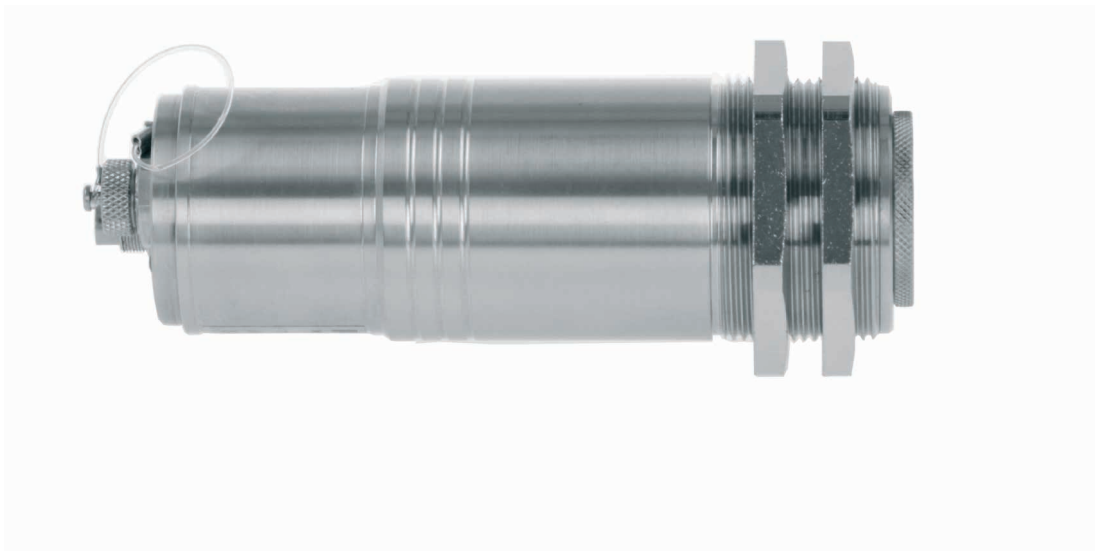


Proxitron

SENSORS MADE IN GERMANY

**Piros S Pyrometer
GE series
75 °C up to 1200 °C**



Non-contact temperature measurement of metals

ans
Leading automation, Leading Innovation
ansvietnam.com
sales.ans@ansvietnam.com

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SENSORS MADE IN GERMANY

Piros Pyrometer are non-contact measuring thermometers with analog outputs. They complete the Piros infrared sensor range with switching behaviour which have been tried and tested for years.

For temperature measurement of metals we offer the stationary design OKS GE in various versions with measurement ranges between 75 °C and 1.200 °C.

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

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 the selection of the correct sensor:

- size and material of the object
- minimum/maximum object temperature
- distance from sensor to the desired measuring area
- ambient temperature

Highlights at a glance

Stainless steel housing with M40 thread
Plug connection with S10 plug (M18)

Temperature range:

- 75 °C up to 650 °C for metal
- 100 °C up to 800 °C for metal
- 150 °C up to 1200 °C for metal

Electrical connection:

- 24 V DC
- 0/4 - 20 mA output signal
- RS 485 interface (galvanically isolated) for parameterization and measuring data transmission with PC software

Technical data:

- spectral range of 2,0 - 2,6 µm
- response times from 5 ms
- measuring areas from 1,5 mm diameter
- measuring failure from 0,5%
- emissivity adjustable
- MODBUS RTU
- Laser pilot light unit
- maximum value memory

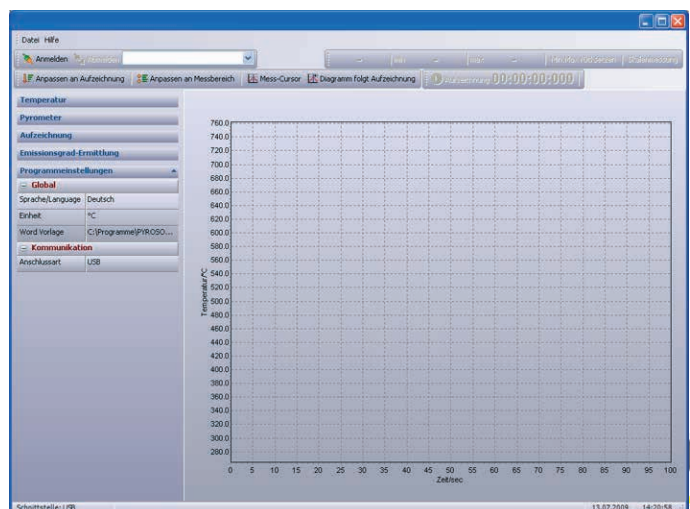
An extensive accessories programme rounds off the product range and permits the adaptation to different applications.

Software

The integrated RS 485 interface allows via software the display and adaption of the following parameters:

- temperature display °C / °F
- measuring range settings
- emissivity
- maximum value memory
- setting time (95% time)
- 0/4-20 mA analog output

Settings can be carried out using a laptop / PC with the aid of an optional software and a RS 485 interface adapter. The software runs under Windows. The user guidance system is multi-lingual and largely self-explanatory. Besides parameterization, the software also offers the opportunity to evaluate and keep records of the measurement data.



Piros Pyrometer

Type summary GE series

Pyrometer of the OKS GE series for temperature measurement of metals are available in different versions. The spectral range of 2,0 - 2,6 μm allows a high accuracy even at lower material temperatures.

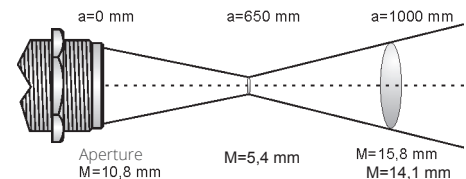
Various optics enable adaption to the object size and distance. All devices are equipped with a plug connection. Separate connection cables are available in different lengths.



Advantages of the GE series

- temperature measurement at low temperatures
- short response times
- high accuracy
- BUS solution with up to 32 devices
- spectral range 2,0 - 2,6 μm

Different optics ensure the optimal adjustment of the measuring spot to the object size. The table below shows the size of the measuring spot in relation to the object distance.



Example: OKS 3 GE08.194 S10

Type overview

OKS 2 (focus point at „a“ = 290 mm measuring distance)

| | | measuring distance „a“ [mm] | 0 | 100 | 200 | 290 | 400 | 500 | 600 |
|----------|--------------------|-----------------------------|-----------------------------------|-----|-----|------------|-----|------|------|
| art.-no. | type | measuring range | measuring point diameter „M“ [mm] | | | | | | |
| 6923G | OKS 2 GE06.194 S10 | 75 °C up to 650 °C | 11,8 | 9,0 | 6,1 | 3,6 | 9,4 | 14,7 | 20,0 |
| 6923D | OKS 2 GE08.194 S10 | 100 °C up to 800 °C | 11,8 | 8,6 | 5,3 | 2,4 | 7,7 | 12,6 | 17,4 |
| 6923A | OKS 2 GE12.194 S10 | 150 °C up to 1200 °C | 11,8 | 8,2 | 4,7 | 1,5 | 6,5 | 11,1 | 15,7 |

OKS 3 (focus point at „a“ = 650 mm measuring distance)

| | | measuring distance „a“ [mm] | 0 | 200 | 400 | 650 | 800 | 1000 | 1500 |
|----------|--------------------|-----------------------------|-----------------------------------|-----|-----|------------|------|------|------|
| art.-no. | type | measuring range | measuring point diameter „M“ [mm] | | | | | | |
| 6923H | OKS 3 GE06.194 S10 | 75 °C up to 650 °C | 10,8 | 9,9 | 8,9 | 7,7 | 11,9 | 17,6 | 32 |
| 6923E | OKS 3 GE08.194 S10 | 100 °C up to 800 °C | 10,8 | 9,2 | 7,5 | 5,4 | 9,2 | 14,1 | 27 |
| 6923B | OKS 3 GE12.194 S10 | 150 °C up to 1200 °C | 10,8 | 8,6 | 6,3 | 3,5 | 6,8 | 11,2 | 22 |

OKS 4 (focus point at „a“ = 1500 mm measuring distance)

| | | measuring distance „a“ [mm] | 0 | 500 | 750 | 1000 | 1250 | 1500 | 2000 |
|----------|--------------------|-----------------------------|-----------------------------------|------|------|------|------|-------------|------|
| art.-no. | type | measuring range | measuring point diameter „M“ [mm] | | | | | | |
| 6923I | OKS 4 GE06.194 S10 | 75 °C up to 650 °C | 10,4 | 12,9 | 14,1 | 15,3 | 16,5 | 17,7 | 27 |
| 6923F | OKS 4 GE08.194 S10 | 100 °C up to 800 °C | 10,4 | 10,8 | 11,0 | 11,2 | 11,4 | 11,6 | 18,9 |
| 6923C | OKS 4 GE12.194 S10 | 150 °C up to 1200 °C | 10,4 | 9,4 | 8,9 | 8,5 | 8,0 | 7,5 | 13,5 |

Piros S GE series Pyrometer



Piros OKS accessories

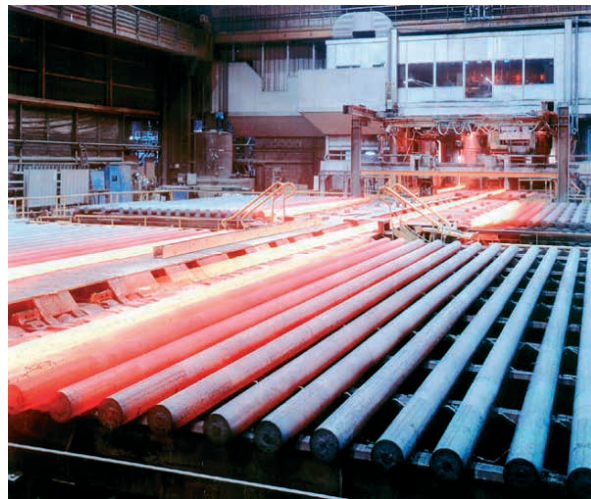
| accessory description | type | art.-no. |
|-----------------------------------|-------------|----------|
| connection cable 2 m *) | ST S10/12-2 | 9847H |
| connection cable 5 m *) | ST S10/12-5 | 9847D |
| interface converter RS 485 to USB | SIC 485 UD | 9861E |
| mounting bracket adjustable | DAK 305 | 6913E |
| mounting bracket fixed | DAK 304 | 6913D |
| air purge unit | DAK 303 | 6913C |
| cooling jacket with air purge | DAK 302 | 6913B |
| cable protection cape | DAK 329 | 6913X |
| protection tube 100 mm lengths | DAK 319 | 6913L |
| protection tube 300 mm lengths | DAK 320 | 6913M |
| vaccum flange | DAK 322 | 6913O |

*) Further cable lengths on request

Furthermore we offer suitable protective cable hoses for the Pyrometer with cooling jacket.

Proven applications for Proxitron Pyrometer are for example:

- temperature monitoring at presses
- object temperature in furnaces
- preheating
- hardening
- soldering
- rolling
- furnace construction
- research and development



Other Pyrometer versions are available for special applications.
Please let us know your requirements. We will be pleased to advise you!