Non-contact temperature measurement for universal applications

Piros S Pyrometer
SD series
-40 °C up to 2500 °C
Piros S Pyrometer
General information SD series

Pyrometer for different industrial applications to measure the temperature between -40 °C and 2500 °C. The separate sensor head allows an object temperature measurement in areas which are difficult to access and is suitable for ambient temperatures up to 180 °C. The evaluation electronic with display and programming keyboard enables an easy parameterization of the pyrometer and the display of the temperature value. Due to the RS 485 interface a quick integration in existing BUS systems is possible. The analog output is temperature linear and adjustable to the desired measuring range.

The sensors are designed for controlling and monitoring tasks of different industries:
- steel works and rolling mills
- industrial furnaces
- glass and ceramics
- soldering, sintering, hardening
- metal industry
- paper and packaging
- food and chemical industry

Highlights at a glance

- Sensor head stainless steel M12
- Evaluation electronics in aluminium enclosure 110x80x40 mm
- Display and programming keyboard

Temperature range:
- -40 °C up to 1000 °C
- 0 °C up to 1000 °C
- 250 °C up to 1300 °C
- 350 °C up to 1800 °C
- 600 °C up to 1800 °C
- 800 °C up to 2500 °C

Electrical connection:
- 24 V DC
- 0/4 - 20 mA measuring signal
- RS 485-interface (galvanically isolated) for parameterization and measuring data transmission with PC software
- two switching outputs (potential-free)

Technical data:
- response times from 10 ms
- measuring areas from 7 mm diameter
- accuracy from 1%
- MODBUS RTU
- maximum value memory
- OLED Display
- sensor head up to 125 °C (180 °C)

An extensive accessories programme rounds off the product range and permits the adaption to different applications.

Parameter

Keyboard and display allow the display and adjustment of the following parameter:
- temperature display °C / °F
- measuring range settings
- emissivity setting
- maximum value memory
- setting time (95% time)
- 0/4-20 mA output function
- switching outputs

Settings can be changed using a software via RS 485 interface. The software runs under Windows. The user guidance system is multi-lingual and largely selfexplanatory. Besides parameterization, the software also offers the opportunity to evaluate and keep records of the measurement data.
Pyrometer of the OKS SD series are available in various versions for temperature measurement of different materials.

**Advantages of the SD series**

- temperature measurement for different applications
- small and robust sensor head (M12)
- sensor head up to 125 °C (180 °C) ambient temperature
- adjustment and temperature display at the device
- BUS solution with up to 32 devices
- 2 potential-free switching outputs

### Type overview

<table>
<thead>
<tr>
<th>OKSD universal</th>
<th>measuring distance [mm]</th>
<th>OKSD T10.194 R</th>
<th>OKSD T10.194 RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>measuring range</td>
<td>sensor head</td>
<td>measuring point diameter (mm)</td>
</tr>
<tr>
<td>OKSD T10.194 R</td>
<td>-40 °C up to 1000 °C</td>
<td>up to 125 °C</td>
<td>6,0</td>
</tr>
<tr>
<td>OKSD T10.194 RH</td>
<td>0 °C up to 1000 °C</td>
<td>up to 180 °C</td>
<td>6,0</td>
</tr>
<tr>
<td>Connection cable in 2,0, 5,0 and 15,0 m lengths available</td>
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</table>

### OKSD for metal

<table>
<thead>
<tr>
<th>OKSD for metal</th>
<th>(spectral range 1,5 - 1,8 µm)</th>
<th>OKSD 1 GA 13.194 R</th>
<th>OKSD 1 GA 18.194 R</th>
<th>OKSD 2 GA 13.194 R</th>
<th>OKSD 2 GA 13.194 R</th>
</tr>
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<tbody>
<tr>
<td>type</td>
<td>measuring range</td>
<td>sensor head</td>
<td>measuring point diameter (mm)</td>
<td>near optic</td>
<td>long-range optic</td>
</tr>
<tr>
<td>OKSD 1 GA 13.194 R</td>
<td>250 °C up to 1300 °C</td>
<td>up to 125 °C</td>
<td>2,5</td>
<td>7,5</td>
<td>11,0</td>
</tr>
<tr>
<td>OKSD 1 GA 18.194 R</td>
<td>350 °C up to 1800 °C</td>
<td>up to 125 °C</td>
<td>1,3</td>
<td>5,5</td>
<td>8,5</td>
</tr>
<tr>
<td>OKSD 2 GA 13.194 R</td>
<td>250 °C up to 1300 °C</td>
<td>up to 125 °C</td>
<td>16,0</td>
<td>29,0</td>
<td>42,0</td>
</tr>
<tr>
<td>OKSD 2 GA 13.194 R</td>
<td>350 °C up to 1800 °C</td>
<td>up to 125 °C</td>
<td>10,0</td>
<td>16,0</td>
<td>22,0</td>
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<th>OKSD 2 S18.194 R</th>
<th>OKSD 2 S25.194 R</th>
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<tr>
<td>OKSD 1 S18.194 R</td>
<td>600 °C up to 1800 °C</td>
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Piros S SD series Pyrometer

Piros OKS accessories

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<tr>
<th>accessory description</th>
<th>type</th>
<th>art.-no.</th>
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<tbody>
<tr>
<td>interface converter RS 485 to USB</td>
<td>SIC 485 UD</td>
<td>9861E</td>
</tr>
<tr>
<td>mounting bracket for sensor head adjustable</td>
<td>DAK 333</td>
<td>6914G</td>
</tr>
<tr>
<td>air purge unit for sensor head</td>
<td>DAK 331</td>
<td>6913Z</td>
</tr>
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</table>

Further accessories on request

Proven applications for Proxitron Pyrometer are for example:

- temperature monitoring at presses
- object temperature in furnaces
- paper production
- soldering
- rolling
- baking ovens
- research and development
- asphalting and road construction

Further Proxitron Pyrometer are available for different applications:

- Pyrometer of the Q serie for measurement independent of emissivity between 600 °C and 2500 °C as well as Pyrometer of the GE serie 75 °C - 1200 °C on metals.

Please let us know your requirements. We will be pleased to advise you!