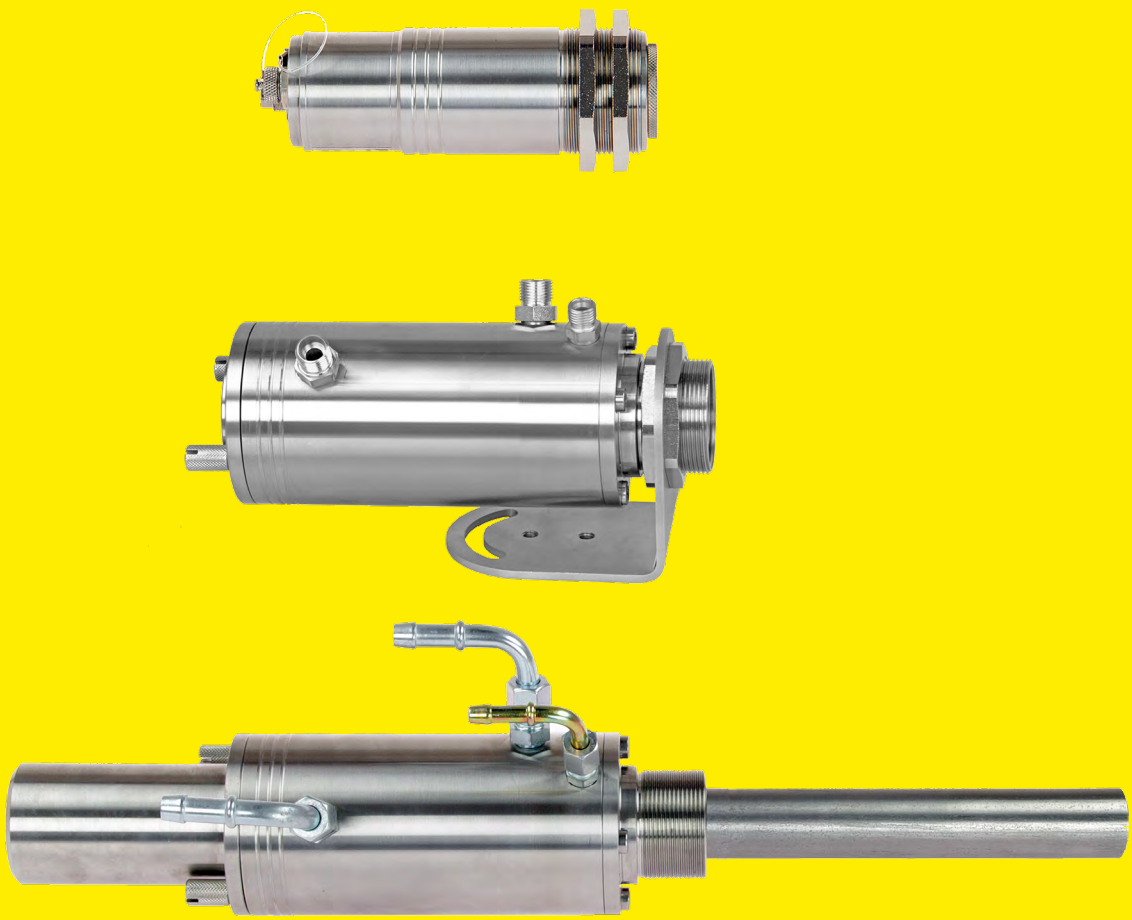
Proxitron

SENSORS MADE IN GERMANY

Pyrometers OKS T GA S

-40 °C ... +2500 °C

Non-contact temperature measurement of steel, glass, paper, plastics, ceramics



Pyrometers
OKS T GA S

Proxitron
SENSORS MADE IN GERMANY

Measurement range	-40 - 1000 °C	100 - 1300 °C	300 - 1300 °C	250 - 1300 °C	350 - 1800 °C	600 - 1800 °C	800 - 2500 °C
Application	universal use	glass	measurement through flames	metal	metal	metal	metal
Spectral range	8 µm ... 14 µm	5,14 µm	3,9 µm	1,5 µm ... 1,8 µm	1,5 µm ... 1,8 µm	0,8 µm ... 1,1 µm	0,8 µm ... 1,1 µm
Measurement accuracy	1 %	1 %	1 %	0,5 %	0,5 %	0,5 %	0,5 %
Response time (t_{95})	60 ms	60 ms	60 ms	10 ms	10 ms	10 ms	10 ms
Output	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)	4 -20 mA (2 Wires)
Digital interface	USB	USB	USB	USB	USB	USB	USB
Integrated pilot light	no	no	no	yes (LED)	yes (LED)	yes (LED)	yes (LED)
Housing [mm]	M40 x 125	M40 x 125	M40 x 125	M40 x 125	M40 x 125	M40 x 125	M40 x 125
Housing material	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
Ambient temperature	0 ... +70 °C	0 ... +70 °C	0 ... +70 °C	0 ... +70 °C	0 ... +70 °C	0 ... +70 °C	0 ... +70 °C
Near-field optics type	**OKS 5 T10.14 S9**	**OKS 5 TG13.14 S9**	**OKS 5 TF13.14 S9**				
Standard optics type	**OKS 6 T10.14 S9**	**OKS 6 TG13.14 S9**	**OKS 6 TF13.14 S9**	**OKS 2 GA13.14 S9**	**OKS 2 GA18.14 S9**	**OKS 2 S18.14 S9**	**OKS 2 S25.14 S9**
Long-range optics type	**OKS 7 T10.14 S9**	**OKS 7 TG13.14 S9**	**OKS 7 TF13.14 S9**	**OKS 3 GA13.14 S9**	**OKS 3 GA18.14 S9**	**OKS 3 S18.14 S9**	**OKS 3 S25.14 S9**
Teleoptics type	**OKS 8 T10.14 S9**			**OKS 4 GA13.14 S9**	**OKS 4 GA18.14 S9**	**OKS 4 S18.14 S9**	**OKS 4 S25.14 S9**

OKS 5 T10.14 S9 **OKS 5 TG13.14 S9** **OKS 5 TF13.14 S9**	Measurement distance a [mm]	0	50	**95**	200	250	300
	Measurement spot diameter M [mm]	15	8	**1,7**	21	29	38
OKS 6 T10.14 S9	Measurement distance a [mm]	0	100	**295**	400	500	600
	Measurement spot diameter M [mm]	15	11,8	**5,5**	13	20	27
OKS 6 TG13.14 S9 **OKS 6 TF13.14 S9**	Measurement distance a [mm]	0	100	**260**	400	500	600
	Measurement spot diameter M [mm]	15	10,8	**4,2**	15	22	29
OKS 7 T10.14 S9 **OKS 7 TG13.14 S9** **OKS 7 TF13.14 S9**	Measurement distance a [mm]	0	300	500	600	**780**	1000
	Measurement spot diameter M [mm]	15	14,6	14,4	14,3	**14**	19
OKS 8 T10.14 S9	Measurement distance a [mm]	0	800	1200	1800	**2000**	2500
	Measurement spot diameter M [mm]	15	24	28	34	**36**	46

Focus point = **bold value**

OKS 2 GA13.14 S9 **OKS 2 S18.14 S9**	Measurement distance a [mm]	0	100	**290**	400	500	600
	Measurement spot diameter M [mm]	11,8	8,8	**3**	8,6	13,7	18,8
OKS 2 GA18.14 S9 **OKS 2 S25.14 S9**	Measurement distance a [mm]	0	100	**290**	400	500	600
	Measurement spot diameter M [mm]	11,8	8,2	**1,5**	6,5	11,1	15,7
OKS 3 GA13.14 S9 **OKS 3 S18.14 S9**	Measurement distance a [mm]	0	300	**650**	800	1000	1200
	Measurement spot diameter M [mm]	10,8	9,5	**6,5**	10,5	15,8	21,1
OKS 3 GA18.14 S9 **OKS 3 S25.14 S9**	Measurement distance a [mm]	0	300	**650**	800	1000	1200
	Measurement spot diameter M [mm]	10,8	8,6	**3,5**	6,8	11,2	15,6
OKS 4 GA13.14 S9 **OKS 4 S18.14 S9**	Measurement distance a [mm]	0	800	1600	2400	3200	**4000**
	Measurement spot diameter M [mm]	10,4	16,3	22,2	28,2	34,1	**40**
OKS 4 GA18.14 S9 **OKS 4 S25.14 S9**	Measurement distance a [mm]	0	800	1600	2400	3200	**4000**
	Measurement spot diameter M [mm]	10,4	12,3	14,2	16,2	18,1	**20**

Focus point = **bold value**

Accessories for pyrometers




Accessories for pyrometers




Accessory	Mounting bracket	Connection cable	Interface cable	Protection tube	Cooling jacket	Cable Protection Cape	Air purge unit	Laser pointer
Type	**DAK 304**	**ST S9/5-2**	**DAK 317**	**DAK 319**	**DAK 302**	**DAK 329**	**DAK 303**	**DAK 308**
Description	one-side mounting bracket	length 2 m	USB, incl. software	length 100 mm	incl. air blow	compatible with DAK 302	air blow unit M40	laser light
Type	**DAK 305**	**ST S9/5-5**		**DAK 320**				
Description	mounting bracket adjustable	length 5 m		length 300 mm				

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

Pyrometers OKS T GA S – General Information

Stationary pyrometers of the OKS series measure the temperature of object contactless and give an analog output signal. For the measurement on different materials several variants are available for temperature ranges between -40 and +2500 °C. The OKS series has been designed for control and monitoring tasks in different industrial sectors.

The key feature in selecting a pyrometer is its spectral range, as this must be related to the properties of the specific material and to the application. A pyrometer with wavelength as short as possible is recommended, if you want to achieve high accuracy. Various optical systems ensure best adaptation to the object size. To avoid reading errors, it is necessary to choose a measurement spot that can always be completely filled by the object. The table shows for the different types how the spot dimension changes in relation to the object distance. The incorporated LED light makes precise alignment on the object to be measured easier, as the light dimension approximately represents the measurement spot. For pyrometers without LED light we offer a separate Laser pointer.

All models are provided with a connector with 4-20 mA analog output in 24 V DC, 2 wire, current loop system. They also have a USB interface with galvanic isolation. A USB interface cable is available as option for stand-alone operation of the pyrometer without additional power supply. Through the multilingual windows software – associated with the interface cable - it is possible to adjust the measurement range and emissivity, as well as to display the temperature values in °C / °F, evaluate and record them. Also max and min. storage value and the measuring rate can be set. Separate connection cables are available in several lengths. A comprehensive range of accessories allows the adaptation to different operating conditions.

- **Temperature measurement of glass surfaces**
- **Material monitoring in presses**
- **Process control in the paper or plastics industry**
- **Temperature monitoring in the food industry**
- **Temperature control of objects in furnaces or behind gas flames**
- **Heating and air-conditioning**
- **Electrical equipment, electronics**
- **Road construction**
- **Chemical industry**
- **Furnace construction**
- **Research and Development**
- **Steelworks and rolling mills**
- **Forging**
- **Presses**
- **Soldering, sintering and hardening**

- **Temperature measurement between -40 and +2500°C**
- **Accuracy up to 0,5%**
- **Response time from 10 ms**
- **Several optics**
- **Robust stainless steel M40 housing**
- **Ambient temperature up to +70, up to +200 °C with cooling jacket**
- **Integrated LED light for alignment (depending on version)**
- **Memory for minimum and maximum value**
- **4 - 20 mA output (2 wire 24 V DC current loop)**
- **USB interface, with galvanic isolation**
- **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**

Proxitron GmbH . 25335 Elmshorn . Germany
Telefon +49 4121 2621-0 . info@proxitron.de . www.proxitron.de

Proxitron
SENSORS MADE IN GERMANY

P85E 0920