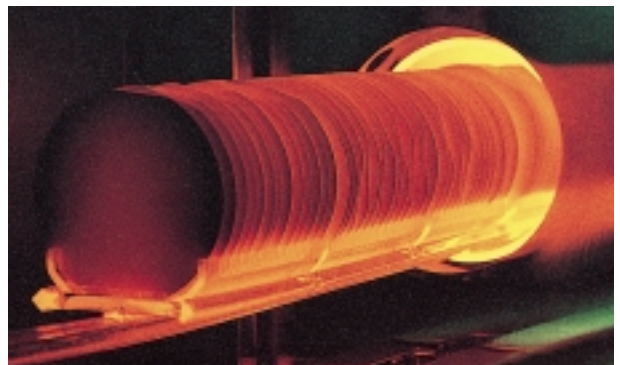
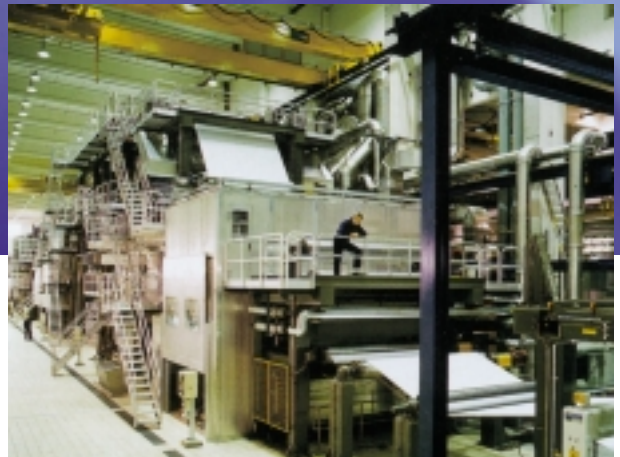


# Miniature Pyrometer Series CellaTemp® PM



- Measuring ranges 0 to +1200 °C
- Dimensions 36 x 20 x 52 mm
- Very good optical characteristics due to precision lenses with broad band antireflection coating
- Microcontroller controlled linearization
- External emissivity adjustment



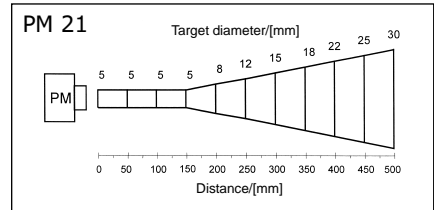
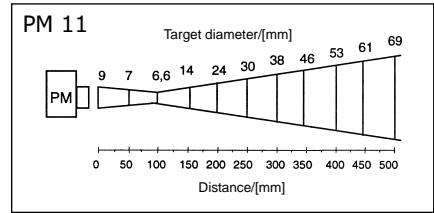
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MEASURING · CONTROL · SYSTEMS

The miniature-pyrometer CellaTemp® PM is as small as a thumb. The optic, complete electronic as well as the linearization and ambient temperature compensation are situated in a housing of only 36 x 20 x 52 mm. The linear analogue output can be easily connected to commercial digital displays, automatic controllers or to a PLC without any additional electronic.

The emissivity for the adjustment of the pyrometer to the radiation characteristics of the measuring object is externally adjustable.

Because of its non-hygroscopic precision lens and its waterproof metal housing, the CellaTemp® PM provides the user with exact and reliable measuring results even under very rough industrial conditions.

## Target Diagrams



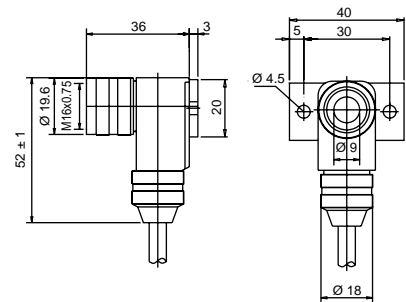
## Technical Data

Type	PM 11 AF 1	PM 11 AF 2	PM 21
Measuring range	AF 1:	0 to +200 °C	-
	AF 2:	-	0 to +400 °C
			+300 to +800 °C
Resolution	1.0 K	2.0 K	3.0 K
Repeatability	≤ 2.0 K	≤ 3.0 K	≤ 3.0 K
	(for ε = 1 and Tu = constant)		
Accuracy	≤ 3.0 K	≤ 1 % of reading +1 K or 4 K	≤ 5.0 K
	(for ε = 1 and Ta = 23 °C)		
Sensor	Thermopile		Photodiode
Spectral sensitivity	8 to 14 μm		1.0 to 1.7 μm
Distance ratio	15:1 at a measuring distance of 100 mm 6.4:1 at far distances		30:1
Target size	ø 6.6 mm at a measuring distance of 100 mm		ø 5 mm at a measuring distance of 150 mm
Analogue output	10 mV/°C linear		
	AF 1:	0-2 V	-
	AF 2:	-	0-4 V
			300 mV-800 mV
			700 mV-1200 mV
Response time	t90: 200 ms		t98: <200 ms
Load resistance	≥ 10 KΩ		
Admissible ambient temperature	0 to +60 °C with less accuracy up to 80 °C		
Storage temperature	-20 to +80 °C		
Temperature coefficient	≤ 0.07 % of reading/K or 0.1 K/K deviation to Ta = 23 °C		
Power supply	11-27 V DC ≤ 10 mA, ripple ≤ 200 mV		
Air moisture	Max. 95 % r. H. (non condensing)		
Dimensions	Pyrometer 36 x 20 x 52 mm (L x W x H) fixing plate 40 x 20 mm		
Housing material	nickel-plated metal		
Connection	Via cable 5 m		
Weight	Approx. 150 g		
Protection	IP 65 according to DIN 40050		
Adjustable Parameters			
Emissivity ε:	20-100 % adjustable		

## Accessories

- Axial air nozzle
- Mounting angle
- Power supply
- Digital display
- Calibration certificate

## Dimensioned drawing



CellaTemp® PM is a registered trade mark of KELLER HCW GmbH, Ibbenbüren, Germany.



**KELLER HCW GmbH – a company of the CERIC Groupe**



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