

# DMW19 Wall Mount Dewpoint Transmitter for Indoor Applications



## Features/Benefits

- Designed for demanding building automation applications and other wall mount indoor applications where dewpoint measurement is needed
- Dewpoint measurement range  $-20...+55^{\circ}\text{C T}_d$  ( $-4...+131^{\circ}\text{F T}_d$ )
- Accuracy  $\pm 2^{\circ}\text{C T}_d$
- Vaisala HUMICAP® Sensor for excellent accuracy and long-term stability, negligible hysteresis and resistance to dust and most chemicals.
- Electronic, on site, one-point field check with Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM70

*Vaisala HUMICAP® Dewpoint Transmitter DMW19 is a compact wall mount dewpoint transmitter.*

The wall mount Vaisala HUMICAP® Dewpoint Transmitter DMW19 is designed for use in air conditioning and other indoor wall mount applications where accurate and stable dewpoint measurement is required. DMW19 is an ideal choice for demanding building automation applications where dewpoint is the preferred parameter for humidity measurement.

### Proven Vaisala HUMICAP® Sensor Technology

The operation of DMW19 is based on Vaisala HUMICAP® Sensor. The dewpoint is calculated from relative humidity and temperature. The patented Vaisala HUMICAP® Sensor is insensitive to dust, particulate dirt and most chemicals. This results in high accuracy, excellent long-term stability and negligible hysteresis.

### Easy to install

DMW19 is compact and lightweight. In addition, DMW19 is easy to install and it is suitable for different junction boxes.

### Fast, on-site field check

The accuracy of the transmitter is simple to check on-site using the Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM70.

Customized calibration and maintenance contracts for the DMW19 are available on request.



*DMW19 is suitable for demanding building automation and other wall mount indoor dewpoint measurements.*

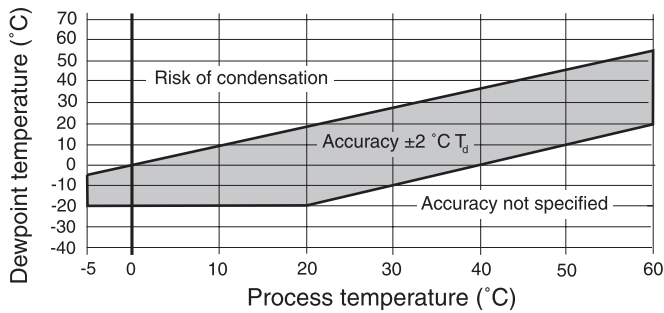
*The Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM70 is an easy and fast way to confirm the performance of DMW19 on site.*



# Technical Data

## Dewpoint temperature

|                   |  |
|-------------------|--|
| Measurement range | -20...+55 °C (-4...+131 °F)              |
| Accuracy          | ±2 °C (±3.6 °F)<br>(See the graph below) |



|                    |                            |
|--------------------|----------------------------|
| Response time      | 15 s                       |
| Humidity sensor    | Vaisala HUMICAP® 180       |
| Temperature sensor | Pt 100 IEC 751 1/3 class B |

## Operating environment

|                       |                                     |
|-----------------------|-------------------------------------|
| Operating temperature | -5...+60 °C (+23...+140 °F)         |
| Storage temperature   | -40...+80 °C (-40...+176 °F)        |
| Relative humidity     | 0...95 %RH<br>operating and storage |

## Outputs

|                                |                                 |
|--------------------------------|---------------------------------|
| Analog output (scalable)       | 4...20 mA<br>0...1 V<br>0...5 V |
| Resolution for current output  | 0.002 mA                        |
| Resolution for voltage output  | 0.3 mV                          |
| Typical temperature dependence | 0.005% of span/°C               |

## General

|                                       |   |
|---------------------------------------|---|
| Operation voltage with voltage output | 12...35 VDC<br>11...28 VAC  |
| Operation voltage with current output | 20...35 VDC / 19...28 VAC with RL500 ohm<br>17...35 VDC / 16...28 VAC with RL50 ohm |
| Supply current                        | 10 mA + load current  |
| Load for voltage output               | min. 10 kohm  |
| Load for current output               | max. 500 ohm  |
| Connections                           | screw terminals 0.5...1.5 mm <sup>2</sup>   |
| Housing                               | ABS plastics  |
| Housing classification                | IP33  |
| Weight                                | 110 g   |

## Options and Accessories

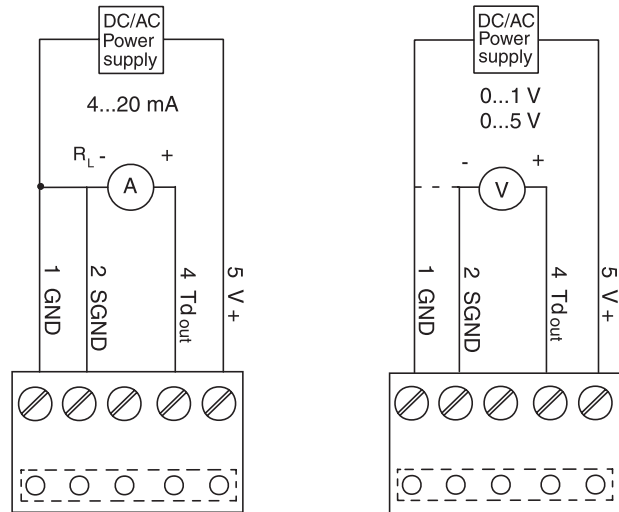
|                           |   |
|---------------------------|---|
| For field check           | HM70 hand-held humidity and temperature meter |
| Connection cable for HM70 | 211917ZZ                                      |

## Electromagnetic compatibility

Complies with EMC standard EN61326-1:1997 + Am1:1998 + Am2:2001; Generic Environment.

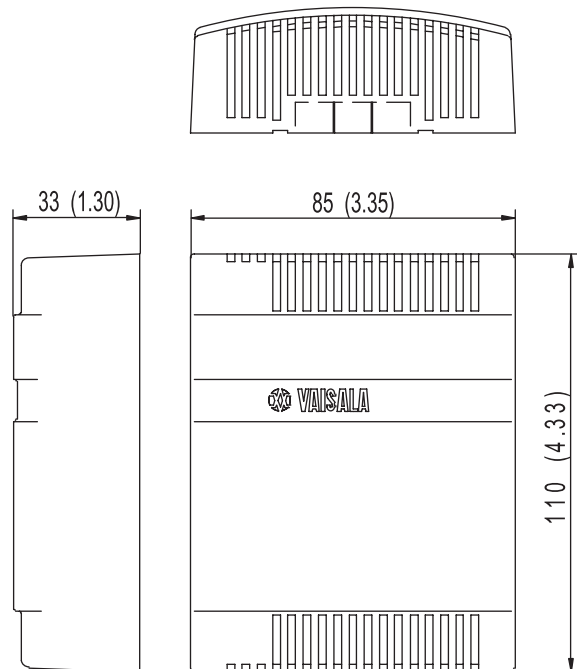
## Wiring

|                        |                         |                            |
|------------------------|-------------------------|----------------------------|
| R <sub>L</sub> 50 Ohm: | R <sub>L</sub> 500 Ohm: | R <sub>L min</sub> 10 kohm |
| 17-35 VDC              | 20-35 VDC               | 12-35 VDC                  |
| 16-28 VDC              | 19-28 VAC               | 11-28 VAC                  |



## Dimensions

Dimensions in mm.



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