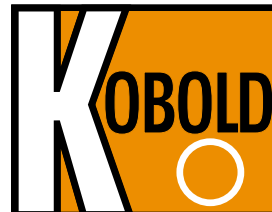
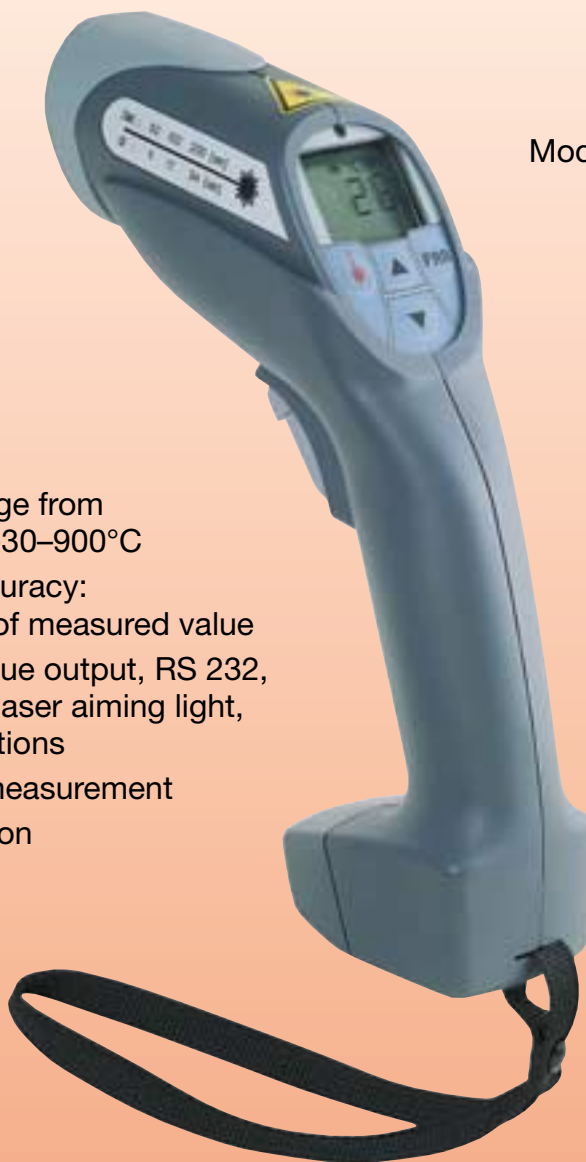


Infrared Hand-Held Thermometers



measuring
•
monitoring
•
analysing



Model: TIR-H...

- Measuring range from -20–500°C to -30–900°C
- Measuring accuracy: ±1% to ± 2% of measured value
- Option: analogue output, RS 232, data memory, laser aiming light, statistical functions
- Non-contact measurement
- Simple operation

KOBOLD offices exist in the following countries:

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Model:
TIR-H...

Application

The series TIR infrared measuring instruments measure the surface temperature of the most varied materials and liquids in seconds in a non-contacting and non-interacting way. Due to state-of-the-art microprocessor technology, the devices are compact and easy to operate. The measuring position is targeted with a laser pointer or an optical sight, the trigger is pressed and the measurement result is read on a large display.

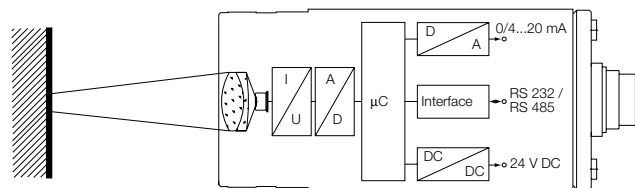


Advantages

- Unbeatable accuracy
- Non-contact measurement, thus short measuring time and no frictional heat
- Safe operation, because of distance from danger zone
- Isolated measuring by utilizing infrared radiation, also on surfaces that are bad conductors of heat.
- Measurements at places that are difficult to access
- Measurements on rotating and moving objects
- Long-term stable, zero-drift measurements
- Maintenance-free

Method of operation

The non-contact temperature measurement is based on the physical effect that every physical object emits electromagnetic radiation when heated. The radiated energy and its characteristic wavelength depends on the temperature of the surface of the target.



The heat radiation can be seen with the naked eye above approximately 550°C. The target is then said to glow. Radiation below the light spectrum of red light is called infrared radiation.

Infrared measuring systems are able to concentrate infrared radiation with a suitable system of lens and to convert it to electrical signals. The microprocessor receives the radiation characteristics of the target in the form of emittance. The microprocessor outputs the measured value in digital form to the display or converts it to an analogue signal.

Design

Due to the rapid pace of technological development, highly sensitive and stable infrared detectors are available, with which low temperatures (even well below freezing) can be determined by non-contacting means.

The downstream microprocessor-based electronics linearizes the electrical signals and mathematically compensated for material and surface-dependant influences with the set emittance.

Device programme

Battery-powered hand-held devices

- Model TIR-HA
-30 to +300°C
emittance 0.50–1.0 (adjustable)
- Model TIR-HN
-20 to +500°C to -30 to +900°C
emittance 0.10–1.0 (adjustable)
Options: laser, RS 232, data memory
statistical functions