**Reference radiator TM-BR20AR-TIM**

Ambient temperature referencing source

**TM-BR20AR-TIM**
- Reference radiator with high emissivity, ideal for thermal imaging camera based fever screening applications
- Integrated 16-bit digital temperature sensor with 0.1 °C accuracy
- Mounting bracket – adjustable for either ceiling or wall mounting
- Plug-and-play installation with 20 m cable and thermoIMAGER TIM QVGA-HD-T100 suitable PIF-connector

<table>
<thead>
<tr>
<th>Model</th>
<th>TM-BR20AR-TIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature range</td>
<td>30 °C ... 40 °C</td>
</tr>
<tr>
<td>Emissivity</td>
<td>0.95 ±0.02 (for 8 - 14 µm)</td>
</tr>
<tr>
<td>Temperature probe (integrated)</td>
<td>digital 16-bit temperature sensor</td>
</tr>
<tr>
<td>Accuracy of temperature probe</td>
<td>±0.1 °C (25 °C ... 50 °C) / drift: 0.0073 °C</td>
</tr>
<tr>
<td>Accuracy of TIM QVGA-HD-T100 with TM-BR20AR-TIM (T&lt;sub&gt;amb&lt;/sub&gt; 18 °C ... 33 °C)</td>
<td>±0.5 °C (T&lt;sub&gt;amb&lt;/sub&gt; 30 °C ... 40 °C)</td>
</tr>
<tr>
<td>Interface</td>
<td>5-pin connector fitting to PIF-connector of TIM QVGA-HD-T100 cameras</td>
</tr>
<tr>
<td>Dimensions</td>
<td>20 cm x 20 cm x 8.2 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>2.5 kg (with mounting bracket / without cable)</td>
</tr>
</tbody>
</table>

**TM-BR20AR-TIM Reference radiator**
with bracket for wall mount

**TM-BR20AR-TIM Reference radiator**
with bracket for ceiling mount
Reference radiator TM-BR20AR-TIM

Installation of TIM QVGA-HD-T100 and TM-BR20AR-TIM at an inspection gate for individual fever screening

Scope of supply
TM-BR20AR-TIM
- Reference radiator TM-BR20AR-TIM
- Mounting bracket
- 20 m cable with PIF connector
- Instruction Manual

Absolute temperature measurement accuracy
To improve the specified camera accuracy of the TIM QVGA-HD-T100 camera, a reference source with a high emissivity and a stable and known temperature must be positioned in the scene proximate to the subject to be scanned.

The TM-BR20AR-TIM ambient referencing source is equipped with a temperature probe with ± 0.1 °C accuracy.

Integrating this highly accurate reference signal to the TIMConnect software, reduces camera uncertainties resulting from device adjustment, ambient temperature drift and short term stability down to a system accuracy of ± 0.5 °C.

The TIMConnect software is referencing the entire IR image to the known temperature of the ambient reference which is placed inside the FOV.