

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



Non-contact temperature measurement of metals

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  $\mu\text{m}$  allows a high accuracy even at lower material temperatures.

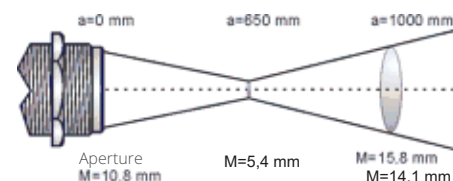
Various optics enable adaption to the object size and distance. All devices are equipped with a plug connection. Separate connection cables are available in different lengths.



### 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  $\mu\text{m}$

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	<b>290</b>	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	<b>3,6</b>	9,4	14,7	20,0
6923D	OKS 2 GE08.194 S10	100 °C up to 800 °C	11,8	8,6	5,3	<b>2,4</b>	7,7	12,6	17,4
6923A	OKS 2 GE12.194 S10	150 °C up to 1200 °C	11,8	8,2	4,7	<b>1,5</b>	6,5	11,1	15,7

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

		measuring distance „a“ [mm]	0	200	400	<b>650</b>	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	<b>7,7</b>	11,9	17,6	32
6923E	OKS 3 GE08.194 S10	100 °C up to 800 °C	10,8	9,2	7,5	<b>5,4</b>	9,2	14,1	27
6923B	OKS 3 GE12.194 S10	150 °C up to 1200 °C	10,8	8,6	6,3	<b>3,5</b>	6,8	11,2	22

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

		measuring distance „a“ [mm]	0	500	750	1000	1250	<b>1500</b>	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	<b>17,7</b>	27
6923F	OKS 4 GE08.194 S10	100 °C up to 800 °C	10,4	10,8	11,0	11,2	11,4	<b>11,6</b>	18,9
6923C	OKS 4 GE12.194 S10	150 °C up to 1200 °C	10,4	9,4	8,9	8,5	8,0	<b>7,5</b>	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!

# Proxitron

SENSORS MADE IN GERMANY