

ESAVTx20xxx



Environmental Sensor, Air Velocity & Temperature Transmitter



Main features

- Remote or duct mounting
- 0-10 V or 4-20 mA output
- 20 m/s measuring range
- With or without display
- With or without Modbus communication
- Simple installation
- Software for monitoring and configuration: ESAV Soft

Applications

- Monitoring for HVAC process
- Environmental control and clean room
- Laminar flow control

Description

Air velocity transmitter coupled with temperature monitoring.

Comes with optional display to show air velocity and temperature as well as option to choose RS485 modbus.

Available in 0-10 V output or 4-20 mA output.



References

Product selection key

ESAVT 20

Enter the code entering the corresponding option instead of

Code	Option	Description
ESAVT	-	Model
<input type="checkbox"/>	R	Remote
	D	Duct
20	-	20 m/s range
<input type="checkbox"/>	V	Output: 0...10 V
	A	Output: 4...20 mA
<input type="checkbox"/>	D	With display
	-	Without display
<input type="checkbox"/>	M	Modbus RS485
	-	Without communication

Type selection

Mounting	Range	Output	communication	Display	Code
Remote	20 m/s	4...20 mA	Modbus RS485	No	ESAVTR20AM
Remote	20 m/s	0...10 V	Modbus RS485	No	ESAVTR20VM
Remote	20 m/s	4...20 mA	Modbus RS485	Yes	ESAVTR20ADM
Remote	20 m/s	0...10 V	Modbus RS485	Yes	ESAVTR20VDM
Remote	20 m/s	4...20 mA	-	No	ESAVTR20A
Remote	20 m/s	0...10 V	-	No	ESAVTR20V
Remote	20 m/s	4...20 mA	-	Yes	ESAVTR20AD
Remote	20 m/s	0...10 V	-	Yes	ESAVTR20VD
Duct	20 m/s	4...20 mA	Modbus RS485	No	ESAVTD20AM
Duct	20 m/s	0...10 V	Modbus RS485	No	ESAVTD20VM
Duct	20 m/s	4...20 mA	Modbus RS485	Yes	ESAVTD20ADM
Duct	20 m/s	0...10 V	Modbus RS485	Yes	ESAVTD20VDM
Duct	20 m/s	4...20 mA	-	No	ESAVTD20A
Duct	20 m/s	0...10 V	-	No	ESAVTD20V
Duct	20 m/s	4...20 mA	-	Yes	ESAVTD20AD
Duct	20 m/s	0...10 V	-	Yes	ESAVTD20VD

Features

Power Supply

Power supply	DC	8...35 V
	AC	12...30 V
Current consumption	DC	8 V: 300 mA
	DC	24 V: 100 mA
	AC	12 V: 350 mA
	AC	24 V: 180 mA
Overvoltage protection	DC	<45 V
	AC	<40 V

Outputs

2 x Output	4...20 mA / 0...10 V
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Environmental

Ambient temperature	0° ... +50°C (32° ... +122°F)	Operating
	-20° ... +60°C (-4° ... +140°F)	Storage
Degree of protection	IP54	
Electrical protection	Polarity protection, over voltage and short circuit	
Humidity	95% (not condensing)	

Measuring Values

Media measured	Air	
Measuring range	Working temperature	0...50°C (32...122°F)
Signal connection	3-wire	
Input	Air velocity	0.2...20 m/s
	Temperature	PT 1000, 0 to 50°C
Accuracy	Air velocity	±3% of F.S.
	Temperature	±0.3°C
Response times (t90)	Reach 90% of ultimate value within 3 sec.	
Load resistance	Current output	< 500 Ω
	Voltage output	> 10 KΩ
Angular dependence	3% of measuring value (when the angle < 10°)	

Mechanics/electronics

▶ Connection

Electrical connection	Screw terminal, Cable gland
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▶ Display

Display type	LCD Module with green back light. Double line character(up: velocity, down: temp.)
Display range	One decimal place
Heights of character	5.56 mm

▶ Wiring

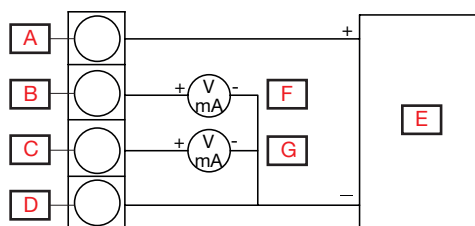


Fig. 1 Analogue output

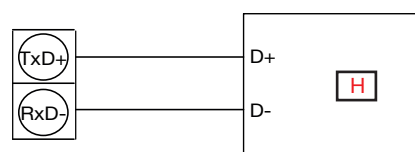


Fig. 2 RS485 Signal connector

A	V _{CC}	E	8...35 VDC and 13...30 VAC
B	Output 1	F	Velocity
C	Output 2	G	Temperature
D	GND	H	Host (RS485)

▶ Housing

Housing	PC fire-proof class (PC-110)	
Probe	PC fire-proof class (PC-110)	
Filter	POM	
Cable	PVC 2 m (remote type)	
Installation	Duct/remote mounting	
Weight	ESAVTRxx	200 g
	ESAVTDxx	147 g

Dimensions

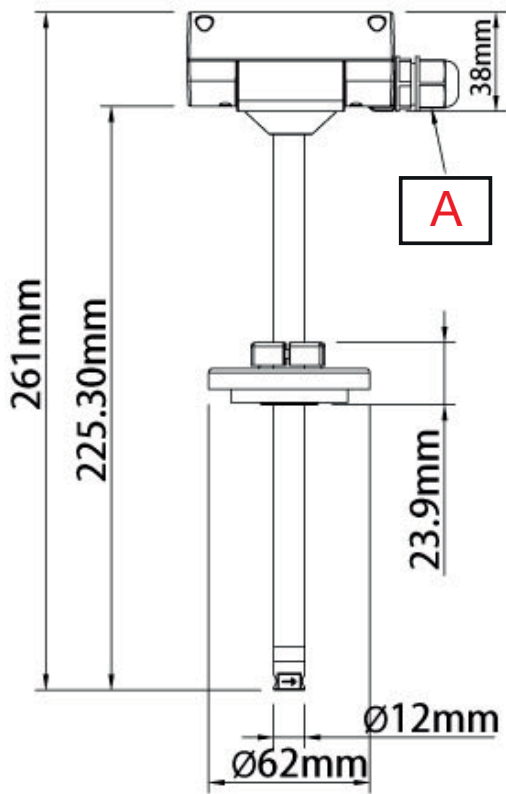


Fig. 3 Duct mounting (ESAVTD20xxx)

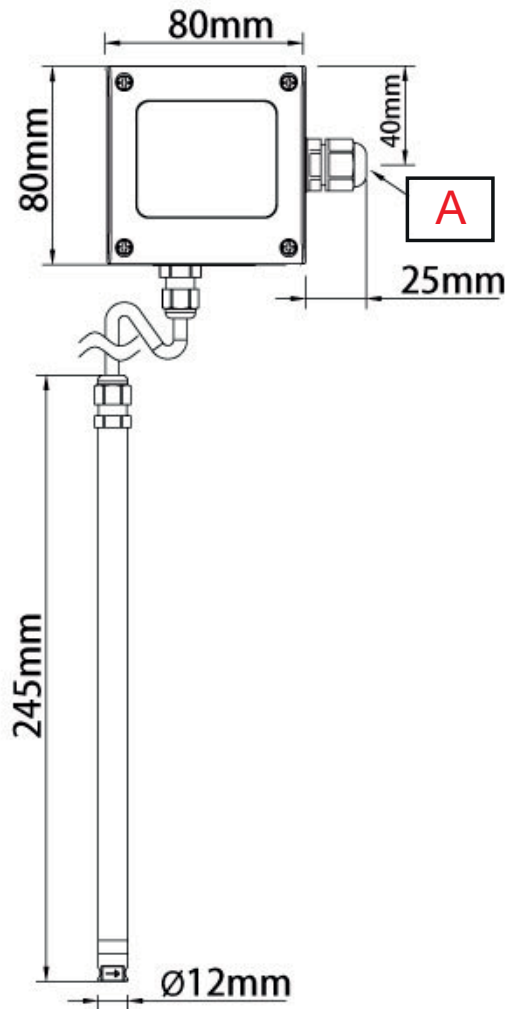


Fig. 4 Remote mounting (ESAVTR20xxx)

A	M16 x 1.5 Cable gland
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Compatibility and conformity

Approvals and markings

CE-marking	
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Delivery contents and accessories

▶ Delivery contents

Environmental sensor: ESAVTx20xxx



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