

**Ambient temperature  
referencing source**



**Key features:**

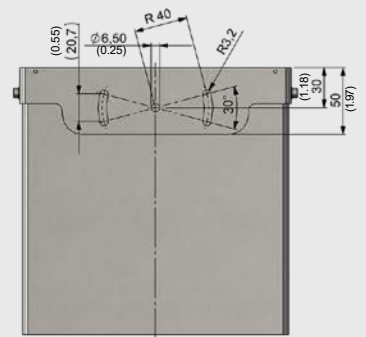
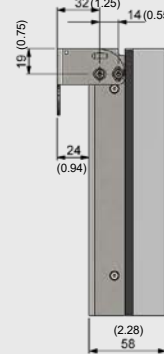
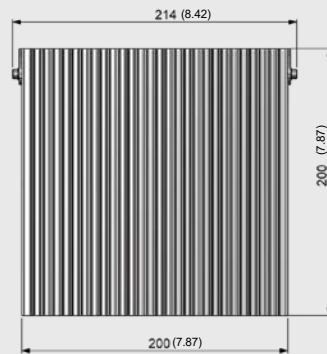
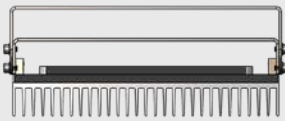
- Reference radiator with high emissivity ideal for IR camera based fever screening applications
- Integrated 16-bit digital temperature sensor with 0.1 °C accuracy
- Mounting bracket – adjustable for either ceiling or wall mounting
- Plug-and-play installation with 20 m [65 ft] cable and PI 400i suitable PIF-connector

**Technical Specifications**

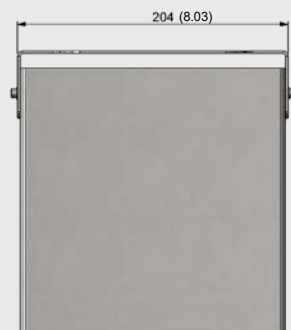
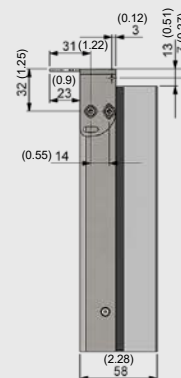
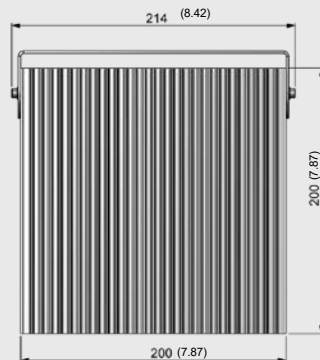
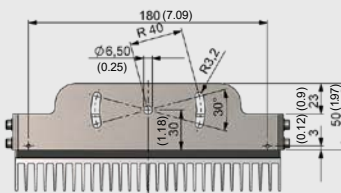
Dedicated temperature range	30 °C (86 °F) ... 40 °C (104 °F)
Emissivity	0.95 +/-0.02 (for 8 - 14 μm)
Temperature probe (integrated)	Digital 16-bit temperature sensor
Accuracy of temperature probe	+/-0.1 °C (25 °C [77 °F]... 50 °C [122°F]) / drift: 0.0073 °C
Accuracy of PI 400i T010 with BR 20AR (T <sub>Amb</sub> 18 °C [64 °F] ... 33 °C [91 °F])	±0.5 °C [0.9 °F] (T <sub>Obj</sub> 30 °C [86 °F] ... 40 °C [104 °F])
Interface	5-pin connector fitting to PIF-connector of PI 450i cameras
Dimensions (in)	20 cm (7.87) x 20 cm (7.87) x 8.2 cm (3.23)
Weight (with mounting bracket/ without cable)	2.5 kg (5.5 lbs)
Scope of supply	<ul style="list-style-type: none"> <li>• BR 20AR radiator</li> <li>• 20 m [65.6 ft] cable with PIF connector</li> <li>• mounting bracket</li> <li>• operator's manual</li> </ul>

**Dimensions in mm (in)**

**optris BR 20AR radiator  
with bracket for wall mount**



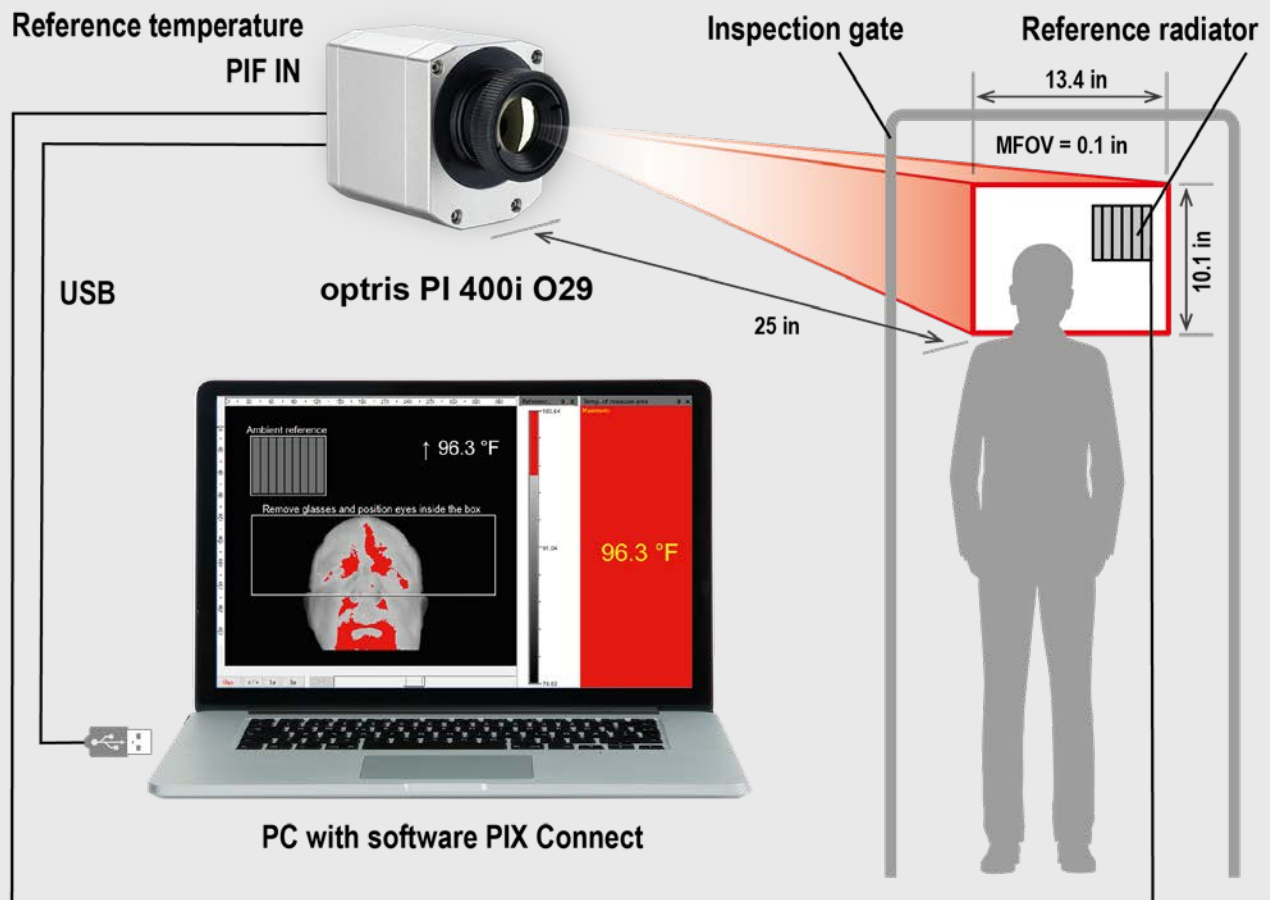
**optris BR 20AR radiator  
with bracket for ceiling mount**



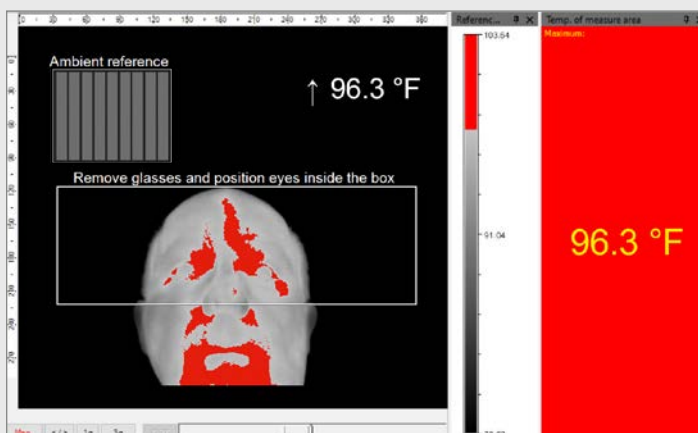
# optris BR 20AR

## TECHNICAL DATA

### Installation of PI 400i and BR 20AR at an inspection gate for individual fever screening



### Absolute temperature measurement accuracy



*The PIX Connect software is referencing the entire IR image to the known temperature of the Ambient reference which is placed inside the FOV.*

To improve the specified camera accuracy of the PI 400i T010 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 BR 20AR Ambient referencing source is equipped with a temperature probe with  $\pm 0.1$  °C accuracy.

By integrating this highly accurate reference signal to our PIX Connect software, we can reduce camera uncertainties resulting from device adjustment, ambient temperature drift and short term stability down to a system accuracy of  $\pm 0.5$  °C.