



# DXT

## Duct temperature transmitter / switch

The DXT series are combined duct temperature transmitters / switches with an integrated sensor element and Modbus RTU communication. Four pre-defined ranges provide ideal measurement windows with one user-definable range. These units are equipped with Modbus RTU (RS485) communication and have an analog output and a relay output.

### Key features

- Integrated sensor
- 1 analog and 1 relay output
- Modbus RTU (RS485) communication
- Multiple ranges as measurement windows available
- Selectable switching point by trimmer or via Modbus
- Selectable hysteresis by jumpers or via Modbus
- Long-term stability and accuracy

### Technical specifications

Outputs	1 analog output (0–10 VDC / 0–20 mA) 1 C/O relay output (230 VAC / 2 A)	
Power consumption	No load: maximum 50 mA Full load: maximum 70 mA	
Load resistance	0–10 VDC mode > 500 Ω 0–20 mA mode < 500 Ω	
Sensor temperature ranges	0–30 °C 10–40 °C 20–50 °C 0–50 °C	
Sensor temperature range (Modbus selection)	0–50 °C, free selectable	
Hysteresis (jumper selection)	1 / 2 / 3 / 4 °C	
Hysteresis (Modbus selection)	1 / 2 / 3 / 4 / 5 °C	
Switching point	Selectable by trimmer or via Modbus RTU	
Protection standard	Enclosure: IP54, Probe: IP20	
Ambient conditions	Temperature	0–50 °C
	Rel. humidity	< 95 % rH (non-condensing)



### Article codes

	Supply	Connection
<b>DXT-G</b>	15–24 VAC ±10 % 18–34 VDC	3 - wire
<b>DXT-F</b>	18–34 VDC	4 - wire

### Area of use

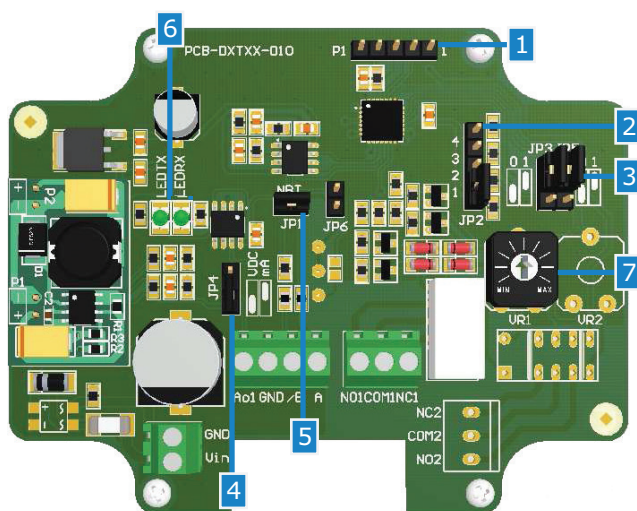
- Temperature control in duct HVAC applications

### Wiring and connections

Vin	Positive DC voltage / AC ~
GND	Ground / AC ~
A	Modbus RTU (RS485) signal A
/B	Modbus RTU (RS485) signal /B
Ao1	Analog output (0–10 VDC / 0–20 mA)
GND	Ground
NO1	Normally open contact
COM	Common contact
NC1	Normally closed contact
Connections	Cable cross section: 1,5 mm <sup>2</sup> Cable gland clamping range: 5–10 mm

**Caution:** If an external AC / DC powered unit (G - series) is using the same safety transformer as a DC powered unit (F - series), a **SHORT CIRCUIT** in the source may result when connecting 3 - wire applications (common ground)!

If an AC power supply is used with any of the units in a Modbus network, the GND terminal should **NOT BE CONNECTED** to other units on the network or via the CNVT-USB-RS485 converter. This may cause permanent damage to the communication semiconductors and / or the computer!



### Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters.

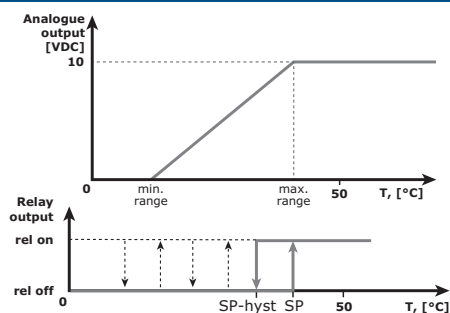
The parameters of the unit can be monitored / configured through the 3SModbus software platform. You can download it from the following link:

<https://www.sentera.eu/en/3SMCenter>



For more information about the Modbus registers, please refer to the product Modbus Register Map.

### Operational diagram(s)





## DXT

Duct temperature transmitter / switch

### Settings

1 – Modbus settings reset jumper (P1)	5 4 3 2 1	Put and hold for 20 seconds
2 – Sensor range selection JP2	1 2 3 4 5	0–30 °C
	1 2 3 4 5	10–40 °C
	1 2 3 4 5	20–50 °C
	1 2 3 4 5	0–50 °C
3 – Hysteresis selection JP3 & JP5	JP3 JP5	1 °C
	JP3 JP5	2 °C
	JP3 JP5	3 °C
	JP3 JP5	4 °C
4 – Analog output selection JP4	1 2	0–10 VDC
	2 3	0–20 mA
5 – Network bus resistor jumper NBT	1 2	The DXT is the first or the last unit
6 – Modbus communication indication		Transmitting
		Receiving
7 – Setpoint trimmer		VR1 - switching point for the relay

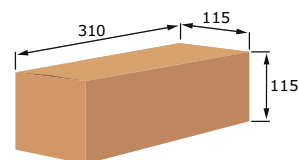
indicates the position of the jumper.)

### Standards

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC: EN 61326
- WEEE Directive 2012/19/EU
- RoHs Directive 2011/65/EU



### Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
DXT-G	Unit (1 pc.)	310	115	115	0,21 kg	0,33 kg
	Box (20 pcs.)	590	380	505	4,20 kg	7,85 kg
DXT-F	Unit (1 pc.)	310	115	115	0,21 kg	0,33 kg
	Box (20 pcs.)	590	380	505	4,20 kg	7,85 kg

### Fixing and dimensions

