	0...100%rH	50 mm	Room/Duct
ExPro-BF -100	Hygrometer	0...100%rH	100 mm	Duct
ExPro-BF -150	Hygrometer	0...100%rH	150 mm	Duct
ExPro-BF -200	Hygrometer	0...100%rH	200 mm	Duct
ExPro-BTF - 50	Combination Thermostat/Hygrometer	-40 to +80 °C, 0...100%rH	50 mm	Room/Duct
ExPro-BTF -100	Combination Thermostat/Hygrometer	-40 to +125 °C, 0...100%rH	100 mm	Duct
ExPro-BTF -150	Combination Thermostat/Hygrometer	-40 to +125 °C, 0...100%rH	150 mm	Duct
ExPro-BTF -200	Combination Thermostat/Hygrometer	-40 to +125 °C, 0...100%rH	200 mm	Duct

ACCESSORIES AND SPECIAL DESIGNS



Type:	Technical specifications:
MFK	Mounting flange for duct-installation, for variable depth of immersion in the air duct
TH- VA	Probe made of stainless-steel V4A 1.4571, length 150 mm for ..Pro-BT-200. Other lengths on request
Kit-FA-VA	Sinter filter cap for humidity sensor (only up to 90 %rH)
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 ² at integrated Ex-e terminal box, stripping length 9 mm, torque 0,4...0,5 Nm, equipotential bonding 4 mm ²
Display / Control elements:	Matrix LCD, backlit, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs 3 buttons for configuration
Housing:	Aluminium die-cast housing, coated / T6 (T80 °C) at -20...+50 °C
Ambient Temperature - Humidity:	-20...+50 °C, storage temperature -35...+70°C / 0...95 % rH, non condensing
Sensor connection:	For ExPro-B... sensor only! Via plug and socket connection at front side (for room mounting) or at back side (for duct mounting). Attention: Only 1 ExPro-B... sensor per transmitter can be connected!
Measuring range:	-40...+125 °C / 0...100 % rH, non condensed
Response time of sensor:	T90 / ~ 3 s
Relay output accuracy:	Temperature: $\pm 0,1$ °C resolution + accuracy of ...Pro-B... sensor Humidity $\pm 0,05$ % resolution + accuracy of ...Pro-B... sensor
Setting range hysteresis:	+0,5...+20,0 °C (factory setting +1,0 °C) / 0,5...20,0 % rH (factory setting 5,0 % rH)
Start delay:	5 s
Stability:	Long term stability < 0,2 %/year, temperature influence < 0,02 %/K, supply voltage influence < 0,01 %
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). Power 40 W, 10 W per channel min. rating load: 10 mW / 0,1 V / 1 mA
Additional relay output (Type ...-2):	– as above
Duration of life:	Mechanical: 10×10^6 Electrical (rated load): 100×10^3
Scope of delivery:	Transmitter, 3 self-tapping screws 4,2 \times 13 mm resp. in stainless steel (with ...CT and ...VA versions)
Dimensions:	180 \times 107 \times 66 mm
Weight:	~ 950 g
Cable entries:	2 \times M16 \times 1,5 mm, Ex-e approved, for cable diameter ~ Ø 5...9 mm

