Non-Contact Temperature Measurement

MAURER – INFRARED – RADIATION THERMOMETER

Temperature range -20 to 1000°C (-4 - 1832°F)

Temperature control during production process

compact units – Infrared – measuring transducer and electronic process unit in one case with light beam aiming device or viewfinder

Series KTR 1105

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

leaflet KTR 1105

http://www.maurer-ir.de

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Infrared Radiation Thermometer Series KTR1105

The non-contact temperature registration in the measuring technique is unthinkable without it. The **KTR 1105** is placing new standards in the **low temperature measuring technique.** It's developed with latest findings and manufactured in **up-dated technology.** Through using of Thermopile Detectors the usual used measuring light choppers are no more necessary. Therefore no moving parts are within these unit-series. A guarantee for **long durability.** For exact adjustment to the measuring point a **light beam aiming device** is available for short measuring distances - for longer measuring distances **an optical viewfinder.**

Examples for application:
ceramics, rubber, paper, wood, food, asphalt, building material, electronic components, plastics, plastic deep-drawing, lacquering drying, drying process..

unites types	target marking
KTR 1105	without
KTR 1105 - 1	light beam aiming device
KTR 1105 - 2	optical viewfinder

Temperature - Measuring - range
- linear -

No.	Meas. - range
1	-20 - 100°C (- 4 - 212°F)
2	0 - 100°C (32 - 212°F)
3	0 - 200°C (32 - 392°F)
4	0 - 300°C (32 - 572°F)
5	0 - 400°C (32 - 752°F)
6	0 - 500°C (32 - 932°F)
7	100 - 1000°C (212 - 1832°F)

(Special meas.range on request)

Technical Data

Measuring range	-20 - 1000°C (-4 - 1832°F)
Spectral range	8 - 14 µm
Response time	0,15 - 1,5 s
Accuracy	1 % ± 1°C
Reproducibility	3 ‰
Emissions factor	100 - 10 %
Working temperature	0°C - 50°C (32 - 122°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 - 10 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 (2,13x2,13x5,75 inch)
Weight	0,6 kg (1,32 lbs)
Protection grade	IP 65

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

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

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

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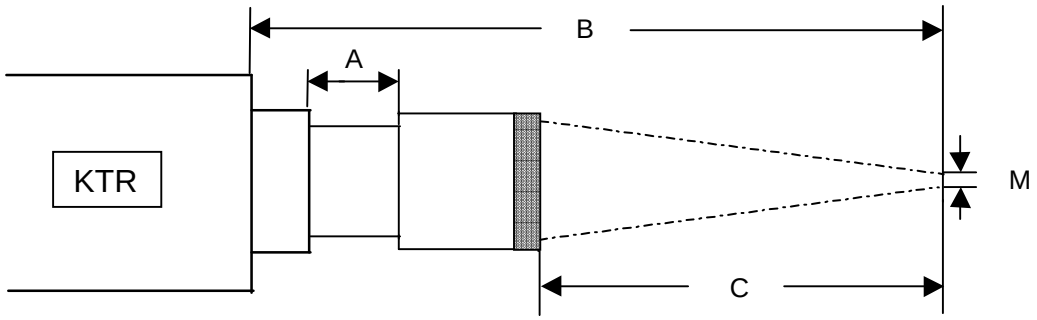
Optic tables for KTR 1105



Optic-type : IR 1040			
Lens : f =1,5“ ∅=1“ (12/04)			
Meas. aperture : 1,0 mm ∅			
Meas. distance from casing of meas. head B / mm	**Meas. distance from optic front edge C / mm**	**Optic extension A / mm**	**Target size M / mm=d**
150	116,0	13	3,0
200	170,8	8,2	4,0
300	273,9	5,1	6,8
400	375,2	3,8	9,5
500	476,5	2,5	12,2
600	577,3	1,7	15,5
700	677,7	1,3	17,3
800	778,2	0,8	20,6
900	878,6	0,4	24,2
1000	979,0	0	29,4

Optic-type : IR 1060-N			
Lens : f 2,5“ ∅=1“ (01/06)			
Meas. aperture : 1,0 mm ∅			
Meas. distance from casing of meas. head B / mm	**Meas. distance from optic front edge C / mm**	**Optic extension A / mm**	**Target size M / mm=d**
300	244	13	3,4
350	298	9,0	4,0
400	350,6	6,4	4,9
450	402,3	4,7	6,0
500	454	3,0	6,6
550	505	2,0	7,7
600	556	1,0	8,5
650	607	0	9,3
700	657	0	10
900	857	0	22,2

Optic-type : IR 1060-T			
Lens : f 2,5“ ∅=1“			
Meas. aperture : 1,0 mm ∅			
Meas. distance from casing of meas. head B / mm	**Meas. distance from optic front edge C / mm**	**Optic extension A / mm**	**Target size M / mm=d**
440	384	13	5,4
500	444,8	12,2	6,1
600	547,3	9,7	7,8
700	649,1	7,9	8,6
800	750,2	6,8	10,4
900	851	6	12
1000	951,3	5,7	13,6
1500	1452,2	4,8	21
2000	1952,6	4,4	29,8
3000	2954,5	2,5	42
4000	3955,6	1,4	60
5000	4956	1,0	75

Optic-type : IR 1040-M			
Lens : f 1,5“ ∅=1“			
Meas. aperture : 1,0 mm ∅			
Meas. distance from casing of meas. head B / mm	**Meas. distance from optic front edge C / mm**	**Optic extension A / mm**	**Target size M / mm=d**
103	60	0	1,5

Target=98 % of beam density of the surface

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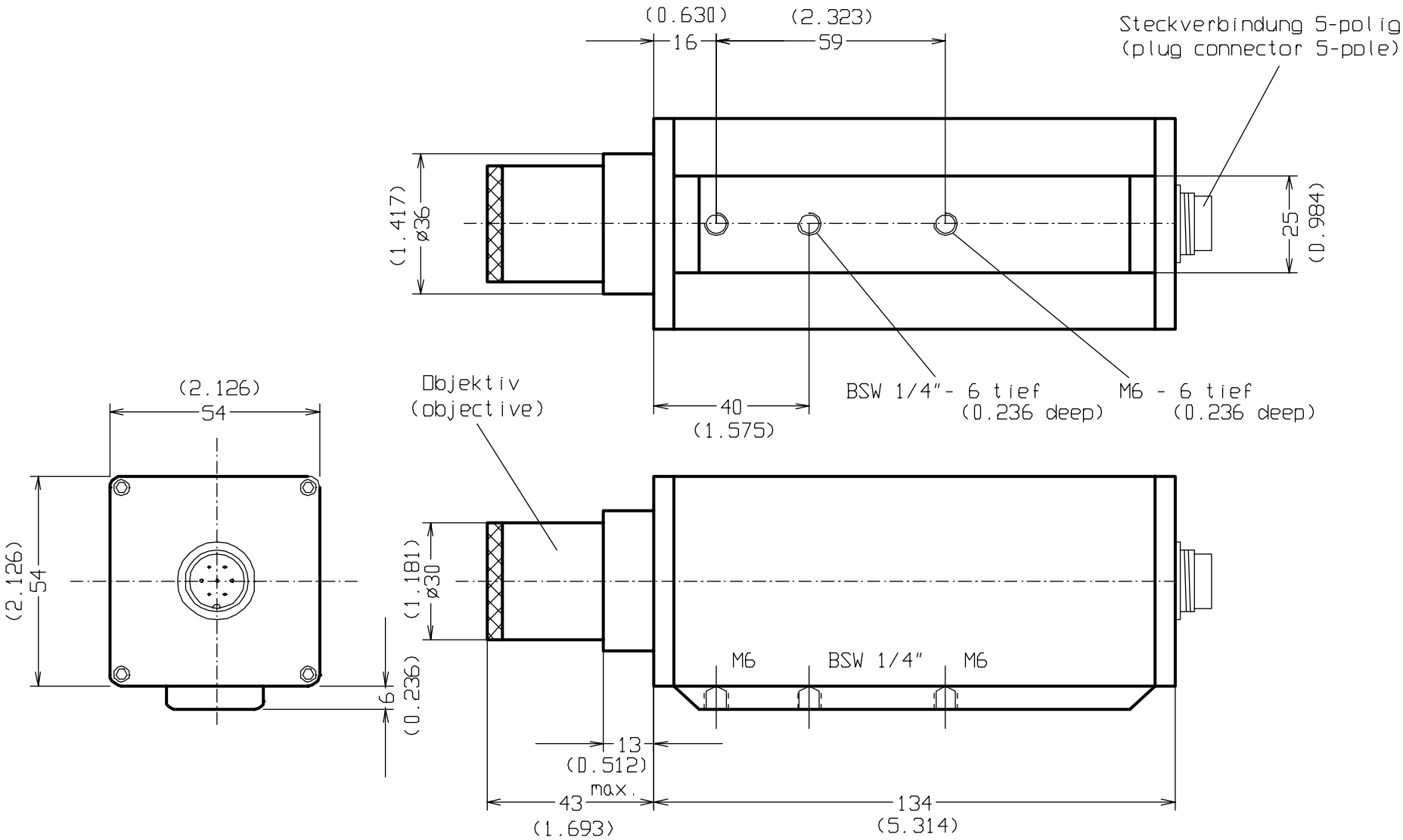

(xxx) - MaBe in Zoll
(dimensions inch)

						MaBstab 1:1	
						Fa.Dr. Maurer GmbH	
					Datum	Name	
				Bearb	30.11.95	Schlotterb.	STANDARDGEHÄUSE (standard case) KTR 1000
				Gepr			
				Norm			
						940302	Blatt Bl.
		11.06.03					
Zust	Änderung	Datum	Name				