

# 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 ducts

#### 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 LC 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, 4 ... 20 mA) or digital Modbus® protocol.

## Specifications

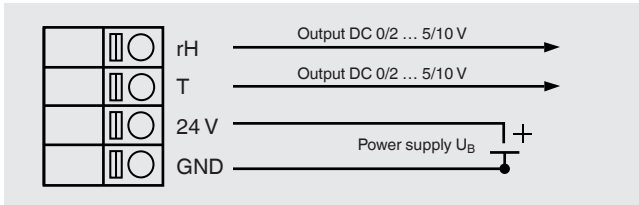
Ventilation duct sensor, model A2G-70	
<b>Version</b>	<ul style="list-style-type: none"> <li>■ Version without LC display</li> <li>■ Version with LC display</li> </ul>
<b>Measuring range</b>	
Temperature	0 ... 50 °C [ 32 ... 122 °F]
Relative humidity	0 ... 100 %
<b>Accuracy</b>	
Temperature	< 0.5 °C [0.9 °F]
Relative humidity	±3 % (with measuring range 0 ... 90 %)
<b>Power supply U<sub>B</sub></b>	AC 24 V or DC 24 V ±10 %
<b>Power consumption</b>	Max. 110 mA
<b>Electrical connection</b>	Cable gland M16 Screw terminals max. 1.5 mm <sup>2</sup>
<b>Output signal</b>	<ul style="list-style-type: none"> <li>■ DC 0 ... 10 V, load min. 1 kΩ</li> <li>■ 4 ... 20 mA, load min. 20 Ω, max. 500 Ω</li> <li>■ Modbus®</li> </ul>
<b>Material</b>	
Case	Plastic (ABS)
Cover	Polycarbonate
Sensor sleeve	Plastic (ABS)
Mounting flange	LLPDP
<b>Permissible temperatures</b>	
Operating	0 ... 50 °C [32 ... 122 °F] (at sensor)
Ambient	-20 ... +70 °C [-4 ... +158 °F]
<b>Relative humidity</b>	0 ... 95 %, non-condensing
<b>Ingress protection per IEC/EN 60529</b>	IP54
<b>Weight</b>	150 g
<b>Mounting</b>	By means of adjustable mounting flange

## Modbus® version

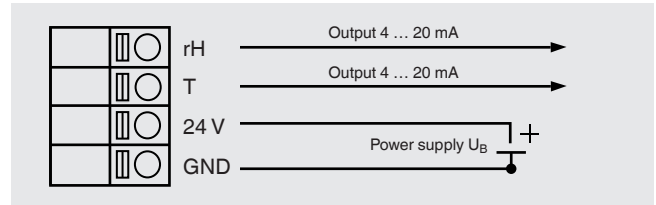
Modbus® communication	
<b>Protocol</b>	Modbus® via serial interface
<b>Transfer mode</b>	RTU
<b>Interface</b>	RS-485
<b>Byte format</b>	(11 bits) in RTU mode Coding system: 8 bits binary  Bits per byte: - 1 Start bit - 8 data bits, least significant bit is sent first - 1 bit for parity - 1 stop bit
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

## Electrical connection

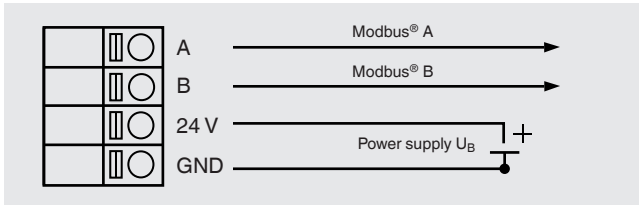
### Output signal DC 0 ... 10 V



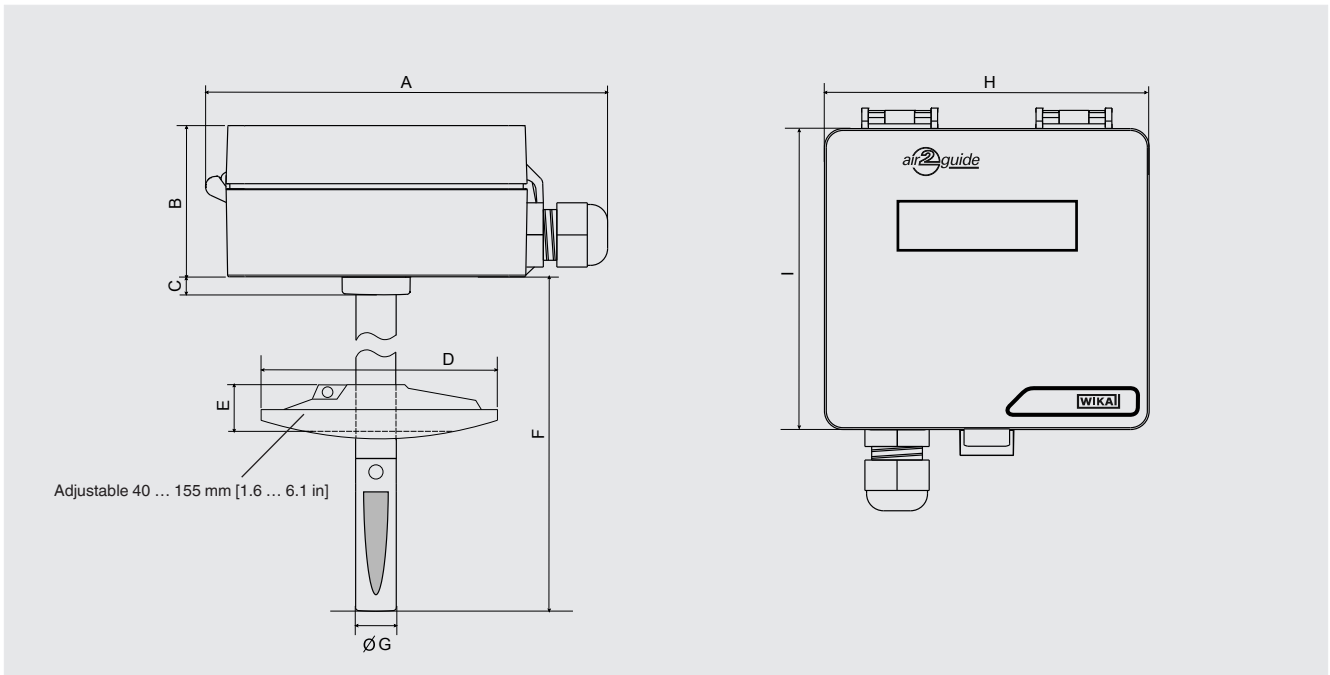
### Output signal 4 ... 20 mA



### Modbus® output signal







## Dimensions in mm [in]



### Dimensions in mm [in]

A	B	C	D	E	F	Ø G	H	I
119 [4.69]	45 [1.77]	5.2 [0.2]	70 [2.76]	15 [0.59]	188 [7.4]	12 [0.47]	95.5 [3.76]	88.5 [3.48]

## Approvals

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