Digital MAURER Pyrometer

KTRD 1075-HS

Measuring ranges 300 to 1500°C

HIGHSPEED UNIVERSAL DEVICE

Laser application

with light beam aiming device

Performance, precision and reliability - you can count on MAURER pyrometers. Benefit from maximum adaptability by choosing the right optics, accessories and the appropriate interface. Thus our pyrometer fits perfectly into existing systems.

The most important features and characteristics at a glance:

- Spectral range: 1,45 – 1,7 µm
- Ultra short response time of 100 µs
- Emissivity from 100 – 10 %, adjustable directly at the pyrometer or via interface
- Available with either green target light (LED / Laser) or viewfinder
- Green target light (LED) that is exactly identical to the actual measuring spot in position and size
- With Vario-optic for exact focusing on the measuring spot
- Use with digital and analogue output
- 1 limit output (open collector)
- Operating voltage 24 V DC
- Free Software (IR-LOG) for parameter setting, data recording and storage

Measuring Ranges

1. 300 – 1300 °C
2. 400 – 1500 °C

- Special measuring ranges upon request -

with viewfinder

Scope of Applications

Processing of steel, iron, non-ferrous metal and wires, as well as rolling, soldering, annealing, hardening, forging, transforming, induction heating, etc.

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Technical Data

Device type	KTRD 1075-1-HS	KTRD 1075-2-HS
Target marking	Light beam aiming device with LED (green) or laser	viewfinder
Response time	100 µs	
Spectral range	1,45 – 1,7 µm	
Measurement uncertainty	0,5 % ± 1 °C (ε = 1, Tu = 23°C, T95 = 1 s)	
Temperature dependence	0,05 % / °C	
Reproducibility	0,1 % ± 1 °C (ε = 1, Tu = 23°C, T95 = 1 s)	
Emissivity	100 – 10 %, adjustable directly at the pyrometer or via interface	
Resolution	< 0,1 % at the analogue output	< 0,1 °C at the interface
Operating / Storage temperature	0 – 50 °C, Optics 150 °C / -10 – 70 °C	32 – 140 °F, Optics 302 °F / 14 – 158 °F
Permissible humidity	35 – 85 % RH (non-condensing)	
Analogue output	0 – 20 mA / 4 – 20 mA (Load max. 500 Ω)	
Subranges	freely adjustable within measuring range	
1 limit output (open collector)	24 V 100 mA	
Interface	RS 232 ± 50 V isolated or RS 485 ± 70 V isolated Optional: PROFIBUS, PROFINET, Ethernet, EtherCAT, USB 2.0	
Maximum value memory	Maximum memory, peak value memory double, adjustable time and threshold value, erasing after time, external contact, by software, after every measuring object	
Supply voltage	24 V DC ± 10 %	
Power consumption	< 100 mA	
Device connection	12-pol. plug connector	
Dimensions (LxHxW) / Weight	54 x 54 x 147mm / 0,6 kg	
IP Code	IP65	

Configurations

- Version with optic: KTRD 1075
- Built-in digital display on the backside of the pyrometer
- Extensive selection of objectives, suitable for your application

Main Equipment

Electronic Equipment		Mechanical Equipment	
Connection cables	Power Supply 100-270 VAC – 24 VDC	Objectives	Mirror 90° for beam deflection
Electronic process units	PC-Box (USB-connection set)	Mounting parts	Blowing device
(Line-) Scanners		Cooling case	

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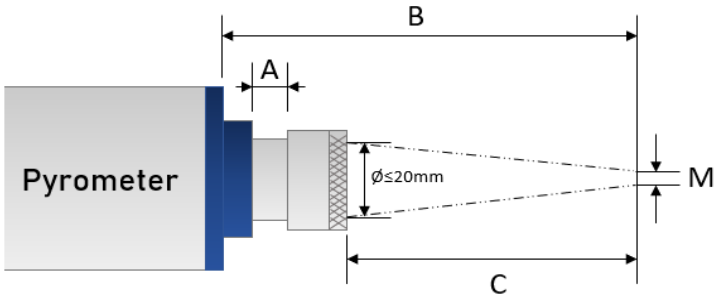
MAURER OPTOELEKTRONIK

Optics for MAURER Pyrometer

KTRD 1075-HS

OVERVIEW



Measuring range

1 + 2. Measuring aperture = 0,2 mm Spot size = M x 0,2

Special solutions upon request

Legend

A	Optic extraction
B	Measuring distance from housing
C	Measuring distance from optic front edge
M	Measuring spot size

Optics	A 1050-N1-7		
Lense	F 50, Ø 25,0mm		
Measuring aperture	Ø 1,0 mm		
B [mm]	C [mm]	A [mm]	M [mm]
190	147,0	13,0	2,6
200	161,3	8,7	2,8
210	173,5	6,5	3,0
220	185,6	4,4	3,4
230	197,2	2,8	3,6
240	208,1	1,9	4,0
255	225,0	0,0	4,2

Optics	A 1050-N2-7		
Lense	F 50, Ø 25,0mm		
Measuring aperture	Ø 1,0 mm		
B [mm]	C [mm]	A [mm]	M [mm]
210	154,0	13,0	3,0
220	166,1	10,9	3,2
240	188,9	8,1	3,8
260	210,5	6,5	4,4
280	232,1	4,9	5,0
300	253,4	3,6	5,4
320	274,4	2,6	6,0
340	295,2	1,8	6,4
360	315,9	1,1	7,0
380	336,5	0,5	7,4
400	357,0	0,0	8,0

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Optic table

MAURER OPTOELEKTRONIK

Optics	A 1060-N1-7
Lense	F 60, Ø 25,0mm
Measuring aperture	Ø 1,0 mm

B [mm]	C [mm]	A [mm]	M [mm]
285	229,0	13,0	3,2
300	245,5	11,5	3,6
350	299,7	7,3	4,4
400	352,5	4,5	5,2
450	404,4	2,6	6,2
500	455,7	1,3	7,2
550	506,7	0,3	8,2
570	527,0	0,0	8,8

Optics	A 1060-N2-7
Lense	F 60, Ø 25,0mm NIR
Measuring aperture	Ø 1,0 mm

B [mm]	C [mm]	A [mm]	M [mm]
310	254,0	13,0	4,0
350	296,5	10,5	5,0
400	349,0	8,0	6,0
500	452,0	5,0	8,0
600	534,0	3,0	10,0
700	655,0	2,0	12,0
800	755,8	1,2	13,6
900	856,4	0,6	14,6
1000	957,0	0,0	17,6

Optics	A 1060-T-7
Lense	F 60, Ø 25,0mm
Measuring aperture	Ø 1,0 mm

B [mm]	C [mm]	A [mm]	M [mm]
360	304	13,0	5,0
400	375,7	11,3	5,7
500	478,6	8,4	7,0
600	580,5	6,5	8,7
700	681,6	5,4	10,3
800	782,4	4,6	12,3
900	883,1	3,9	14,0
1000	983,7	3,3	16,0
1500	1485,0	2,0	24,3
2000	1985,5	1,5	33,0
3000	2986,2	0,8	50,0
4000	3986,5	0,5	68,3
5000	4986,7	0,3	86,7

Optics	A 1060-M-7
Lense	F 60, Ø 25,0mm
Measuring aperture	Ø 1,0 mm

B [mm]	C [mm]	A [mm]	M [mm]
96	53	0,0	1,0

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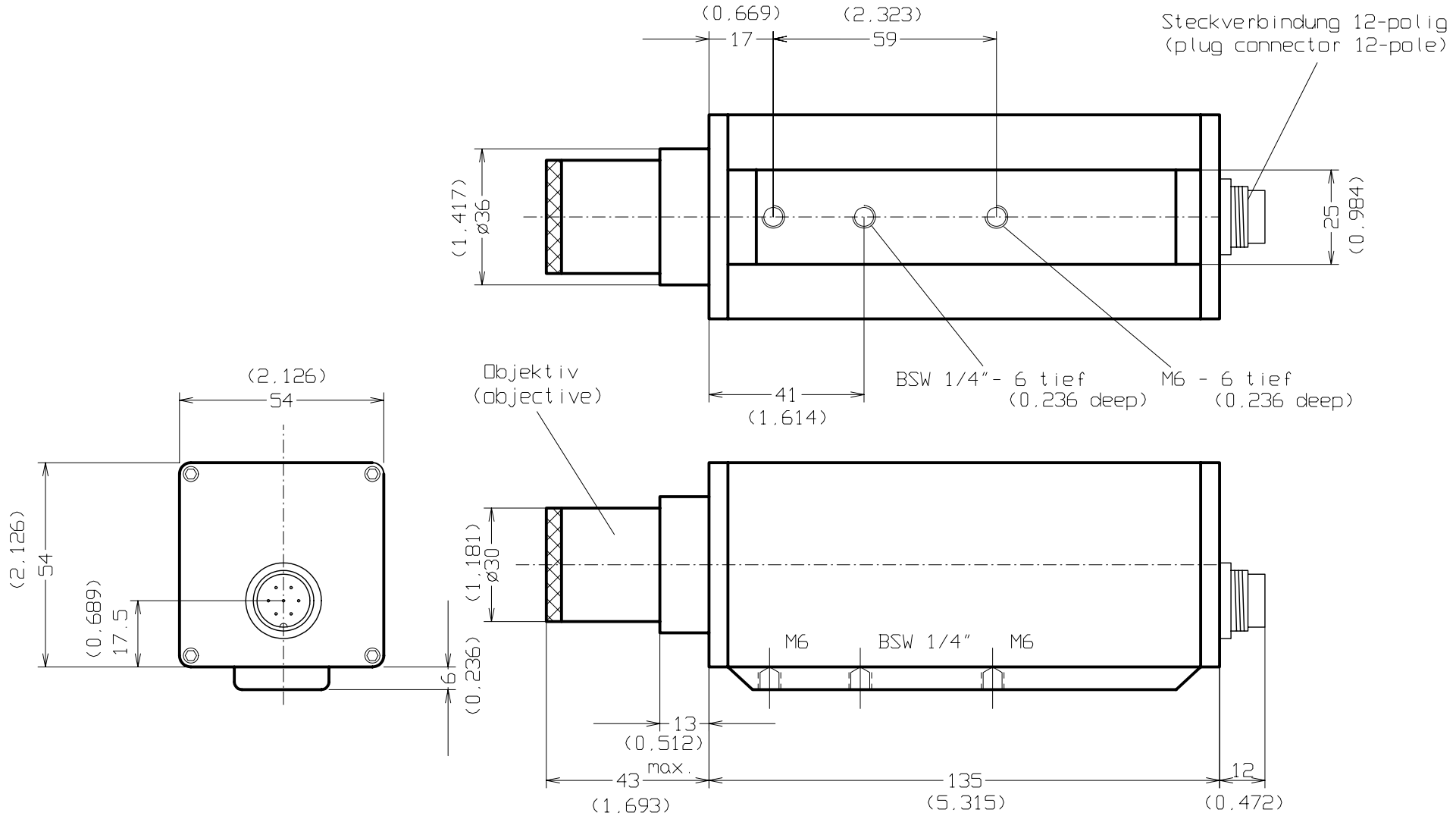

(xxx) - MaBe in Zoll
(dimensions inch)

					Datum	Name
				Bearb	25.02.10	Schlotterb.
				Gepr		
				Norm		
Zust	Änderung	Datum	Name			

MaBstab 1:1

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STANDARDGEHÄUSE (standard case)
KTRD 1000-1

100205

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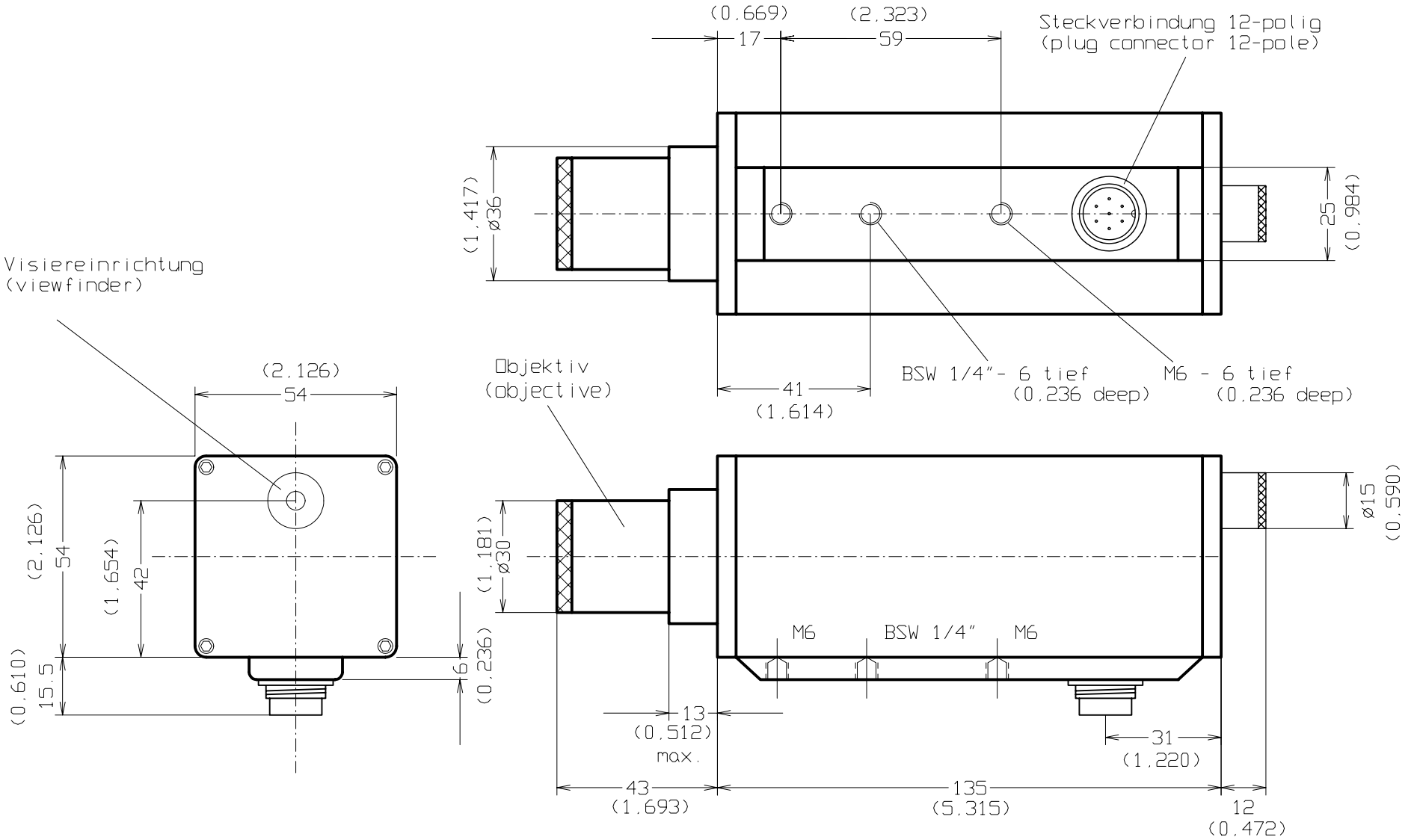

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MaBstab 1:1

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STANDARDGEHÄUSE (standard case)
KTRD 1000-2 Stecker 90° (connector 90°)
Visiereinrichtung (viewfinder)

100207

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