

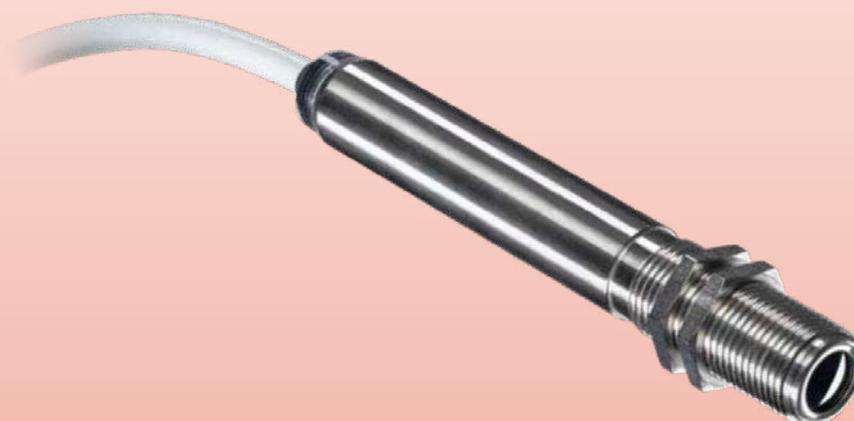


Infrared Pyrometer

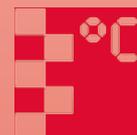


measuring
•
monitoring
•
analysing

TIN-SS



- Temperature range: -50 °C ... +1030 °C
- Response time: 14 ms
- Optical Resolution: 15:1
- Green LED alarm indication, aiming support, selfdiagnostic or temperature code indication
- Usable up to 80 °C ambient temperature without cooling
- Several outputs selectable: 0 - 10V or 0 - 5V free scalable or thermocouple type K, alarm output or digital output
- Easy adjustment via Windows software
- Power supply: 5 - 30 V_{DC}



T2

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Description

The infrared pyrometer TIN-SS is perfectly suited for temperature measurement in small and narrow environments. The robust measuring heads have been developed for use in temperature ranges from -50 °C to 1,030 °C and can be employed in ambient temperatures of up to 80 °C without additional cooling.

The inexpensive IR pyrometers are perfectly suited for OEM solutions. They also work ideally for multiple employments of infrared measurement points. The plug version optris CSmed LT additionally allows for a quick assembly and removal, e.g. for regular calibration of medical devices.

Technical Details

General Specifications

Material:	Stainless steel
Environmental rating:	IP 63
Ambient temperature:	-20...+80 °C
Storage temperature:	-40...+85 °C
Relative humidity:	10-95 %, non condensing
Vibration:	IEC 68-2-6: 3 G, 11-200 Hz, any axis
Shock:	IEC 68-2-27: 50 G, 11 ms, any axis
Weight:	58 g

Electrical Specifications

Output / analog:	Selectable: 0-5V or 0-10V free scalable or thermocouple type K/ alarm with adjustable voltage levels
Output / alarm:	0-30V/50 mA (open collector)
3-state alarm output:	Adjustable threshold values and voltage level for: no alarm, pre-alarm, alarm
Output / digital:	Uni/ bidirectional, 9,6 / 115,2 kBaud (adjustable via software), 0/3 V digital level/ USB optional
Input (0-10 V):	Programmable functional input for external emissivity setting / ambient temperature adjustment, triggered signal output or peak-hold function

LED-functions:	Alarm indication, automatic aiming support, self diagnostic, temperature indication (via. temp.code)
Cable length:	3 m
Power supply:	5-30 V _{DC}
Current draw:	4 mA (without LED) / 10 mA

Measurement Specifications

Temperature range (scalable via software):	-50...+1030 °C
Spectral range:	8 - 14 µm
Optical resolution (90 % energy):	15:1
CF-lens (optional):	0,8 mm @ 10 mm
System accuracy (at ambient temp. 23 ±5 °C):	±1,5 % or ±1,5 °C ¹⁾
Repeatability (at ambient temp. 23 ±5 °C):	±0,75 % or ±0,75 °C ¹⁾
Temperature coefficient:	±0,05 K/K or ±0,05 % / K ²⁾
NETD:	50 mK ³⁾
Response time (90 %):	14 ms (adjustable up to 999 s)
Emissivity / Gain (adjustable via 0-10V _{DC} input or software):	0,100 - 1,100
Transmissivity (adjustable via software):	0,100 - 1,100
Signal processing (parameter adjustable via software):	Peak hold, valley hold, average; extended hold function with threshold and hysteresis
Software:	for Windows®, download at www.kobold.com/qr/TIN

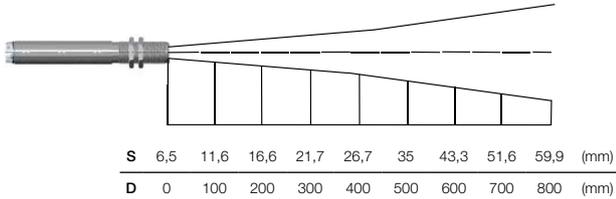
¹⁾ Object temperature > 0°C ; whichever is greater
²⁾ For ambient temperatures <18°C and >28°C; whichever is greater
³⁾ At time constant 200 ms and T_{obj} 200°C

Order Details Model TIN-SS (Example: TIN-SST3V1530)

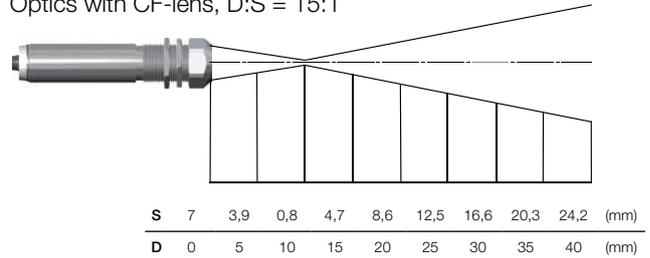
Model	Measuring range	Analog output	Optics / Spectral range	Cable length	Laser
TIN-SS = compact pyrometer (standard)	T3 = -50...+1030 °C	V = selectable: 0-5V or 0-10V free scalable or thermoelement type K	15 = 15:1/ 8-14 µm	3 = 3 m	0 = without laser pointer

Optical Specifications

Optics, D:S = 15:1

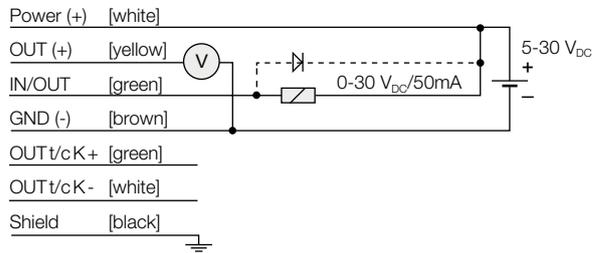


Optics with CF-lens, D:S = 15:1

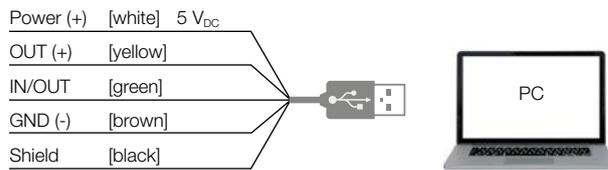


Connections

Connection analog with open collector alarm output (e.g. to actuate a relay)



Connection digital with the optional USB-adaptor **TIN-ZSIA**

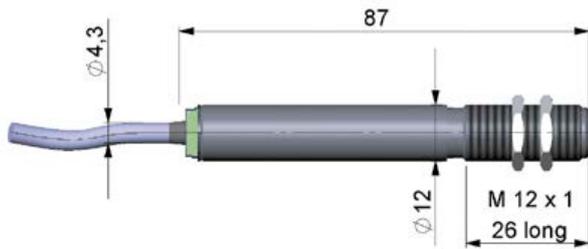


Accessories for TIN

Designation	Code	Description	Image
TIN-Z...	TCF	CF-lens for TIN-SS/-SH	
	TFB	Mounting bracket, fixed for TIN-SS/-SH, adjustable in one axis	
	TAB	Mounting bracket, fixed for TIN-SS/-SH, adjustable in two axis	
	SIA	USB Interfacekit for TIN-SS with Windows Software	
	TLS	Laser sighting aid for TIN-SS (battery supply)	
	TF2	Mounting bracket, for TIN-SS/-SH, adjustable in one axis, probe and laser sighting aid	
	TAP	Air purge collar for TIN-SS/-SH, laminar, with mounting fork, adjustable in one axis	

Dimensions / Accessories (examples) [mm]

Dimensions TIN-SS

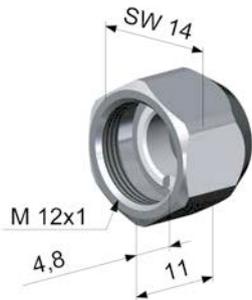


Model TIN-ZSIA:

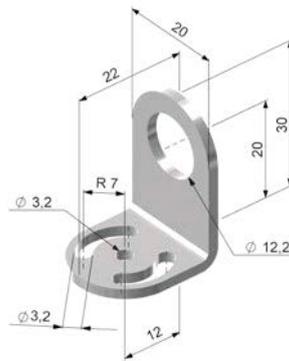
USB Interface Kit with Micro-USB plug and adapter USB-C and USB-A (Software Download at www.kobold.com/qr/TIN)



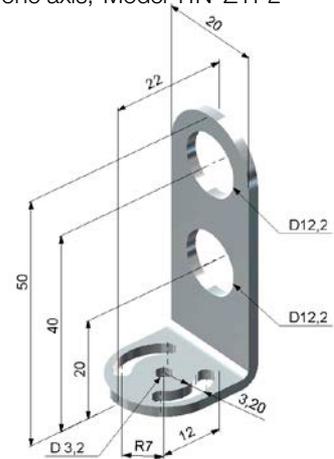
CF-lens Model TIN-ZTCF



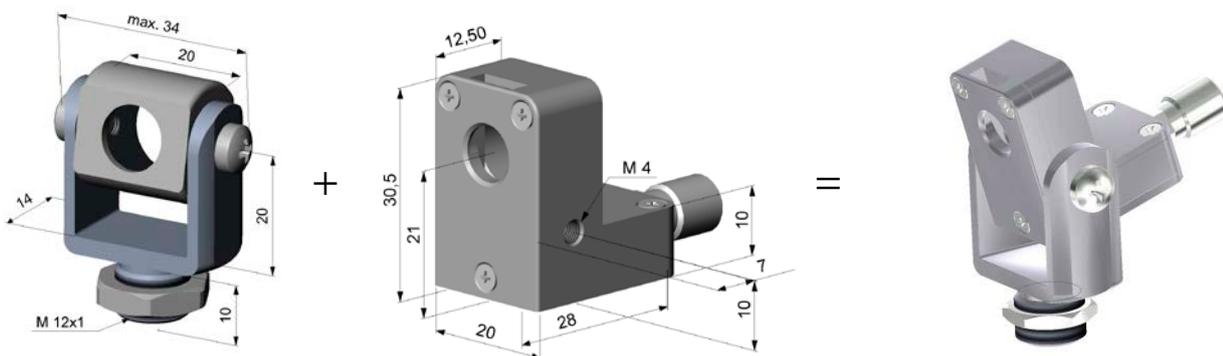
Mounting bracket, fixed Model TIN-ZTFB



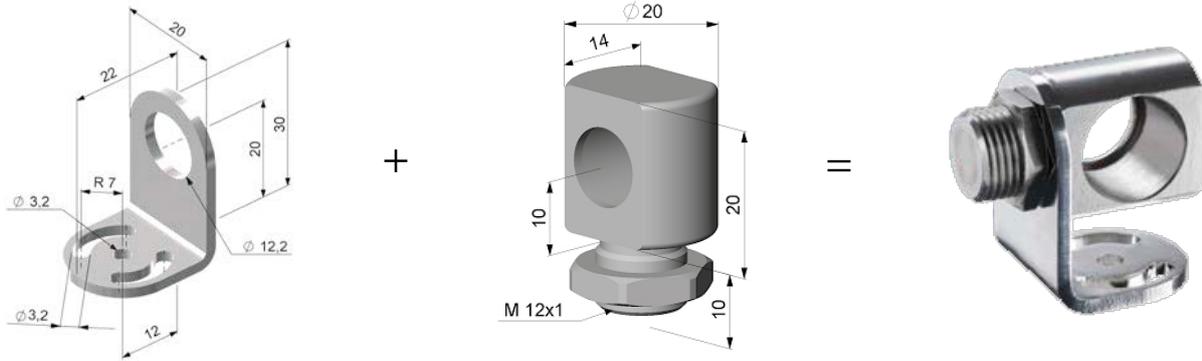
Mounting bracket, adjustable in one axis, Model TIN-ZTF2



Free blowing offset, laminar, with mounting fork, adjustable in one axis, Model TIN-ZTAP



Mounting bracket, fixed for TIN-SS/-SH, adjustable in one axis,
Model TIN-ZTAB



Laser sighting aid Model TIN-ZTLS

