Non-Contact Temperature Measurement

MAURER – INFRARED – RADIATION THERMOMETER

Temperature range 550 to 4000°C (1022 - 7232°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 1485

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

leaflet KTR 1485

http://www.maurer-ir.de

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Infrared Radiation Thermometer Series KTR1485

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 serie of **KTR 1485** 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 apperatus in form of an emission factor.

Examples for applications :
steel, iron, non-ferrous metal, wires, glass feeder, glass tub, glass arching, hardening, induction heating, ceramics, soldering, forging, welding, transforming, vacuum furnace, rolling

Temperature - Measuring - range
- linear -

No.	Meas.- range short
1	550 - 1050°C (1022 - 1922°F)
2	600 - 1200°C (1112 - 2192°F)
3	650 - 1300°C (1202 - 2372°F)
4	700 - 1400°C (1292 - 2552°F)
5	750 - 1500°C (1382 - 2732°F)
6	800 - 1700°C (1472 - 3092°F)
7	900 - 2000°C (1652 - 3632°F)
8	1000 - 2200°C (1832 - 3992°F)
9	1100 - 2500°C (2012 - 4532°F)

No.	Meas.- range long
10	550 - 1800°C (1022 - 3272°F)
11	600 - 2000°C (1112 - 3632°F)
12	650 - 2200°C (1202 - 3992°F)
13	700 - 2500°C (1292 - 4532°F)

special meas. range up
to 4000°C on request

Technical Data

Measuring range	550 - 4000°C (1022 - 7232°F)
Spectral range	0,85 - 1,1 µm
Response time	10 - 100 ms
Accuracy	1 % ± 1°C
Reproducibility	3 ‰
Emissions factor	100 - 10 %
Working temperature	0°C - 60°C (32 - 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
Dimension 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-L48, length 1800 mm in metal hose/T-coated
ambient temperature max. 150°C, bend radius min. 40 mm

186-2005	fibre optic cable Type GM-L48	1800 mm	∅ 1,1 mm fibre bundle
186-1010	fibre optic cable Type GM-L48	1800 mm	∅ 2,0 mm fibre bundle
186-1030	fibre optic cable Type GM-L48	1800 mm	0,5 x 2,7 mm fibre bundle

(other length and fibre bundle on request)

Objectives:
For accomodation to the measuring application are several objectives and optic systems available.

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

electronic process unit	electrical assembly	mechanical assembly
AE 1010	- digital display	- units with cooling case
AE 1012	- 2 contact outputs	- blowing device
AE 1402	- interface RS 232 o.s.	- mirror 90°
AE 1412	- power supply 230V/AC - 24 V/DC	- mounting parts

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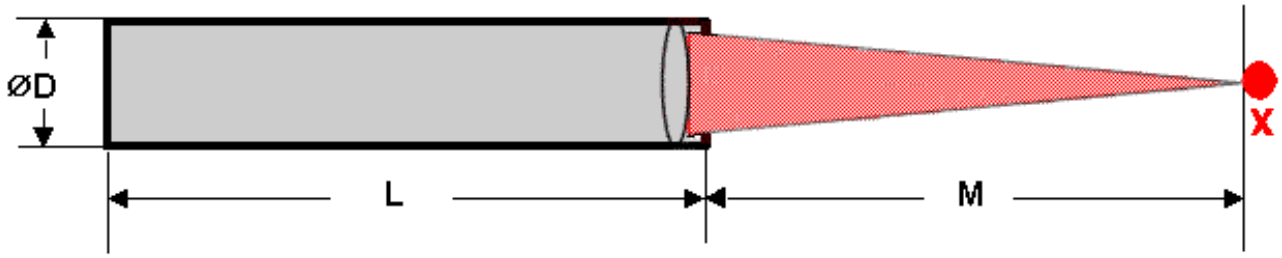
Objectives for units with fibre optic cable **1475/1485**



Fibre bundle ∅ 1,1 mm / ∅ 2,0 mm / 0,5 x 2,7 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:	∅ 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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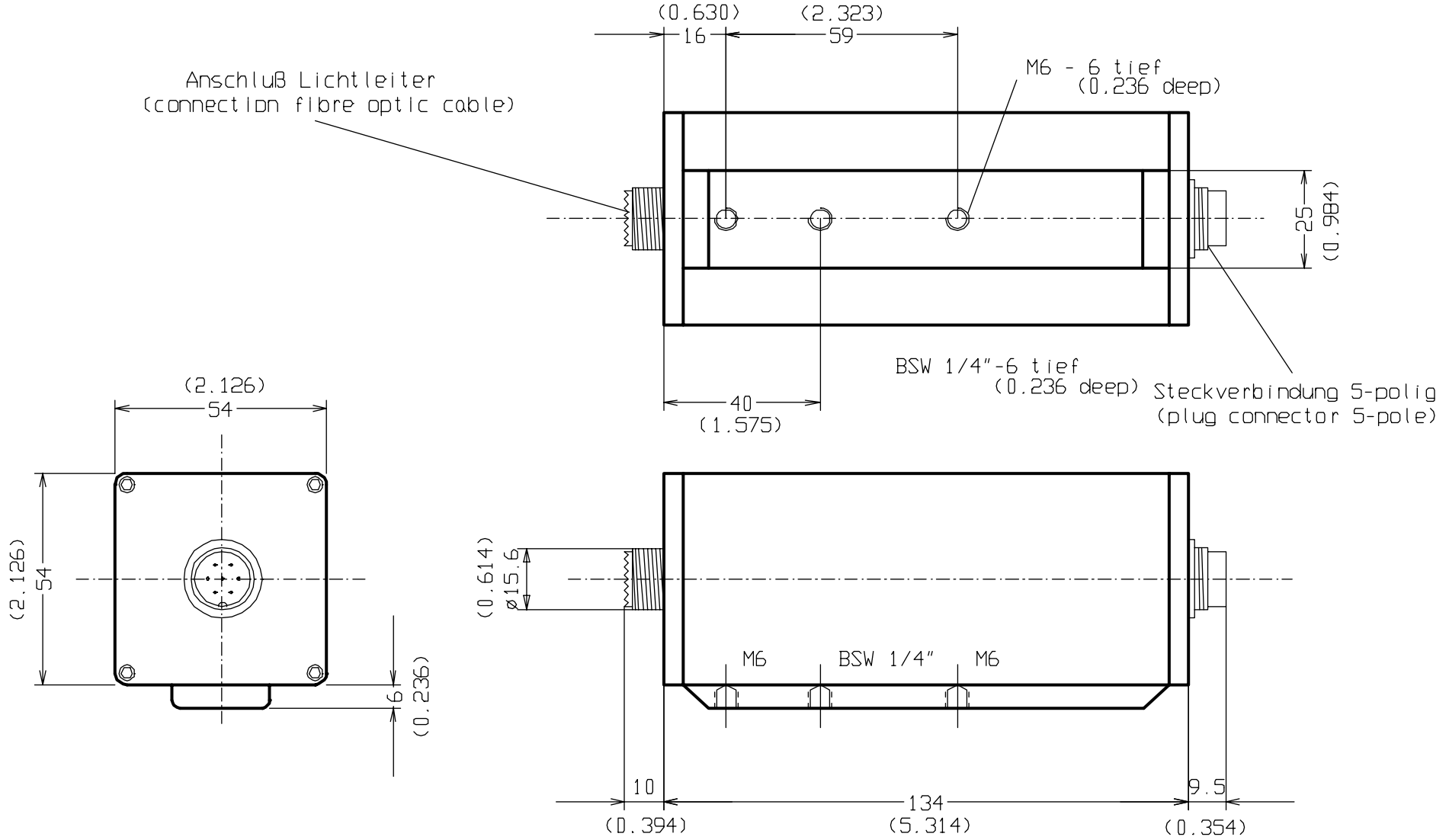

(xxx) - MaBe in Zoll
(dimensions inch)

					Datum	Name
				Bearb	10.01.96	Schlotterb.
				Gepr		
				Norm		
			11.06.03			
Zust	Änderung		Datum	Name		

MaBstab 1:1

Fa.Dr. Maurer GmbH

STANDARDGEHÄUSE (standard case)
KTR 1400

960102

Blatt
Bl.