



by **KELLER**
infrared
temperature
solutions **ITS**



APPLICATION Concrete Mixers

Temperature measurements
at the chute of concrete mixers



5 years warranty

QUALITY
made in Germany



Description of the application



In concrete mixing plants the temperature is measured at the chute of the mixer immediately before loading the concrete on trucks. Especially for security concrete used for the construction of bridges, tunnels, etc., the processing temperature must lie within prescribed ranges. The measured temperature is documented to allow later verification, if required.

Advantage / benefit

To carry out temperature measurements at concrete mixers a measuring system is needed that withstands rough ambient conditions. It is the aim to monitor the temperature of the mixture during loading with a device that needs no maintenance and assures process reliability. The temperature is documented and serves as proof of quality during the production process.

Solution

Pyrometers are ideal devices to capture the temperature of the flowing material. Without contact and from a safe distance they detect the infrared radiation emitted from the material and calculate the temperature.

Measuring system

Type	PK 18 AF 1
Measuring range	0 - 500 °C / 32 - 932 °F
Output	0/4 - 20 mA / switching output
Configuration parameters	Emissivity, smoothing filter, peak picker, key lock, temperature units °C / °F, temperature simulation, test function
Dimensions	Ø 30 x 183 mm
Assembly	M30 x 1.5 mm x 35 mm thread
Supply	24 V DC
Display	4-digit LED display (height of digits 8 mm) 1 x LED switching status 2 x LED unit
Protection	IP 65 (splash-water proof)
Housing material	V2A (1.4305)

Standard pyrometers, especially their lenses, are at risk of being damaged by aggressive vapours and dust. The infrared thermometer CellaTemp PK18 was especially developed for measurements at asphalt and concrete mixing plants. It is housed in a stainless steel case and is equipped with a special lens. The extremely resistant lens surface offers a high level of protection against contamination by aggressive dusts. Installed in the mounting assembly PK01-014 with optimised flow characteristics, a lens purging system and a supplementary tube, the thermometer guarantees safe temperature measurements for many years to come.

When properly operated, the measuring system works wear-free and need no maintenance. The integrated digital display in the infrared thermometer is very useful during commissioning and maintenance.

The insulation tube PS 01/K is designed for thermal/refrigeration and electrical insulation of the measuring system from the complete installation. The analogue output signal of 0(4) – 20 mA transmits the measurement readings to the PLC.

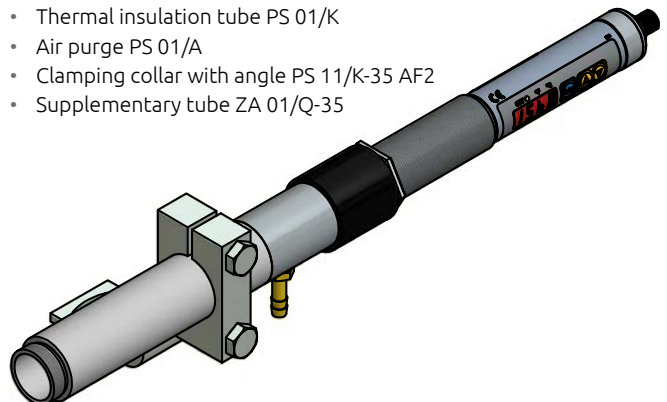


Accessories

Mounting assembly PK 01-014

consisting of:

- Thermal insulation tube PS 01/K
- Air purge PS 01/A
- Clamping collar with angle PS 11/K-35 AF2
- Supplementary tube ZA 01/Q-35



Other products



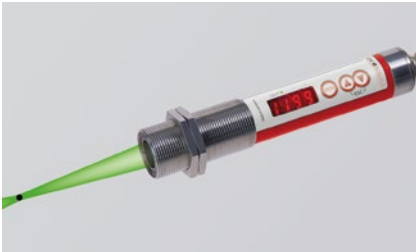
CellaPort PT

Portable single-colour and two-colour pyrometers with through-the-lens sighting, laser spot light and USB interface.



CellaCast PT

Portable pyrometer for non-contact temperature measurement of molten metal at automated casting machines and blast furnaces.



CellaTemp® PK(L)

Compact infrared thermometer for cramped environments. Optional with LED spot light.



CellaTemp® PKF

Compact infrared thermometer with optical fibre and optical sensor head.



CellaTemp® PX

Pyrometers with IO-Link interface, focusable lens, through the lens sighting or laser spot light.



CellaTemp® PX-LWL

Pyrometers with IO-Link interface, fibre optics, focusable measuring heads and laser spot light.



Mikro PV

Intensity comparison pyrometer for ultra accurate measurement.



CellaSwitch

Compact infrared switch with LED display and auto-diagnostics.

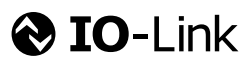
Today, Pyrometer Instrument Company remains a prominent leader in the development of precision temperature measurement instruments for space, defense, science and industry and is the only US manufacturer of traditional disappearing filament pyrometers. In its 75-year history, it has led the way in solving difficult hot-temperature measurement challenges.

With its very large product range of more than 250 models and measuring systems Pyrometer LLC offers solutions for all standard applications and a variety of special measuring tasks.

Following the company philosophy, the key focus in the development and production of the devices is set to the high measuring accuracy and reliability. Therefore, Pyrometer LLC grants a warranty of 5 years on its products.



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