

EXCOS-D TEMPERATURE / HUMIDITY TRANSMITTER

Zones 1, 2, 21, 22

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

ATEX INSTRUMENTATION

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



EU-Type Examination Certificate

The ExCos-D... transmitter generation with directly coupled ExPro-C... sensors are 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 1, 2 (gas) and zone 21, 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 measuring ranges are scalable within the maximum ranges. The analogue output signal is either 0...10 VDC or (0)4...20 mA and can be selected on site.

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 analogue output, selectable 0...10 V / (0)4...20 mA
- Display with backlight, can be switched off
- Password locking



ExCos-D TEMPERATURE/HUMIDITY MODULE FOR ZONE 1, 2, 21, 22

Type:	Technical specifications:	Module:	ExPro sensor:	Item No.:
ExCos-D	Module to connect 1 ExPro-C... sensor for temperature and/or humidity	Zone 1, 2, 21, 22	Zone 1, 2, 21, 22	9A0501

SENSORS FOR ExCos-D AND RedCos-D TRANSMITTER

Type:	Function:	Range:	Sensor length:	Main use:
ExPro-CT - 50	Temperature sensor	-40 to +80 °C	50 mm	Room/Duct
ExPro-CT -100	Temperature sensor	-40 to +125 °C	100 mm	Duct
ExPro-CT -150	Temperature sensor	-40 to +125 °C	150 mm	Duct
ExPro-CT -200	Temperature sensor	-40 to +125 °C	200 mm	Duct
ExPro-CF - 50	Humidity sensor	0...100%rF	50 mm	Room/Duct
ExPro-CF -100	Humidity sensor	0...100%rF	100 mm	Duct
ExPro-CF -150	Humidity sensor	0...100%rF	150 mm	Duct
ExPro-CF -200	Humidity sensor	0...100%rF	200 mm	Duct
ExPro-CTF - 50	Combination temperature/humidity	-40 to +80 °C, 0...100%rH	50 mm	Room/Duct
ExPro-CTF -100	Combination temperature/humidity	-40 to +125 °C, 0...100%rH	100 mm	Duct
ExPro-CTF -150	Combination temperature/humidity	-40 to +125 °C, 0...100%rH	150 mm	Duct
ExPro-CTF -200	Combination temperature/humidity	-40 to +125 °C, 0...100%rH	200 mm	Duct

ACCESSORIES AND SPECIAL DESIGNS



Type:	Technical specifications:
Ex/RedCos-D-A	Version with two additional intrinsically safe circuit (0)4...20 mA outputs to connect external actual value indicator in Ex areas
EXC-RIA-16	Intrinsic safe actual value LCD indicator, for use in zone 1,2,21,22, connectable to ExCos-D-A or RedCos-D-A transmitter
NOC-RIA-16	Actual value LCD indicator, for use in safe area, connectable to InCos-D-A transmitter
MKR-VA/AL	Mounting bracket for installation on round air-ducts (diameter up to 600 mm)
VL3	Sensor extension cable 3 m

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TECHNICAL SPECIFICATIONS

Marking:	 II 2(1)G Ex e ma [ia Ga] IIC T6...T4 Gb  II 2(1)D Ex tb [ia Da] IIIC T80°C...T130°C Db 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 analogue in- and outputs min. 1,5 kV, 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:	2 \times 16 digits, dot-matrix display, backlit, for configuration, user guidance, parameter and actual value indication / 3 buttons for configuration
Housing:	Aluminium die-cast housing, coated. / T6 (T80 °C) a -20...+50 °C
Ambient Temperature - Humidity:	-20...+50 °C, storage temperature -35...+70 °C / 0...95 % rH, non condensing
Sensor connection:	For ExPro-C... sensor only! Via plug and socket connection at front side (for room mounting) or at back side (for duct mounting). Attention: Only 1 ExPro-C... sensor per transmitter can be connected!
Measuring ranges adjustable:	Measuring ranges are scalable within and limited by the maximum sensor measuring range
Response time of sensor:	T90 / ~ 1 s
Start delay:	5 s
Stability:	Long term stability < 0,2 %/year, temperature influence < 0,02 %/K, supply voltage influence < 0,01 %
Output:	Voltage U [V] or current I [mA] selectable via menu on site (with combi sensors not adjustable separately), protected against short circuit and external voltage up to 24 V, protected against polarity reversal
Voltage output U:	0...10 V adjustable, invertible, burden > 1 k Ω , influence < 0,05 %/100 Ω + accuracy of ...Pro-C... sensor
Current output I:	0...20 mA adjustable, invertible, burden < 500 Ω , influence < 0,1 %/100 Ω , open circuit voltage < 24 V + accuracy of ...Pro-C... sensor
Output in alarm mode:	Increasing or decreasing output signal, selectable on site, down to 0 VDC/0 mA or up to 10 VDC/20 mA
Scope of delivery:	Transmitter, 3 self-tapping screws 4,2 \times 13 mm resp. in stainless steel (with ...CT and ...VA versions)
Parameter at delivery:	Output 4...20 mA, output in alarm mode decreasing to 0 V/0 mA
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 ~ \varnothing 5...9 mm

