

# KELLER

*infrared  
temperature  
solutions*

## ITS

### N°1

in terms of  
ACCURACY  
RELIABILITY  
INNOVATION



## Application Concrete Mixers

Temperature measurements at the chute  
of concrete mixers

## 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.

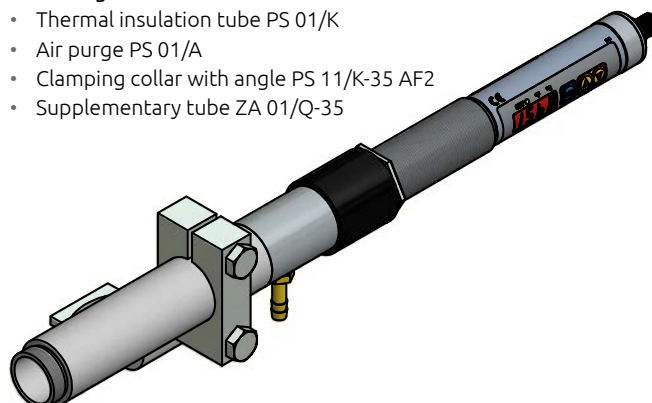


## Accessories

### 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

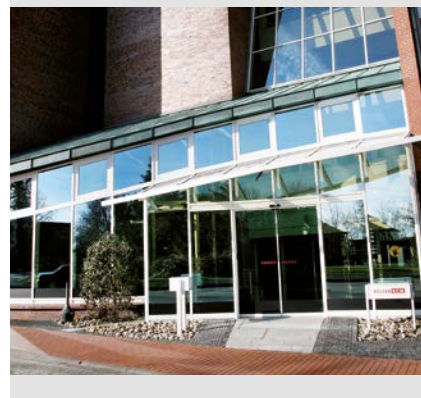
Compact infrared switch with LED display and auto-diagnostics.

Since 1967, the Division Infrared Thermometer Solutions (ITS) of KELLER HCW GmbH develops and manufactures precision instruments and systems solutions for non-contact temperature measurements. Thanks to the continuous development of its range, KELLER ITS now is one of the leading providers for infrared thermometers and pyrometers worldwide.

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

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

A global network of distributors and service points ensures competent and personal consultation on site.





- Headquarters
- Sales and Service Center
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Keller HCW GmbH  
Infrared Temperature Solutions (ITS)  
Carl-Keller-Straße 2-10  
49479 Ibbenbüren-Laggenbeck  
Germany

[www.keller.de/its](http://www.keller.de/its)  
Tel. +49 (0) 5451 850  
Fax +49 (0) 5451 85412  
[its@keller.de](mailto:its@keller.de)

## Distributor



INOR Transmitter Oy  
Unikkotie 13  
FI-01300 Vantaa  
Puhelin +358 10 4217900  
Faksi +358 10 4217901  
[myynti@inor.fi](mailto:myynti@inor.fi)