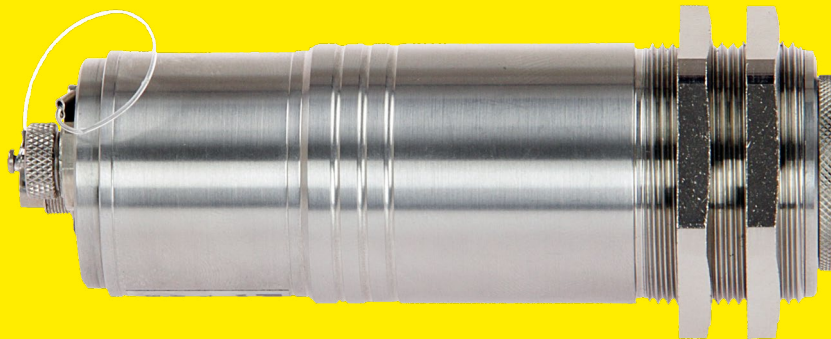


Pyrometers OKS A

20°C ... 1000 °C

Fast temperature measurement from room temperature



Measurement range	20 - 850 °C	30 - 1000 °C
Application	Metal; ceramics; soldering materials	Metal; ceramics; soldering materials
Spectral range	3 µm ... 5 µm	3 µm ... 5 µm
Emissivity (adjustable)	0,05 up to 1,00	0,05 up to 1,00
Measurement accuracy	0,6 %	0,6 %
Response time (t95)	5 ms	5 ms
Output	0/4 -20 mA	0/4 -20 mA
Digital interface	RS-485 (MODBUS RTU)	RS-485 (MODBUS RTU)
Integrated pilot light	yes (LED)	yes (LED)
Housing [mm]	M40 x 125	M40 x 125
Housing material	stainless steel	stainless steel
Ambient temperature	0 ... +70 °C	0 ... +70 °C
Near-field optics type	OKS 10 A08.194 S10	OKS 10 A10.194 S10
Standard optics type	OKS 11 A08.194 S10	OKS 11 A10.194 S10
Long-range optics type	OKS 12 A08.194 S10	OKS 12 A10.194 S10

	Measurement distance a [mm]	0	95	150	200	250	300
OKS 10 A08.194 S10	Measurement spot diameter M [mm]	13	1,7	11	18	26	34

	Measurement distance a [mm]	0	100	250	400	500	600
OKS 11 A08.194 S10	Measurement spot diameter M [mm]	15	11	4,5	17	25	32

	Measurement distance a [mm]	0	300	500	800	1000	1200
OKS 12 A08.194 S10	Measurement spot diameter M [mm]	15	14,6	14,4	14	18	24

Focus point = **bold value**

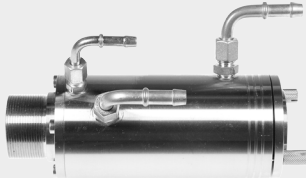
	Measurement distance a [mm]	0	95	150	200	250	300
OKS 10 A10.194 S10	Measurement spot diameter M [mm]	13	1,7	11	18	26	34

	Measurement distance a [mm]	0	100	250	400	500	600
OKS 11 A10.194 S10	Measurement spot diameter M [mm]	15	11	4,5	17	25	32

	Measurement distance a [mm]	0	300	500	800	1000	1200
OKS 12 A10.194 S10	Measurement spot diameter M [mm]	15	14,6	14,4	14	18	24

Focus point = **bold value**

Accessories for pyrometers



Accessories	Mounting bracket	Connection cable	Interface converter	Protection tube	Cooling jacket	Cable protection cap	Air purge unit
Type	DAK 304	ST S10/12-2	SIC 485 UD	DAK 319	DAK 302	DAK 329	DAK 303
Description	Fixed mounting bracket	length 2 m	RS-485 to USB	length 100 mm	incl. air purge unit	compatible with DAK 302	air blow unit M40
Type	DAK 305	ST S10/12-5		DAK 320			
Description	mounting bracket adjustable	length 5 m		length 300 mm			

Additional accessories for furnace applications, such as dedicated furnace windows and vacuum flange adapters, are available.

Pyrometers OKS A – General Information

The stationary pyrometers of the OKS A series are particularly suitable for fast, non-contact temperature measurement of metals and ceramic materials. With measuring ranges starting at 20 °C or 30 °C, they enable temperature measurement from room temperature up to high processing temperatures of 850 °C or 1000 °C. Thanks to short response times from 5 ms, even rapid temperature changes and dynamic processes can be reliably detected. The pyrometers are therefore particularly suitable for measurement, control and monitoring tasks in the metalworking industry where a wide temperature range needs to be monitored at high measurement speeds.



For non-contact temperature measurements, low measuring temperatures and fast, precise measurement are often conflicting requirements. While short-wavelength pyrometers provide high measurement speeds and accuracy, they are generally not suitable for measurements close to room temperature. The OKS A series pyrometers combine a low starting temperature with short response times and high measurement accuracy. This allows temperatures from as low as 20 °C or 30 °C up to high processing temperatures to be measured quickly and reliably.

The emissivity can be individually adjusted to suit different materials and area. A range of fixed-focus optics ensures optimum adaptation to object size and measuring distance. To avoid measurement errors, the target must completely fill the pyrometer field of view. Depending on the optics, spot sizes as small as 1.7 mm in diameter are possible.

The integrated LED aiming light facilitates precise alignment of the pyrometer with the target. Its size approximately corresponds to the measuring field, and it remains clearly visible even at high target temperatures. All devices feature a temperature-linear 0/4–20 mA analog output and a galvanically isolated RS-485 interface with Modbus RTU for integration into higher-level measurement and control systems.

The associated Windows software allows convenient configuration of emissivity, response time, measuring range and minimum/maximum value storage. Separate connection cables in various lengths and a comprehensive range of accessories allow the pyrometers to be adapted to different applications and environmental conditions.

Proxitron GmbH . 25335 Elmshorn . Germany

Telefon +49 4121 2621-0 . info@proxitron.de . www.proxitron.de

- Temperature measurement of metals or ceramics
- Process control in furnaces
- Heating / cooling
- Hardening
- Soldering
- Welding
- Tempering
- Steel industry
- Metal processing
- Ceramics industry
- Soldering, sintering and hardening systems
- Furnace construction



- Temperature measurement from 20 °C to +1000 °C
- Accuracy up to 0,6 %
- Response times from 5 ms
- Various optics
- Robust stainless steel M40 housing
- Ambient temperature up to +70 °C
- Cooling jacket up to +200 °C
- Integrated LED aiming light
- Memory for minimum and maximum value
- 4 - 20 mA output
- Galvanically isolated RS-485 interface
- Adjustment of temperature range, emissivity and measuring rate possible via software
- Windows software for parameterization, display, storage and evaluation of the measurement values
- Extensive range of accessories