IMPAC IPE 140/45

Addendum to IPE 140 Data Sheet

Special version of IPE 140 in a spectral range of the CO_2 absorption band

The Impac® IPE 140/45 is a special pyrometer for the temperature measurement of hot, CO_2 containing combustion gas. The pyrometer is able to measure hot combustion gas (with typically approx. 10% CO_2) with a thickness of 40 cm.

Like the basic IPE 140, the IPE 140/45 is a highly accurate digital pyrometer. The narrow spectral range in the CO_2 absorption band enables the measurement of flames and hot combustion gases. For optimal match of the instrument to the application three different focusable optics are available.

PRODUCT HIGHLIGHTS

- Temperature range of 400 to 2000°C (752 to 3632°F)
- Measurement of flame temperatures
- Measurement of combustion gas temperatures

AT A GLANCE

Temperature Ranges

400 to 2000°C (752 to 3632°F)
(MB 20)

Spectral Range

CO_2 absorption band for hot CO_2 gases

Optics

3 focusable optics
a = 115 to 170 mm
a = 210 to 500 mm
a = 360 to 10000 mm

REFERENCE NUMBERS

IPE 140/45		
Temperature Range	**Laser Targeting Light**	**View Finder**
400 to 2000°C (752 to 3632°F) (MB 20)	3 875 880	3 875 890

TECHNICAL DATA[1]

Temperature Ranges	400 to 2000°C (752 to 3632°F) (MB 20)
Spectral Range	CO_2 absorption band for hot CO_2 gas
Uncertainty (T_{amb}=25°C, ε=1, t_{90}=1s)	< 1300°C: 0.6% of reading in °C
	> 1300°C: 0.8% of reading in °C

1 Different from IPE 140

OPTICS

IPE 140/45			
Optics	**Measuring Distance a [mm]**	**Spot diameter M_{90} [mm]**	**Objective Length S [mm]**
		MB 20	
1-PE	115	1.1	26
	135	1.3	13
	170	1.6	0
2-PE	210	1.8	26
	280	2.6	13
	500	4.9	0
3-PE	360	3	26
	625	5.6	13
	2000	20	4
	10,000	100	0
Aperture D [mm]		14 to 17	

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