

Ventilation duct sensor

For relative humidity and temperature

Model A2G-70

WIKA data sheet TE 62.91



for further approvals
see page 4



Applications

- For measuring the relative humidity and temperature of gaseous media in ventilation and air-conditioning systems

Special features

- Electrical output signal DC 0 ... 10 V or 4 ... 20 mA
- Modbus® output signal
- Simple mounting
- Compact and robust design
- Maintenance-free



Ventilation duct sensor, model A2G-70, without LC display

Description

The model A2G-70 ventilation duct sensor is a relative humidity sensor with an integrated temperature measurement, suitable for direct mounting on circular ventilation pipes or rectangular ventilation ducts.

The adjustable mounting flange enables a quick installation. The illuminated display provides good readability, even from a distance. The model A2G-70 has a screwless cover for rapid wiring and commissioning.

The measurement of relative humidity and the air temperature as the basis of demand-orientated control/regulation is gaining ever more importance in the ventilation and air-conditioning industry. The model A2G-70 registers the relative humidity and the temperature of the air with a capacitive sensor. The sensor signals for both measurement parameters are transmitted to the control/regulation or building automation with analogue output signals (0 ... 10 V or 4 ... 20 mA) or digital Modbus® protocol.

Specifications

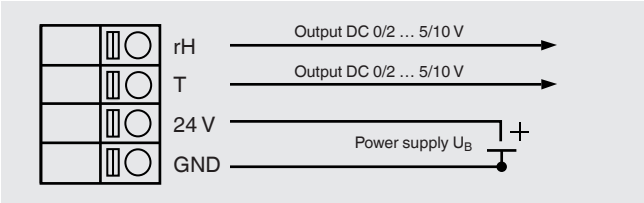
Ventilation duct sensor, model A2G-70	
Version	<ul style="list-style-type: none"> ■ Version without LC display ■ Version with LC display
Measuring range	
Temperature	0 ... 50 °C [0 ... 122 °F]
Relative humidity	0 ... 100 %
Accuracy	
Temperature	< 0.5 °C [0.9 °F]
Relative humidity	±3 % (with measuring range 0 ... 90 %)
Insertion length	183 mm [7.20 in]
Power supply U_B	AC 24 V or DC 24 V ±10 %
Power consumption	Max. 110 mA
Electrical connection	Cable gland M16 Screw terminals max. 1.5 mm ²
Output signal	<ul style="list-style-type: none"> ■ DC 0 ... 10 V, load min. 1 kΩ ■ 4 ... 20 mA, load min. 20 Ω, max. 500 Ω ■ Modbus®
Material	
Case	Plastic (ABS)
Cover	Polycarbonate
Sensor sleeve	Plastic (ABS)
Mounting flange	LLPDP
Permissible temperatures	
Operating	0 ... 50 °C [0 ... 122 °F] (at sensor)
Ambient	-20 ... +70 °C [-4 ... +158 °F]
Relative humidity	0 ... 95 %, non-condensing
Ingress protection per IEC/EN 60529	IP54
Weight	150 g
Mounting	By means of adjustable mounting flange

Modbus® version

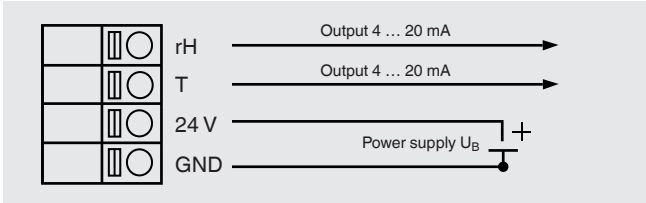
Modbus® communication	
Protocol	Modbus® via serial interface
Transfer mode	RTU
Interface	RS-485
Byte format	(11 bits) in RTU mode Coding system: 8 bits binary Bits per byte: - 1 Start bit - 8 data bits, lowest-order bit is sent first - 1 bit for parity - 1 stop bit
Baud rate	9,600, 19,200, 38,400 - selectable in the configuration
Modbus® addresses	1 ... 247 addresses selectable in the configuration menu

Electrical connection

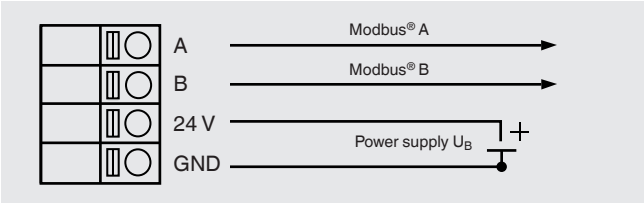
Output signal DC 0 ... 10 V



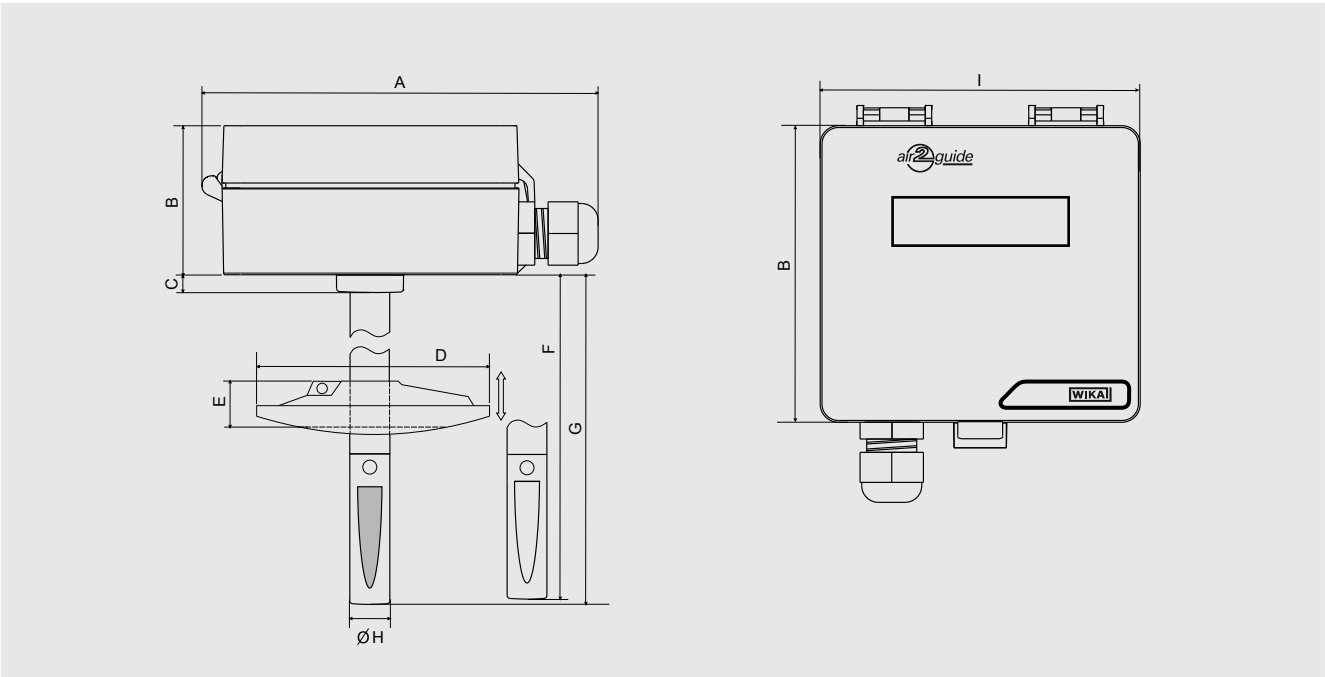
Output signal 4 ... 20 mA



Modbus® output signal







Dimensions in mm [in]



Dimensions in mm [in]									
A	B	C	D	E	F	G	Ø H	I	J
120 [4.72]	44.7 [1.76]	5.2 [0.20]	70 [2.76]	15 [0.59]	186.5 [7.34]	188.2 [7.41]	12 [0.47]	100 [3.94]	95 [3.74]

Approvals

Logo	Description	Country
	EC declaration of conformity ■ EMC directive ■ RoHS conformity ■ WEEE directive	European Union
	EAC (option) Import certificate	Eurasian Economic Community
	KazInMetr (option) Metrology, measurement technology	Kazakhstan
-	MTSCHS (option) Permission for commissioning	Kazakhstan
	Uzstandard (option) Metrology, measurement technology	Uzbekistan

Certificates (option)

- 2.2 test report

Approvals and certificates, see website

Ordering information

Model / Version / Output Signal / Options

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WIKA Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. +49 9372 132-0
Fax +49 9372 132-406
info@wika.de
www.wika.de