### Vaisala HUMICAP® Humidity and Temperature Module HMM170

#### Parameter and scaling

When warmed probe is enabled, only dew/frost point (Td/f) output is possible. This prevents erroneous RH and T outputs. Probe warming can be manually set on/off afterwards.

- **Customer Free Scale**
  - **T** (between -80...+100 °C, metric)
  - **T** (between -100...+200 °C, metric)
  - **Td/f** (between -120...+212 °F, non-metric)
  - **Td/f** (between -148...392 °F, non-metric)

- **For moisture in oil**
  - Water activity (aw)
  - Relative saturation (% RS)
  - Mineral transformer oil only

#### Output signals

<table>
<thead>
<tr>
<th>Channel</th>
<th>Signal Type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS485 digital output only (Modbus RTU / RS485 in use)</td>
<td>A A A</td>
</tr>
<tr>
<td>2</td>
<td>Digital output always</td>
<td>A A A</td>
</tr>
<tr>
<td>3</td>
<td>analog outputs can always be activated and reconfigured afterwards</td>
<td>A A A</td>
</tr>
<tr>
<td>4</td>
<td>Dewpoint/frostpoint (Td/f) output</td>
<td>A A A</td>
</tr>
<tr>
<td></td>
<td>Relative Humidity (RH)</td>
<td>A A A</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>A A A</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>A A A</td>
</tr>
<tr>
<td></td>
<td>Relative saturation (% RS)</td>
<td>A A A</td>
</tr>
<tr>
<td></td>
<td>Mineral transformer oil only</td>
<td>A A A</td>
</tr>
</tbody>
</table>

#### Probe type and cable length

- Stainless steel probe with 2 m / 6.5 ft cable (-70 °C...+180 °C)
- Stainless steel probe with 5 m / 16.4 ft cable (-70 °C...+180 °C)
- Stainless steel probe with 10 m / 32.8 ft cable (-70 °C...+180 °C)

#### Humidity sensor type and chemical purge

- Purge on every start-up and after every 24 hours
- Purge on every start-up only
- No purge (manual purge is still possible)
- Moisture in oil sensor
- H₂O, tolerant sensor with start-up and 24h purge

#### Sensor protection

- PPS with stainless steel mesh (general purpose)
- Sintered stainless steel filter with 38 um pore size
- Sintered PTFE filter with 20 um pore size
- Stainless steel filter for moisture in oil and vacuum

#### Product identity

- Vaisala (default)

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**Example of order code with typical settings for RH&T measurement:**

```
HMM170 2 E G A 1 A 1 A
```

**Example of order code with typical settings for dew point measurement:**

```
HMM170 2 C B G C A 1 A
```

**Example of order code with typical settings for moisture in oil measurement:**

```
HMM170 2 J K L 1 D 4 A
```

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**Accessories:**

- 219690 USB cable for PC connection
- 219980 HM70 Hand-held connection cable
- HMP247CG Feedthrough
- SWG12NPT12 Swagelok NPT1/2" Pressure-tight Installation Adapter for Probe
- SWG12ISO12 Swagelok ISO 1/2" Pressure-tight Installation Adapter for Probe
- 210697 Duct installation kit for probe
- 226067 Probe Mounting Clamp Set (10 pcs)

**Spare parts:**

- DRW010281SP PPS Plastic grid & stainless steel netting
- HM47280SP Stainless steel sintered filter
- 219452SP Sintered PTFE filter with 20 um pore size
- HM47453SP Stainless steel filter for moisture in oil and vacuum