

ESTxD50xM



Environmental Sensor, Temperature, Humidity, Dew Point Transmitter



Main features

- Duct mounting
- 0-10 V or 4-20 mA output
- 0 to 50°C temperature and 0 to 100% humidity
- -40 to 60°C dew point measuring range
- Compact housing and simple installation
- With Modbus communication
- Software for monitoring and configuration: EST Soft A

Applications

- Monitoring for HVAC process / air conditioning / environmental ventilation control
- Building / factory / hospital/ clean room / Lab. / storeroom

Description

High-grade sensor components for long-term stability and with an exceptional accuracy. Compact housing to measure temperature, humidity or dew point. Comes with standard Modbus for easy integration to building system and selectable 4-20 mA or 0-10 V analogue output.



References

Product selection key



EST D50 M

Enter the code entering the corresponding option instead of

Code	Option	Description
EST	-	Model
<input type="checkbox"/>	H	Humidity
	D	Dew Point
D	-	Duct mounting
50	-	Temperature range
<input type="checkbox"/>	V	Output: 0...10 V
	A	Output: 4...20 mA
M	-	communication

Type selection

Mounting	Temperature range	Output	Humidity / Dew Point	communication	Code
Duct	-40°... +100°C	0...10 V	Humidity	Modbus RS485	ESTHD50VM
Duct	-40°... +100°C	0...10 V	Dew Point	Modbus RS485	ESTDD50VM
Duct	-40°... +100°C	4...20 mA	Humidity	Modbus RS485	ESTHD50AM
Duct	-40°... +100°C	4...20 mA	Dew Point	Modbus RS485	ESTDD50AM



Features

Power Supply

Power supply	DC	8...35 V
	AC	12...30 V
Current consumption	DC	12 V: 120 mA
	DC	24 V: 60 mA
	AC	12 V: 230 mA
	AC	24 V: 140 mA

Outputs

Output	4...20 mA / 0...10V Standard RS-485 and 2 analogue outputs (1st output - Temp; 2nd output - RH or dew)
--------	---

Environmental

Ambient temperature	-20°... +60°C (-4°... +140°F)	Working - housing
	≤120°C (248°F)	Working - probe
	-25° ... +60°C (-13° ... +140°F)	Storage
Degree of protection	Body	IP65
	Probe	IP20
Electrical protection	Polarity protection and over voltage	
Humidity range	0...95% (not condensing)	

Measuring Values

Sensor type	Capacitive humidity sensor & PT 100 Ω A Class	
Suggestion working range	Temperature	-40...100°C (-40...212°F)
	Humidity	0...100% RH
	Dew Point	-40...60°C (-40...140°F)
Signal connection	3-wire	
Signal	RS485	2P terminal
Accuracy (@ +25°C)	Temperature	$\pm 0.15^{\circ}\text{C} + 0.002^{\circ}\text{C} \times t \text{ actual}$
	Humidity	$\pm 2\%$ RH
Response times (t90) (@ +25°C)	< 20 S	
Load resistance	Current output	< 500 Ω
	Voltage output	> 10 K Ω



Mechanics/electronics

Connection

Electrical connection	Cable gland
-----------------------	-------------

Wiring

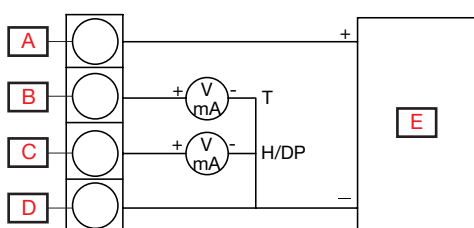


Fig. 1 Analogue output

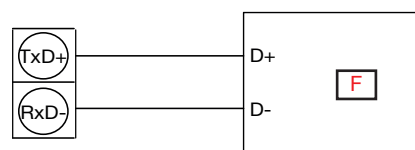


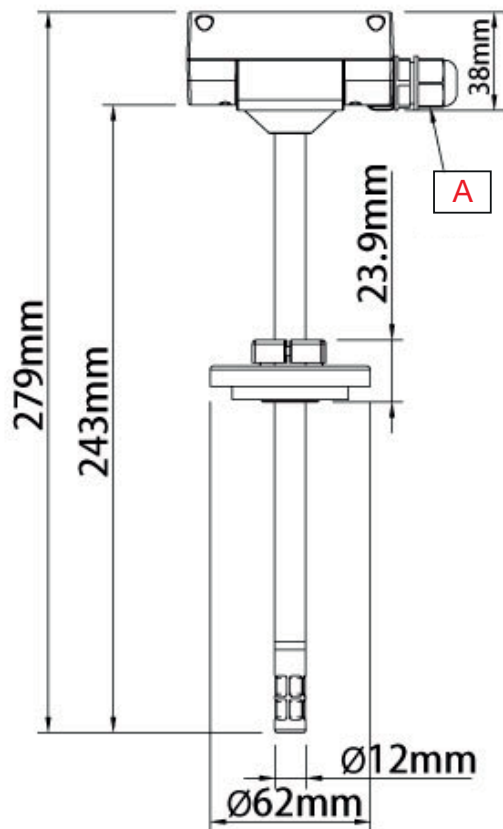
Fig. 2 RS485 Signal connector

A	V _{cc}	D	GND
B	Output 1	E	8...35 VDC and 12...30 VAC
C	Output 2	F	Host (RS485)

Housing

Housing	PC fire-proof class (PC-110)
Probe	PC fire-proof class (PC-110)
Filter	PC membrane filter
Installation	Duct mounting
Weight	164 g

Dimensions



A	M16 x 1.5 Cable gland
---	-----------------------

Compatibility and conformity

Approvals and markings

CE-marking





Delivery contents and accessories

▶ Delivery contents

Environmental sensor: ESTxD50xM

COPYRIGHT ©2016
Content subject to change.