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DATA SHEET

RT-CO2

Produal

Distributed by AKRIBIS



RT - Room transmitter



RT transmitters are versatile room temperature and CO_2 transmitters for simple measuring applications in building automation. The transmitters can be equipped with relative humidity measurement.

The transmitters offer easy installation and adjustment, several different model options and outputs that can be configured separately for each measurement.

The transmitters are also available with Modbus RTU or BACnet MS/TP communication via the RS-485 connection.

Note: -MOD and -BAC models do not include output connectors.

You can commission devices using the MyProdual smartphone application and the MyTool Connect dongle. You can also configure some basic settings via bus in -MOD and -BAC models.

Technical specifications

Property	Value
Supply	24 Vac (22…26 V) / 24 Vdc (22…39 V), < 2 VA
Supply (models without voltage outputs)	24 Vac (22…26 V) / 24 Vdc (10…39 V), < 1.5 VA
Temperature measurement	
Range	0…50 °C
Accuracy (2σ)	±0.5 °C (at 25 °C)
Time constant	Adjustable (> 1 min)
CO_2 measurement	
Range	0…2000 ppm
Accuracy (25 °C / 50 %rH)	Typ. ±50 ppm +5 % from reading **Note:** The accuracy is achieved after the self-calibration procedure has been completed three times (three weeks).
Humidity measurement (-RH models)	
Range	0…100 %rH
Accuracy (30…75 %rH)	Typ. (2σ) ±2 %rH at 22 °C, max. (3σ) ±4.5 %rH
Outputs	

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Property	Value
Multifunctional outputs	Not available in -MOD and -BAC models.
Range	0...10 V*, 2 mA (freely scalable within this range) or digital (e.g. 0/10 Vdc)
Accuracy	±0.1 % from full scale
Communication	
Modbus (-MOD models)	
Protocol	Modbus RTU
Interface	RS-485
Bus speed	9600*/14400/19200/38400/56000/57600/76800/115200 bit/s
Data bits	8
Parity	none*/odd/even
Stop bits	1* or 2
Unit load	1/8 UL
BACnet (-BAC models)	
Protocol	BACnet MS/TP
Interface	RS-485
Bus speed	9600*/14400/19200/38400/57600/76800/115200 bit/s
Data bits	8
Parity	none*/odd/even
Stop bits	1* or 2
Unit load	1/8 UL
Wiring terminals	
Type	Tilted screw terminals
Wire	0.2...2.5 mm^2, stripping length 5 mm
Tightening torque	0.4 Nm
Commissioning tool	MyTool Connect dongle with MyProdual application GET IT ON Google Play Available on the App Store
Appliance class (IEC 60664-1)	III
Operating conditions	
Ambient temperature	0...60 °C
Ambient humidity	0...95 %rH (non-condensing)
Storage conditions	
Temperature	10...35 °C
Humidity	20...60 %rH (non-condensing)
Housing	
Protection class	IP30
Materials	ABS plastic

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Property	Value
Mounting	On the wall surface or on a flush mounting box (60 mm hole distance)
Dimensions (w x h x d)	97 x 97 x 27 mm
Warranty	5 years
CE UKCA	Refer to the EU Declaration of Conformity or the UK Declaration of Conformity for compliance information. You can find the declarations on this product's page at www.produal.com.
	* factory setting

Wiring

WARNING: Device wiring and commissioning can only be carried out by qualified professionals. Always make the device wirings in de-energised electricity network.

WARNING: External power sources and power wiring must be protected with a fuse or circuit breaker. Rating depends on the overall system load, but the maximum rating for the external circuit breaker is 16 A (limited by internal structure of the product).

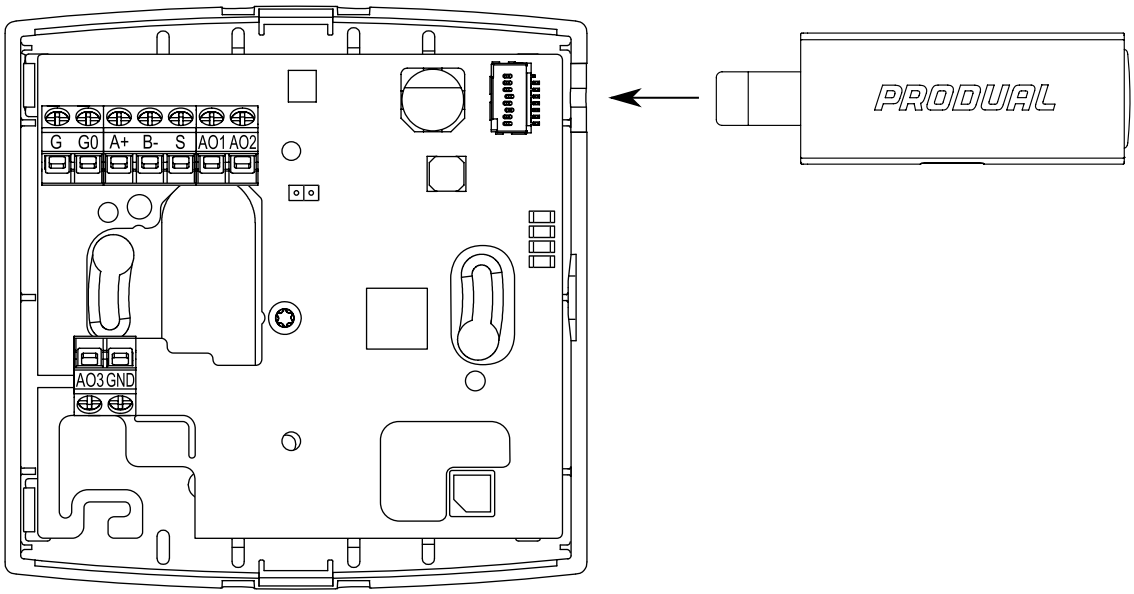
WARNING: The minimum power rating for the external power source must be 170 VA / 170 W to ensure proper operation of the internal fusing of the product in case of a failure condition. Otherwise, the overall system power consumption shall be less than 15 W also in the failure condition.

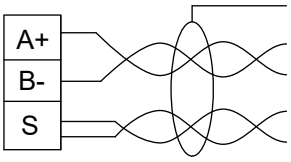
WARNING: This product is appliance class III product according to IEC 60664-1. The product may only be connected to SELV (separated extra low voltage) electricity network.

Important: This product has no capability to detect an abnormal condition of output ports. External supervising (automated/human) may be needed depending on the application where this product is used.

CAUTION: The product may only be connected to overvoltage category I, II or III electricity network according to IEC 60664-1.

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G	Supply, 24 Vac/dc, < 1 VA
G0	0 V
A+ *B-* *S*	 Modbus RTU, RS-485 (-MOD models). BACnet MS/TP, RS-485 (-BAC models). **Note:** Connector *S* can only be used for chaining the cable shield pair.
AO1	Voltage output 1, 0...10 Vdc, < 2 mA (freely scalable within this range). Not available in -MOD and -BAC models.
AO2	Voltage output 2, 0...10 Vdc, < 2 mA (freely scalable within this range). Not available in -MOD and -BAC models.
AO3	Voltage output 3, 0...10 Vdc, < 2 mA (freely scalable within this range). Not available in -MOD and -BAC models.
GND	Ground. Not available in -MOD and -BAC models.

The nominal tightening torque for wire terminal screws is 0.4 Nm.

Important: Do not use excessive force when you tighten the wiring terminal screws.

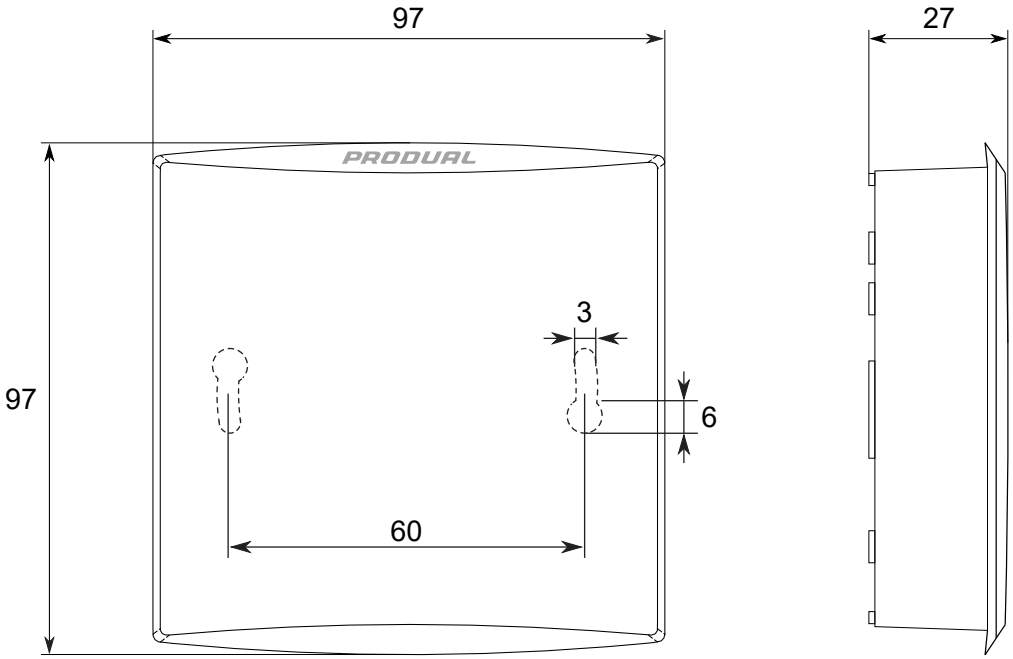
CAUTION: Ensure that all covers are closed before you connect the supply voltage to the product. Do not remove the covers when the supply voltage is connected.

Ordering information

		Type	0	1	2	3	4	5	6
0 Room transmitter			5302	2		0			0
1 Device type	Room transmitter with temperature and CO_2 measurement	RT-CO2		2					
2 Body colour	White				W				
	Black	B			B				
3 User interface	No user interface					0			
4 Additional measurements	No additional measurements						0		
	Relative humidity	-RH					H		
5 Additional functions	No additional functions							0	
	Modbus RTU	-MOD						M	
	BACnet MS/TP	-BAC						B	

Dimensions

All dimensions are in millimeters (mm).



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