

Non-Contact Temperature Measurement

MAURER – INFRARED – RADIATION THERMOMETER

Temperature range 250 to 1700°C (482 - 3092°F)

Temperature control during production process
compact units – Infrared – measuring transducer and electronic process
unit in one case with light beam aiming device

Series KTR 1475



MAURER – Infrared – radiation thermometer can also assist you to monitor your heating processes, ensuring a uniform standard of quality for your products.

leaflet KTR 1475

<http://www.maurer-ir.de>

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Infrared Radiation Thermometer Series KTR 1475

Over 50 years experience in the area of non-contact temperature measurement and permanently development in completion of the models, makes it possible to offer you a complete program of field tested thermometer types. In fast warming processes only the non-contact temperature measurement is suitable. The series of **KTR 1475** are part-radiation thermometer, which record in a narrow spectral range the infrared radiation, emitted from the heat source and convert it into a signal, suitable for recording, switching or controlling processes. When non-contact temperature recording is introduced it must be remembered, that heat source radiation depends on the material and its surface. This physical characteristic is described as emissivity, and can (if known) be preset at the instrument in form of an emission factor.

Examples for applications :

steel, iron, non-ferrous metal, tempering, coating, wires, hardening, induction heating, soldering, forging, pre-heating, rolling

Temperature - measuring range - linear -

No.	Meas.- range short
1	250 - 550°C (482 - 1022°F)
2	300 - 800°C (572 - 1472°F)
3	350 - 900°C (662 - 1652°F)
4	400 - 1000°C (752 - 1832°F)
5	500 - 1200°C (932 - 2192°F)

No.	Meas.- range long
6	250 - 1200°C (482 - 2192°F)
7	300 - 1300°C (572 - 2372°F)
8	350 - 1350°C (662 - 2462°F)
9	400 - 1500°C (752 - 2732°F)
10	500 - 1700°C (932 - 3092°F)

(Special meas.range on request)

Technical Data

Measuring range	250 - 1700°C (482 - 3092°F)
Spectral range	1,45 - 1,7 µm
Response time	10 - 100 ms
Accuracy	1 % ± 1°C
Reproducibility	3 ‰
Emission factor	100 - 10 %
Working temperature	0°C - 60°C (32°F - 140°F)
Stock temperature	-10°C - + 70°C (14 - 158°F)
Temperature- sensitivity	0,05 % / °C
Humidity tolerance	35 - 85 % RF
Output (choiceable)	0 - 20 mA
	4 - 20 mA
	0 - 1 V
Operating voltage	DC 24 V ± 10 %
	AC 24 V ± 10 %
Current input	< 160 mA
Unit connection	5 - pole socket
Dimensions H / W / D	54 x 54 x 147 mm (2,13x2,13x5,70 inch)
Weight	0,6 kg (1,32 lbs)
Protection grade	IP 65

Fibre optic cables: Type GM-L49, length 1800 mm in metal hose/T-coated
ambient temperature max.150°C, bend radius min. 40 mm

186-2005	Infrared fibre optic cable	Type GM-L 49	1800 mm	∅ 1,1 mm fibre bundle
186-2010	Infrared fibre optic cable	Type GM-L 49	1800 mm	∅ 2,0 mm fibre bundle
186-2036	Infrared fibre optic cable	Type GM-L 49	1800 mm	0,5 x 2,7 mm fibre bundle

(other length and fibre bundles on request)

Objectives:

For accommodation to the measuring application are several objectives and optic systems available.

Options: - built-in digital display
- maximum reading memory

electronic process unit

AE 1010
AE 1012
AE 1410
AE 1412

electrical assembly

- digital display
- 2 contact outputs
- interface RS 232 o.s.
- power supply 230V/AC - 24 V/DC

mechanical assembly

- units with cooling case
- blowing device
- mirror 90°
- mounting parts

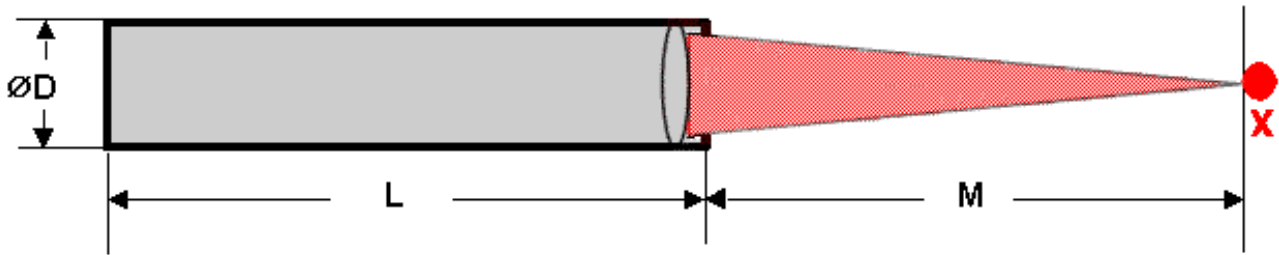
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Reg.-Nr.: Q1 0201014

Objectives for units with fibre optic cable 1475/1485



Fibre bundle $\varnothing 1,1 \text{ mm}$ / $\varnothing 2,0 \text{ mm}$ / $0,5 \times 2,7 \text{ mm}$

For determination of the respective target size X the fibre optic bundle must be multiplied by the magnification factor of the optic system.

Article-No.:	Optic-type:	\varnothing D mm	Meas. distance M mm	zoom factor V	length L mm
116-1206	VL 20 M	11	20	1,0	49,5
116-1068	VL 40 M	11	40	1,0	67,0
116-1207	VL 60	11	60	1,5	62,5
116-1208	VL 50 M	18	50	0,6	127,0
116-1028	VL 100 M	18	100	1,0	127,0
116-1029	VL 160	18	160	1,6	157,0
116-1209	VL 200	18	200	2,0	144,0
116-1050	VL 250	18	250	2,5	132,5
116-1210	VL 300	18	300	3,3	125,5
116-1211	VL 400	18	400	4,5	119,0
116-1071	VL 500	18	500	4,0	152,0
116-1212	VL 600	18	600	6,0	146,5
116-1213	VL 1000	18	1000	9,5	138,0
116-1214	VL 1500	18	1500	13,6	135,0
116-1215	VL 100 M	25	100	1,0	127,5
116-1216	VL 160	25	160	1,5	123,0
116-1217	VL 200	25	200	2,0	226,0
116-1218	VL 250	25	250	2,5	147,0

(special objectives on request)

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