

Calibration source with a single fixed temperature for inspection of pyrometers

IRC 45 ... IRC 150
Infrared calibration source



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- 9 different types for fixed adjusted temperatures of 45°C, 70°C, 75°C, 95°C, 100°C, 110°C, 120°C, 140°C or 150°C
- High emissivity: 98%
- Large aperture diameter: 50.8 mm
- Short warm-up time
- High temperature stability
- Small dimensions
- Stainless steel housing



Technical Data:

Fixed temperature (depending on type):	45°C, 70°C, 75°C, 95°C, 100°C, 110°C, 120°C, 140°C or 150°C	Operating temperature:	0 ... 40°C, temporary (2 min) up to 70°C
Emissivity ε:	0.98 ±0.004 (for λ = 2 ... 5.4 μm λ = 8 ... 14 μm)	Storage temperature:	0 ... 70°C
Aperture diameter:	50.8 mm	Relative humidity:	10 ... 85%, no condensing conditions
Warm-up time:	max. 5 (IRC 45) to 30 min (IRC 150)	Status LED:	green: warm-up orange: ready for operation red: overheating
Temperature uncertainty:	0.4°C for T ₁₁ = 10...40°C (IRC 45-120) 0.6°C for T ₁₁ = 0...10°C (IRC 45-120) 0.5°C for T ₁₁ = 10...40°C (IRC 140-150) 0.7°C for T _U = 0...10°C (IRC 140-150)	Power supply:	24 V DC, max. 1 A
Repeatability:	0.2°C	Protection class:	IP50 (EN 60529)
Stability:	0.1°C	Weight:	0.85 kg
Temperature uniformity:	0.2°C (central area Ø 45 mm)	Dimensions:	64.5 x 81.0 x 133.5 (Ø x D x H)
		CE sign:	according to EU directives about electromagnetic immunity

Reference numbers:

3 891 130	calibration source IRC 45	3 891 160	calibration source IRC 95	3 891 410	calibration source IRC 120
3 891 140	calibration source IRC 70	3 891 170	calibration source IRC 100	3 891 190	calibration source IRC 140
3 891 150	calibration source IRC 75	3 891 180	calibration source IRC 110	3 891 200	calibration source IRC 150

3 890 420 plastic carrying bag

Scope of delivery: calibration source, stand, power supply 230 V AC ⇒ 24 V DC, user manual, works certificate

The calibration sources of type **IRC 45** to **IRC 150** are instruments for inspection of the measurement accuracy of pyrometers (radiation thermometers) at a fixed temperature value. The highly accurate controlling ensures a constant and stable heating of the large emitter surface with a

high temperature uniformity with a maximum deviation of 0.2°C. This enables in combination with the high emissivity of the emitter surface at 98% also the exact verification of pyrometers with larger spot sizes.

The robust stainless steel design guarantees the operation even under rough industrial environments. The compact dimensions also enables the checking of fixed installed pyrometers at the measuring location.