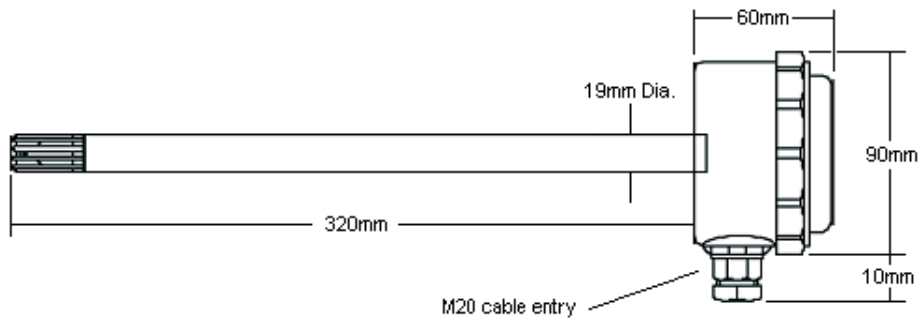


ARHC-1D

Duct Mount Humidity & Temperature Sensor 1% Accuracy



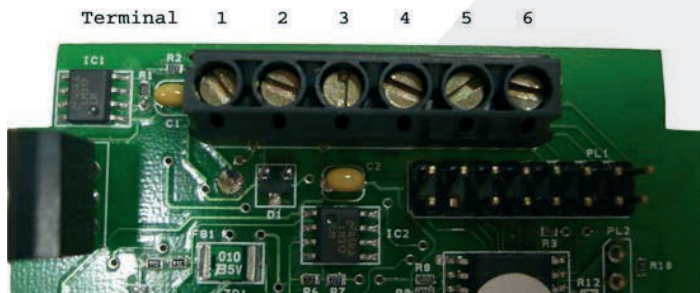
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two fixing holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.

Connection

1. Remove the circular cap on sensor head.
2. Insert cable through cable gland and connect signal wires to terminals.
3. Tighten cable gland and replace cap.

Wiring Details



Terminal Connection

1 = +24 VDC / 24 VAC
 2 = V+ RH
 3 = V+ Temp.
 4 = 0v Common
 5 = RH current loop +
 6 = Temp. current loop +
 Loop power must be applied to the RH to get temp output.
 For 0-10V outputs use pins 1-4 and for 4-20mA outputs use pins 4-6 and apply 24VDC

Sensors

Relative Humidity Sensor: Thin Film Polymer Sensor
Humidity Accuracy: + / - 1% (20%-70% RH)
Temperature Sensor: Silicon Bandgap
Temperature Accuracy: + / - 0.5°C

Outputs

Humidity: 0% RH = 4mA/0V
 100% RH = 20mA/10V
Temperature: -10°C = 4mA/0V
 70°C = 20mA/10V

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Aberdeen Office

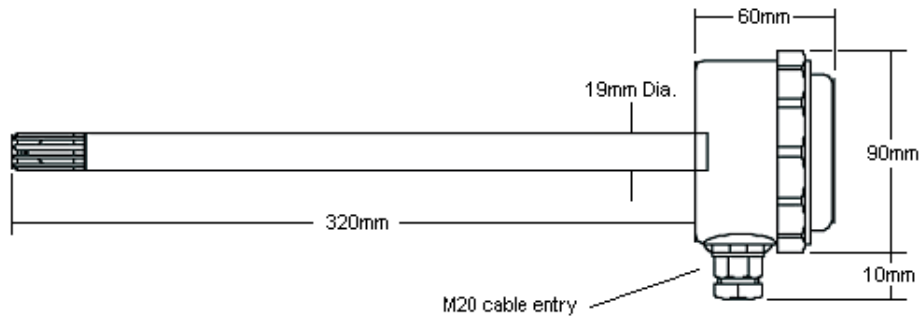
Unit 6 Airside Business Park, Kirkhill Industrial Estate,
 Dyce, Aberdeen. AB21 0GT. UK.
 Tel: +44 (0)1224 725999
 Email: ab@able.co.uk

Internet: www.able.co.uk
 e-procurement: www.247able.com
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ARHC-2D

Duct Mount Humidity & Temperature Sensor 2% Accuracy



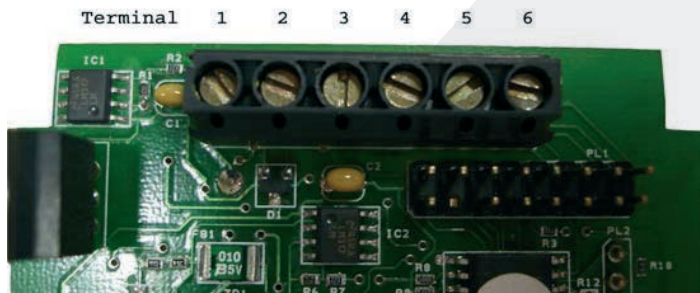
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two fixing holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.

Connection

1. Remove the circular cap on sensor head.
2. Insert cable through cable gland and connect signal wires to terminals.
3. Tighten cable gland and replace cap.

Wiring Details



Terminal Connection

- 1 = +24 VDC / 24 VAC
 - 2 = V+ RH
 - 3 = V+ Temp.
 - 4 = 0v Common
 - 5 = RH current loop +
 - 6 = Temp. current loop +
- Loop power must be applied to the RH to get temp output.
For 0-10V outputs use pins 1-4 and for 4-20mA outputs use pins 4-6 and apply 24VDC

Sensors

Relative Humidity Sensor:	Thin Film Polymer Sensor
Humidity Accuracy:	+ / - 2% (20%-70% RH)
Temperature Sensor:	Silicon Bandgap
Temperature Accuracy:	+ / - 0.5°C

Outputs

Humidity:	0% RH = 4mA/0V 100% RH = 20mA/10V
Temperature:	-10°C = 4mA/0V 70°C = 20mA/10V

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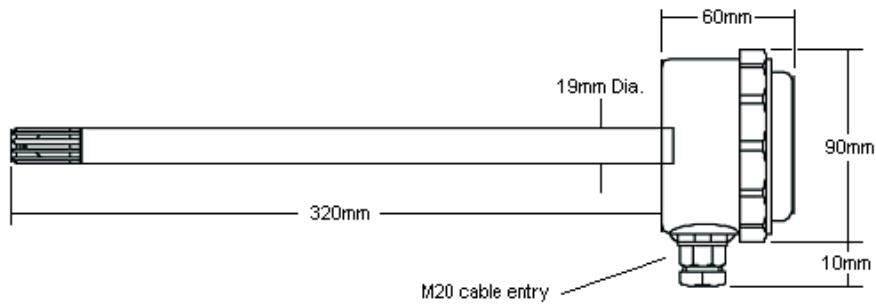
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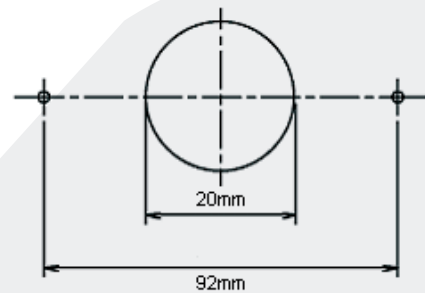
ARH-T-2-I-D

Duct Mount Humidity & Temperature Sensor



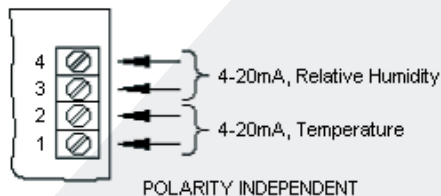
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two fixing holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.



Connection

1. Remove the circular cap on sensor head.
2. Insert cable through cable gland and connect signal wires to terminals.
3. Tighten cable gland and replace cap.



SENSORS

Relative Humidity: Polymer Capacitive
Temperature: PT100 Sensor
Humidity Accuracy: + / - 2% (20%-95% RH)
Temperature Accuracy: + / - 0.5°C

OUTPUTS

Humidity: 0% RH = 4mA
100% RH = 20mA
Temperature: -10°C = 4mA
70°C = 20mA

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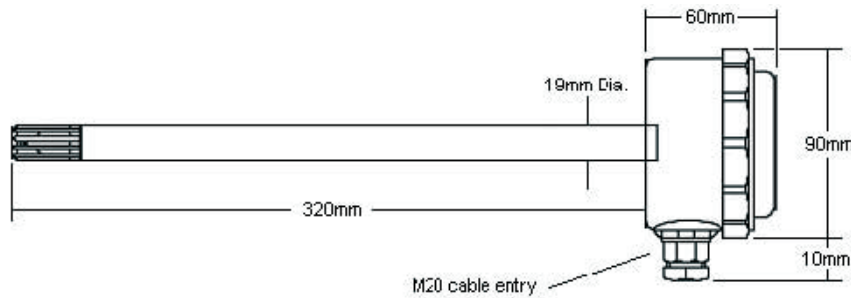
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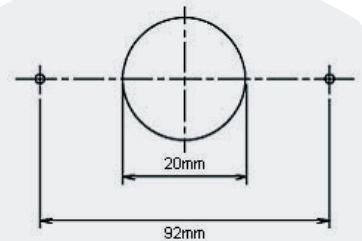
ARH-T-2-U-D

Duct Mount Humidity & Temperature Sensor 2% Accuracy



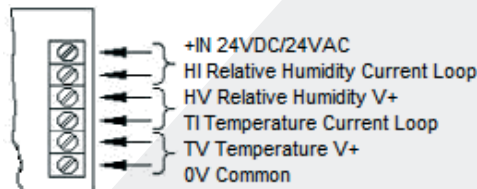
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two fixing holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.



Connection

1. Remove the circular cap on sensor head.
2. Insert cable and connect power wires to +IN and 0V, signal wires to HI or HV and 0V repeat if required for TI or TV and 0V.
3. Jumper link position: Installed on 2 pins = 4-20mA; Installed on 1 pin or removed = 0-10V
4. Tighten cable gland and replace cap.



Sensors

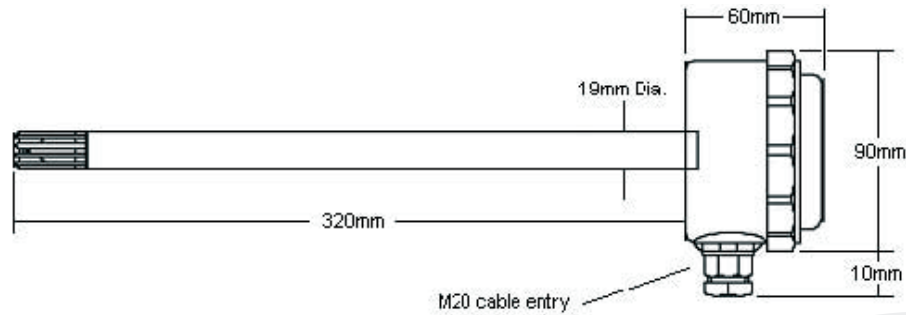
Relative Humidity:	Bulk Polymer
Temperature:	PT100 Sensor
Humidity Accuracy:	+ / - 2% (20%-95% RH)
Temperature Accuracy:	+ / - 0.5°C

Outputs

Humidity:	0% RH = 4mA/0V 100% RH = 20mA/10V
Temperature:	-10°C = 4mA/0V 70°C = 20mA/10V

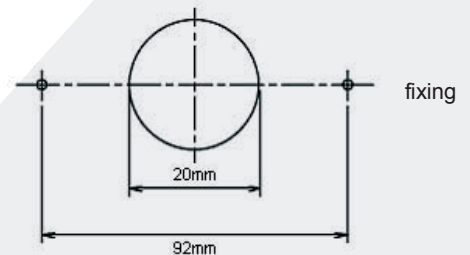
ARH-T-3-I-D

Duct Mount Humidity & Temperature Sensor 3% Accuracy



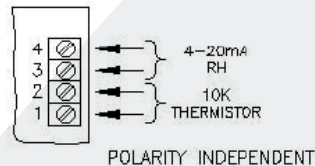
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.



Connection

1. Remove the circular cap on sensor head.
2. Insert cable through cable gland and connect signal wires to terminals.
3. Tighten cable gland and replace cap.



Sensors

Relative Humidity:	Bulk Polymer
Temperature:	10K3A1 Thermistor*
Humidity Accuracy:	+ / - 3% (20%-95% RH)
Temperature Accuracy:	+ / - 0.5oC

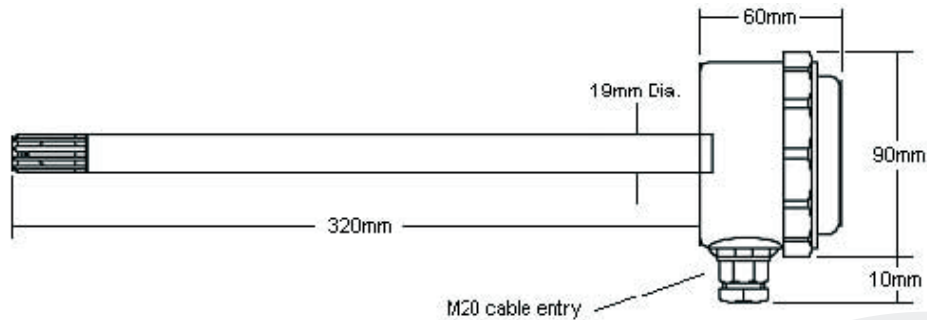
* Others available.

Outputs

Humidity:	0% RH = 4mA 100% RH = 20mA
Temperature:	10 KΩ Thermistor

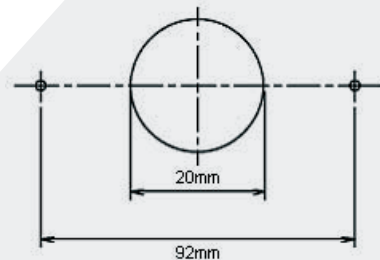
ARH-T-3-U-D

Duct Mount Humidity & Temperature Sensor 3% Accuracy



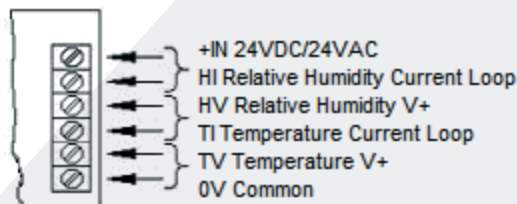
Installation

1. Choose an accessible location where the sensor element will lie in the airstream to be measured.
2. Drill a 20mm diameter hole in duct and use enclosure to mark position of two fixing holes (92mm fixing centres)
3. Drill 2 x 4.6mm diameter holes and fix enclosure with No. 6 x 20mm screws.



Connection

1. Remove the circular cap on sensor head.
2. Insert cable through cable gland and connect signal wires to terminals.
3. Jumper link position: Installed on 2 pins = 4-20mA; Installed on 1 pin or removed = 0-10V
4. Tighten cable gland and replace cap.



Sensors

Relative Humidity:	Bulk Polymer
Temperature:	10K3A1 Thermistor*
Humidity Accuracy:	+ / - 3% (20%-95% RH)
Temperature Accuracy:	+ / - 0.5oC

Outputs

Humidity:	0% RH = 4mA/0V 100% RH = 20mA/10V
Temperature:	-10oC = 4mA/0V +70oC = 20mA/10V

*Others available