

IMPAC IPE 140/39

Addendum to IPE 140 Data Sheet

Special version of IPE 140 with a spectral range of $3.9\ \mu\text{m}$ for measurements of metal parts in flame-heated furnaces.



The Impac® IPE 140/39 is a special pyrometer for non-contact temperature measurement of metal parts in flame-heated furnaces or penetrating measurement into glass. Like the IPE 140, the IPE 140/39 is a highly accurate digital pyrometer. The narrow spectral range of $3.9\ \mu\text{m}$ avoids the influence of humidity and CO_2 and enables a correct measurement through flames and combustion gases. Also, humidity and CO_2 do not have any influence on measurements with long measuring distances.

Another application is the measurement of glass if a small penetration into the glass is necessary (e.g. glass drop). Measurement errors caused by partially cooled down surfaces can be avoided. For optimal match of the instrument to the application, three different focusable optics with extremely small spot sizes are available.

PRODUCT HIGHLIGHTS

- Temperature ranges between 20 to 1800°C (68 to 3272°F)
- Measurement through flames and combustion gas without influencing the measurement
- Penetrating measurement into glass
- Reduction of emissivity errors

AT A GLANCE

Temperature Ranges

20 to 700°C (MB 7)
75 to 1200°C (MB 12)
300 to 1450°C (MB 14.5S)
200 to 1800°C (MB 18)

Spectral Range

$3.9\ \mu\text{m}$

Optics

3 focusable optics
a = 105 to 150 mm
a = 200 to 440 mm
a = 345 to 4300 mm

REFERENCE NUMBERS

IPE 140/34

Temperature Range	Laser Targeting Light	View Finder
20 to 700°C (68 to 1292°F) (MB 7)	3 875 840	3 875 850
75 to 1200°C (167 to 2192°F) (MB 12)	3 875 760	3 875 770
300 to 1450°C (572 to 2642°F) (MB 14.5S)	3 875 860	3 875 870
200 to 1800°C (392 to 3272°F)(MB 18)	3 875 960	-

TECHNICAL DATA¹

Temperature Ranges	20 to 700°C (68 to 1292°F) (MB 7)
	75 to 1200°C (167 to 2192°F) (MB 12)
	300 to 1450°C (572 to 2642°F) (MB 14.5S)
	200 to 1800°C (392 to 3272°F)(MB 18)
Spectral Range	3.9 µm

¹ Different from IPE 140

OPTICS

IPE 140/34

Optics	Measuring Distance a [mm]	Spot diameter M [mm]		
		MB 7	MB 12	MB 14.5S, MB 18
1-PE	105	2.4	0.9	0.7
	120	2.9	1	0.8
	150	4.1	1.4	1
2-PE	200	4.2	1.4	1.1
	260	5.7	1.8	1.3
	440	11.4	3.5	2.5
3-PE	345	6.8	2.3	1.7
	1000	23	7.1	5
	4300	105	32	22



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