DETECT RH
Relative humidity sensor

QUICK FACTS
○ Available in wall and duct mounted versions
○ Factory calibrated on delivery
○ Accuracy, higher than 5 % above the measurement range
○ Outer casing with white front surface
○ Measurement range wall mounted: 0-95 % RH
○ Measurement range duct mounted: 10-95 % RH

GENERAL
DETECT RH is an electronic humidity sensor of a capacitive type for use in Swegon’s WISE system, such as showers and changing rooms. The room is ventilated until the moisture content falls below the minimum limit, whereby odours and formation of mould is minimised.
Technical description

Design
- DETECT RH (Relative Humidity) is a humidity sensor of a capacitive type, which actively measures the relative humidity in the room.
- DETECT RH is available in two designs:
  – DETECT RH W (Wall) for wall mounting.
  – DETECT RH D (Duct) for duct mounting.
- The measurement range for each design is adapted to the intended application area, see the electrical data table.
- The humidity sensor is made by Regin.

Materials and surface treatment
- All parts are made of PVC-free plastic; mainly PC plastic is used.
- The front of the outer case is finished in white while the rear is finished in light grey.

Maintenance
- Dirty products must be cleaned by wiping with a cloth to remove dust.

Declarations
- The product is CE marked.
  The CE declaration and the building materials declaration can be downloaded from www.swegon.com.

Project planning
- The humidity sensor can be used to ventilate damp areas such as showers and changing rooms.
- The air flow is kept boosted until the moisture content falls below the set lower limit. The recommended limit is 60%.
- It is important that the sensor is placed in the room so that the air circulation through the sensor is maintained.
- The wall sensor may not be mounted directly in the shower as it has an enclosure rating of IP30.

Installation
DETECT RH can be installed in an optional position in the room where the air circulation ensures that a representative humidity level can be detected.

Connections

DETECT RH D

24V AC (G)

24V AC (G0)

0-10V RH%

DETECT RH W

24V AC (G)

24V AC (G0)

0-10V RH%

Figure 1. Wiring diagram.

Electrical data

Supply voltage 24 V AC ± 20%
Power consumption 0.5 VA
Ambient temperature: -20 to +50°C

Degree of protection
DETECT RH W (wall) IP 30
DETECT RH D (duct) IP 65

Work/measurement range
Wall mounted version 10-90% RH
Duct mounted version 10-90% RH
Accuracy within 10-90% RH at 20°C ±3%
Calibration point 50 % RH
Output signal 0-10 V DC
### Dimensions and weights

#### Wall mounted version

<table>
<thead>
<tr>
<th>Product</th>
<th>Dimensions (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETECT RH W</td>
<td>85 100 30</td>
<td>100</td>
</tr>
</tbody>
</table>

**Figure 2. Dimensions, DETECT RH W (wall mounted).**

#### Duct mounted version

<table>
<thead>
<tr>
<th>Product</th>
<th>Dimensions (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETECT RH D</td>
<td>12 38 235 273 32 100 80</td>
<td>250</td>
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</table>

**Figure 3. Dimensions, DETECT RH D (duct mounted) with the supplied bracket (1). The bracket is adjustable to fit different duct dimensions and any insulation, minimum duct dimension is 160 mm.**

### Specification

#### Product

<table>
<thead>
<tr>
<th>Moisture sensor</th>
<th>DETECT RH</th>
<th>a</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>W (wall)</td>
<td>D (duct)</td>
<td></td>
</tr>
</tbody>
</table>

#### Specification text

Example of a specification text according to VVS AMA.

**GO XX**

Swegon’s electronic relative humidity sensor type DETECT RH, which is included in Swegon’s demand controlled ventilation system with the following functions:

- Relative humidity measurement between 10-90% RH
- Measurement accuracy at least ±3 %

**Type:** DETECT RHa W xx items