The room humidity sensor BO-FK-120-J is used in offices and computer rooms to measure the relative air humidity. Other fields of application for BO-FK-120J are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

**Specification**
- Room humidity sensor
- Capacitive measuring element
- Installation-friendly housing made of impact-resistant plastic, light grey
- To be used up to 60 °C

**Technical data**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring element</td>
<td>capacitive</td>
</tr>
<tr>
<td>Work range</td>
<td>10...95 %RH</td>
</tr>
<tr>
<td>Measuring accuracy</td>
<td>± 3.5 %RH</td>
</tr>
<tr>
<td>Temperature</td>
<td>± 0.05 %RH/K</td>
</tr>
<tr>
<td>Output</td>
<td>0... 10 V</td>
</tr>
<tr>
<td>Auto-consumption</td>
<td>15 mA</td>
</tr>
<tr>
<td>Load resistance</td>
<td>≥ 10 kΩ</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Physical Dimensions</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in dimensions housing</td>
<td>70 x 115 x 43 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.2 kg</td>
</tr>
</tbody>
</table>

**Conditions of use**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>15...24 VDC</td>
</tr>
<tr>
<td>Max. operating temperature</td>
<td>24 VAC</td>
</tr>
<tr>
<td>Protection class</td>
<td>-10...+60 °C</td>
</tr>
<tr>
<td>Measuring medium</td>
<td>air, pressureless, non-aggressive, non-condensing</td>
</tr>
<tr>
<td>Max. air speed</td>
<td>15 m/s</td>
</tr>
</tbody>
</table>

**Scope of delivery**

- BO-FK-120J room humidity sensor

**Product specification**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>AIRWIN®</td>
</tr>
<tr>
<td>Type</td>
<td>BO-FK-120J</td>
</tr>
<tr>
<td>Item no.</td>
<td>6100098</td>
</tr>
</tbody>
</table>
The room humidity sensor BO-FWL is especially suitable for applications in the ventilation and air-conditioning industry. It can be mounted directly on the wall.

**Specification**
- Room humidity sensor
- Assembly-friendly housing made of ABC, light grey
- To be used up to 60 °C

**Technical data**
- Measuring element: capacitive
- Measuring range: 0... 100 %RH
- Work range: 15... 90 %RH
- Measurement uncertainty:
  - at 40…60 %RH: ± 3 %RH
  - at < 40 or > 60 %RH: ± 5 %RH
- Influence of temperature:
  - at 40…60 %RH: ± 0.2 %RH/K
  - at < 40 or > 60 %RH: ± 5 %RH/K
- Output: 0... 10 V
- Auto-consumption: < 6 mA
- Load resistance: ≥ 10 kΩ

**Dimensions**
- Built-in dimensions –
  - Height x width x depth: 75 x 75 x 27 mm
  - Weight: 0.08 kg

**Conditions of use**
- Supply voltage: 15...30 VDC
- Operating temperature: - 20..+60 °C
- Protection class: IP20
- Measuring medium: air, pressureless, non-aggressive

**Scope of delivery**
- BO-FWL room humidity sensor

**Product specification**
- Brand: AIRWIN®
- Type: BO-FWL
- Item no.: 6100106
The room humidity sensor BO-LIF is especially suitable for applications in the ventilation and air-conditioning industry. It can be mounted directly on the wall.

**Specification**
- Room humidity sensor
- Calibrated sensor chip
- Installation-friendly housing from ABC, white
- To be used up to 60 °C

**Technical data**

<table>
<thead>
<tr>
<th>Measuring element</th>
<th>calibrated sensor chip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output area</td>
<td>0... 100 %RH</td>
</tr>
<tr>
<td>Measuring accuracy</td>
<td></td>
</tr>
<tr>
<td>at 30…80 %RH</td>
<td>± 3 %RH</td>
</tr>
<tr>
<td>at &lt; 30 or &gt; 80 %RH</td>
<td>± 5 %RH</td>
</tr>
<tr>
<td>Influence of temperature at &lt;10 °C or &gt;40°C</td>
<td>± 0.06 %RH/K</td>
</tr>
<tr>
<td>Output</td>
<td>0... 10 V</td>
</tr>
<tr>
<td>Auto-consumption</td>
<td>&lt;1 mA</td>
</tr>
<tr>
<td>Load resistance</td>
<td>≥ 10 kΩ</td>
</tr>
</tbody>
</table>

**Dimensions**

- Built-in dimensions
  - Height x width x depth: 81 x 81 x 26 mm
  - Weight: 0.1 kg

**Conditions of use**

- Supply voltage: 12... 30 VDC
- Operating temperature: -20... +60 °C
- Protection class: IP30
- Measuring medium: air, pressureless, non-aggressive, non-condensing

**Scope of delivery**
- BO-LIF room humidity sensor

**Product specification**

<table>
<thead>
<tr>
<th>Brand</th>
<th>AIRWIN®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>BO-LIF</td>
</tr>
<tr>
<td>Item no.</td>
<td>6100107</td>
</tr>
</tbody>
</table>
The room humidity and temperature sensor BO-DIK is used in offices and computer rooms for the measurement of the relative air humidity depending on the temperature. Other fields of application for BO-DIK are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

**Specification**
- Room humidity and temperature sensor with display
- Dynamic humidity sensor element
- Calibrated module for the measurement of temperature and humidity
- Integrated measuring chamber
- Installation-friendly housing made of ABS, colour RAL 9003 (signal white)
- To be used up to 50°C
- Digital display: 2 lines, 3 digits + 1 decimal place, display approx. 21 mm x 40 mm, digit height ca. 8 mm

**Technical data**

<table>
<thead>
<tr>
<th>Humidity</th>
<th>Measuring element</th>
<th>capacitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output range</td>
<td>0...100</td>
<td>%RH</td>
</tr>
<tr>
<td>Measuring accuracy</td>
<td>at 10...40 %RH</td>
<td>± 3</td>
</tr>
<tr>
<td></td>
<td>at 40...60 %RH</td>
<td>± 2.5</td>
</tr>
<tr>
<td></td>
<td>at 60...90 %RH</td>
<td>± 3</td>
</tr>
<tr>
<td>Influence on temperature at 23 °C</td>
<td>± 0.05</td>
<td>%RH/K</td>
</tr>
</tbody>
</table>

| Temperature | Measuring element | PTC thermistor |
| Measurement accuracy | at 10...40 °C | ± 0.25 | K |
| | Influence on temperature < 10 or > 40 °C | ± 0.01 | K/K |
| Output | 2 x 0...10 | V |
| Auto-consumption | 7 | mA |
| Load resistance | ≥ 10 | kΩ |

| Dimensions | Installation dimensions |
| height x width x depth | 81 x 81 x 28 | mm |
| Weight | 0.07 | kg |

| Conditions of use | Supply voltage |
| 15...30 | VDC |
| 13...26 | VAC |
| Operating temperature | 0... +50 | °C |
| Protection class | IP30D |
| Measuring medium | air, pressure less, non-aggressive |

**Scope of delivery**
- BO-DIK room humidity and temperature sensor with display

**Product specification**
- Brand | AIRWIN®
- Model | BO-DIK
- Item no. | 6100110
The BO-DWF room humidity sensor is used in offices and computer rooms to measure the relative air humidity. Other fields of application for BO-DWF are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

**Specification**
- Room humidity sensor
- Dynamic measuring element
- Output for all hx sizes possible
- Calibrated module for humidity measurement
- On-site adjustment
- Installation-friendly housing made of impact-resistant plastic, light grey
- To be used up to 80 °C

**Technical data**
- Measuring element: capacitive
- Output range: 0... 100 %RH
- Measuring accuracy:
  - at 10...90 %RH: ± 2 %RH
  - at <10 or > 90 %RH: ± 2.5 %RH
- Influence of temperature at <10 °C or >40°C: ± 0.05 %RH/K
- Output: 1 x 0... 10 V
- Auto-consumption: 7 mA
- Load resistance: ≥ 10 kΩ

**Dimensions**
- Built-in dimensions of housing – Height x width x depth: 133 x 83 x 40 mm
- Weight: 0.14 kg

**Conditions of use**
- Supply voltage: 15... 30 VDC
  - 13... 26 VAC
- Operating temperature: -30... +80 °C
- Protection class housing: IP65
- Protection class measuring head: IP30
- Measuring medium: air, pressureless, non-aggressive
- Min. air speed: ≥ 0.5 m/s
- Max. air speed: 10 m/s

**Scope of delivery**
- BO-DWF room humidity sensor

**Product specification**
- Brand: AIRWIN®
- Model: BO-DWF
- Item no.: 6100109
The duct humidity sensor BO-FK-80-J is used in air conditioning systems and climate cabinets to measure the relative air humidity. Other fields of application for BO-FK-80-J are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

**Specification**
- Duct humidity sensor
- Capacitive measuring element
- Voltage output 0... 10 VDC
- Assembly-friendly housing made of ABS, light grey
- To be used up to 60 °C

**Technical data**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring element</td>
<td>capacitive</td>
</tr>
<tr>
<td>Measuring range</td>
<td>0... 100 %RH</td>
</tr>
<tr>
<td>Work range</td>
<td>5... 95 %RH</td>
</tr>
<tr>
<td>Measuring accuracy</td>
<td>± 2 %RH</td>
</tr>
<tr>
<td>at 40...60 %RH</td>
<td>± 2.5 %RH</td>
</tr>
<tr>
<td>at &lt; 40 or &gt; 60 %RH</td>
<td>&lt;0.15 %RH/K</td>
</tr>
<tr>
<td>Output</td>
<td>0... 10 V</td>
</tr>
<tr>
<td>Auto-consumption</td>
<td>&lt; 5 mA</td>
</tr>
<tr>
<td>Load resistance</td>
<td>≥ 10 kΩ</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in dimensions housing</td>
<td>120 x 80 x 48 mm</td>
</tr>
<tr>
<td>Height x width x depth</td>
<td>120 x 80 x 48 mm</td>
</tr>
<tr>
<td>Sensor length</td>
<td>200 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.3 kg</td>
</tr>
</tbody>
</table>

**Conditions of use**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>15... 30 VDC</td>
</tr>
<tr>
<td>Max. operating temperature sensor</td>
<td>-40...+80 °C</td>
</tr>
<tr>
<td>Max. usage temperature housing</td>
<td>-10...+60 °C</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP64</td>
</tr>
<tr>
<td>Measuring medium</td>
<td>air, pressureless, non-aggressive</td>
</tr>
<tr>
<td>Max. air speed</td>
<td>15 m/s</td>
</tr>
</tbody>
</table>

**Scope of delivery**
- BO-FK-80J duct humidity sensor

**Product specification**

<table>
<thead>
<tr>
<th>Brand</th>
<th>AIRWIN®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>BO-FK-80J</td>
</tr>
<tr>
<td>Item no.</td>
<td>6100099</td>
</tr>
</tbody>
</table>
The duct humidity sensor BO-DKF is used in air conditioning systems and climate cabinets to measure the relative air humidity. Other fields of application for BO-DKF are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

**Specification**
- Duct humidity sensor
- Dynamic humidity sensor element
- Output for all hx sizes possible
- Calibrated module for humidity measurement
- On-site adjustment
- Assembly-friendly housing made of PC
- To be used up to 80°C

**Technical data**
- Measuring element: capacitive
- Output range: 0... 100 %RH
- Measuring accuracy:
  - at 10...90 %RH: ± 2 %RH
  - at < 10 or > 90 %RH: ± 2.5 %RH
- Influence of temperature <10 °C or >40°C: ± 0.05 %RH/K
- Output: 1 x 0... 10 V
- Auto-consumption: 7 mA
- Load resistance: ≥ 10 kΩ

**Dimensions**
- Built in dimensions of housing – Height x width x depth: 83 x 83 x 40 mm
- Sensor pipe length: 220 mm
- Weight: 0.16 kg

**Conditions of use**
- Supply voltage: 15... 30 VDC
- 13... 26 VAC
- Operating temperature: -40... +80 °C
- Protection class housing: IP65
- Protection class measuring head: IP30
- Measuring medium: air, pressureless, non-aggressive
- Min. air speed: 0.5 m/s
- Max. air speed: 10 m/s

**Scope of delivery**
- BO-DKF duct humidity sensor

**Product specification**
- Brand: AIRWIN®
- Model: BO-DKF
- Item no.: 6100112
The duct humidity and temperature sensor BO-DKK with display is used in air conditioning systems and climate cabinets to measure the relative room humidity depending on the temperature. Other fields of application for BO-DKK are the storage of food and beverages, cold stores for fruit and vegetables, greenhouses in horticulture, the textile, paper and printing industry, the film industry and hospitals.

### Specification
- Duct humidity and temperature sensor with display
- Dynamic humidity sensor element
- Output for all hx sizes possible
- Calibrated module for humidity and temperature measurement
- On-site adjustment
- Assembly-friendly housing made of PC
- To be used up to 80 °C
- Digital display: 2 lines, 3 digits + 1 decimal place, display approx. 21 mm x 40 mm, digit height ca. 8 mm

### Technical data
#### Humidity
- **Measurement element**: capacitive
- **Output area**: 0... 100 %RH
- **Measuring accuracy**:
  - at 10...90 %RH: ± 2 %RH
  - at <10 or >90 %RH: ± 2.5 %RH
- **Influence of temperature at <10 °C or >40 °C**: ± 0.05 %RH/K

#### Temperature
- **Measuring element**: PTC thermistor
- **Measuring accuracy at 10...40 °C**: ± 0.25 K
- **Influence of temperature < 10 or > 40 °C**: ± 0.01 K/K
- **Output**: 2 x 0... 10 V
- **Auto-consumption**: 7 mA
- **Load resistance**: ≥ 10 kΩ

#### Dimensions
- **Built-in dimensions of housing – Height x width x depth**: 83 x 83 x 40 mm
- **Sensor pipe length**: 220 mm
- **Weight**: 0.17 kg

#### Conditions of use
- **Supply voltage**: 15... 30 VDC
  13... 26 VAC
- **Operating temperature**: -30... +80 °C
- **Protection class housing**: IP65
- **Protection class measuring head**: IP30
- **Measuring medium**: air, pressureless, non-aggressive
- **Min. air speed**: 0.5 m/s
- **Max. air speed**: 10 m/s

#### Scope of delivery
- BO-DKK duct humidity and temperature sensor with display

### Product specification
- **Brand**: AIRWIN®
- **Model**: BO-DKK
- **Artikel-Nr.**: 6100111