Non-contact temperature measurement
Metal - glass - paper - plastics - ceramics

Piros Infrared
Pyrometer T GA S
-40 °C - 2500 °C
Piros Infrared Pyrometer

General information

Pyrometers are non-contact measuring thermometers with analog outputs. They complement the Piros infrared sensor range with switching performance in the OSA/OKA/OKB range, which have been tried and tested for years.

The sensors have been designed for control and monitoring tasks in many varied industries:
- steel works and rolling mills
- forging works
- presses
- soldering, sintering and hardening works
- glass industry
- food industry
- paper industry

We recommend the use of our questionnaire for application analysis so that the user does not necessarily need to cope with the theory of radiation measurement.

The following criteria are relevant for selection of the correct sensor:
- size and condition of the object
- minimum/maximum object temperature
- distance from sensor measurement range

Various optical systems ensure optimum adaptation of the measured area to the object size. Please see the type summary for a list of measured area size in relationship to object distance.

Highlight overview

Stainless steel housing with M40 thread
Plug connection with M9 thread
Temperature range:
-40 to 1000 °C, for all materials
100 to 1300 °C, for glass
250 to 2500 °C, for metal
300 to 1300 °C for measurement through flames (e.g. in furnaces)

Electrical connection:
24 V DC as current loop with 4 - 20 mA measuring signal.
Integrated USB interface (galvanically isolated) for parameterisation or measuring data transmission with PC software or hand-held parameterisation device.

Technical data:
- Response time from 10 ms
- Measuring areas from 1,5 mm diameter
- Measuring failure from 0,5% Emissivity adjustable

With integrated laser pilot light and maximum value memory depending on model.

Accessory:
- Mounting bracket
- Colling jacket
- Air purge unit
- Laser - Pilot light attachment
- Monitoring und parameterisation software and USB cable hand-held parameterisation device
- Connection cable in different lengths

The integrated service interface enables display and adjustment of the following parameters:
- Temperature display °C / °F
- Measuring range settings
- Emissivity
- Maximum value memory
- Response time t95

Settings can be carried out using a laptop or PC with the aid of the optional software and the USB interface cable provided. The software runs under Windows. The temperature display can be shown as °C or °F. The user guidance system is multi-lingual and entirely intuitive. The software offers beside the possibility of the parameterisation also the recording and evaluation of the measuring data.

Stand-alone operation:
If the OKS series device is connected via USB to a PC no further power supply is required for operation of the device.

The hand-held parameterisation device allows temperature display on site at any time in addition to changes to all device parameters without PC or software.

Various optical systems ensure optimum adaptation of the measured area to the object size. Please see the type summary for a list of measured area size in relationship to object distance.

Software and hand-held programming device

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- Temperature display °C / °F
- Measuring range settings
- Emissivity
- Maximum value memory
- Response time t95

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Type summary

Pyrometer of the series OKS are available for different applications in different versions. Various optics allow an adaptation to object size and distance.

All devices are provided with plug connection. Separate connecting cables are available in different length.

<table>
<thead>
<tr>
<th>Application</th>
<th>Measuring range</th>
<th>Spectral range</th>
<th>Measuring spot / distance</th>
<th>Type</th>
<th>Art.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>100 - 1300 °C</td>
<td>5,14 µm</td>
<td>2,5 / 100 mm</td>
<td>OKS 5 T5G13.14 S9</td>
<td>6920Q</td>
</tr>
<tr>
<td></td>
<td>300 - 1300 °C</td>
<td>3,9 µm</td>
<td>2,5 / 100 mm</td>
<td>OKS 5 T5F13.14 S9</td>
<td>6920U</td>
</tr>
<tr>
<td>Metal</td>
<td>250 - 1300 °C</td>
<td>1,5 µm ... 1,8 µm</td>
<td>6 / 300 mm</td>
<td>OKS 6 T6G13.14 S9</td>
<td>6920V</td>
</tr>
<tr>
<td></td>
<td>350 - 1800 °C</td>
<td>1,5 µm</td>
<td>16 / 800 mm</td>
<td>OKS 7 TG13.14 S9</td>
<td>6920S</td>
</tr>
<tr>
<td></td>
<td>600 - 1800 °C</td>
<td>0,8 µm ... 1,1 µm</td>
<td>24 / 1200 mm</td>
<td>OKS 8 TG13.14 S9</td>
<td>6920T</td>
</tr>
<tr>
<td></td>
<td>800 - 2500 °C</td>
<td>8 µm ... 14 µm</td>
<td>24 / 1200 mm</td>
<td>OKS 8 TF13.14 S9</td>
<td>6920X</td>
</tr>
<tr>
<td>Universal</td>
<td>-40 - 1000 °C</td>
<td>8 µm ... 14 µm</td>
<td>6 / 300 mm</td>
<td>OKS 5 T110.14 S9</td>
<td>6920N</td>
</tr>
<tr>
<td></td>
<td>-40 - 1000 °C</td>
<td>8 µm ... 14 µm</td>
<td>16 / 800 mm</td>
<td>OKS 7 T110.14 S9</td>
<td>6920B</td>
</tr>
<tr>
<td></td>
<td>-40 - 1000 °C</td>
<td>8 µm ... 14 µm</td>
<td>36 / 2000 mm</td>
<td>OKS 8 T110.14 S9</td>
<td>6920D</td>
</tr>
</tbody>
</table>
Piros OKS accessories

A wide selection of accessories rounds off our product range, and allows adaptation to many different application conditions.

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Type</th>
<th>Art.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting bracket adjustable</td>
<td>DAK 305</td>
<td>6913E</td>
</tr>
<tr>
<td>Mounting bracket</td>
<td>DAK 304</td>
<td>6913D</td>
</tr>
<tr>
<td>Air purge attachment</td>
<td>DAK 303</td>
<td>6913C</td>
</tr>
<tr>
<td>Cooling jacket with air purge</td>
<td>DAK 302</td>
<td>6913B</td>
</tr>
<tr>
<td>Laser pilot light unit</td>
<td>DAK 308</td>
<td>6913G</td>
</tr>
<tr>
<td>Protection tube 100 mm lengths</td>
<td>DAK 319</td>
<td>6913L</td>
</tr>
<tr>
<td>Protection tube 300 mm lengths</td>
<td>DAK 320</td>
<td>6913M</td>
</tr>
<tr>
<td>Vacuum flange</td>
<td>DAK 322</td>
<td>6913O</td>
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<tr>
<td>Cable protection cape</td>
<td>DAK 329</td>
<td>6913X</td>
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<tr>
<td>Protection tube adapter</td>
<td>DAK 330</td>
<td>6913Y</td>
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<tr>
<td>Parameterisation device</td>
<td>DAK 318</td>
<td>6913J</td>
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<tr>
<td>USB interface cable and software</td>
<td>DAK 317</td>
<td>6913I</td>
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<tr>
<td>Connection cable 2 m</td>
<td>ST 59/5-2</td>
<td>9847B</td>
</tr>
<tr>
<td>Connection cable 5 m</td>
<td>ST 59/5-5</td>
<td>9847A</td>
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<tr>
<td>Other lengths on request</td>
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<td></td>
</tr>
</tbody>
</table>

Other pyrometer designs are available for special applications. Please, tell us your requirements.

We will be pleased to advise you.

Applications

- Temperature measurement of glass surfaces
- Material monitoring in presses
- Material detection for the paper or plastics industries
- Temperature monitoring for food industry
- Monitoring of object temperatures in furnaces or behind gas flames.
- Heating and air-conditioning
- Electrical equipment, electronics
- Automobile diagnostics
- Road construction
- Chemical industry
- Furnace construction
- Research and development