

**Non-contact temperature measurement of plastic films from 50 to 400 °C (122 °F to 752 °F)**

**Features:**

- Miniaturized infrared thermometer with a spectral range of 3.43 μm for precise temperature measurements of thin plastic films like PE, PP, PS
- Robust and usable in up to 75 °C (167 °F) ambient temperature without cooling
- Separate electronics with easily accessible programming keys and LCD backlit display
- Selectable analog output: 0/4 - 20 mA, 0 - 5 V, 0 - 10 V, thermocouple type K or J
- Optional USB, RS485, RS232 interface, relay outputs (2 x optically isolated), CAN-Bus, Profibus DP, Ethernet



**General specifications**

Environmental rating	IP 65 (NEMA-4)
Ambient temperature	0 °C ... 75 °C (32 °F ... 167 °F) (sensing head) 0 °C ... 75 °C (32 °F ... 167 °F) (electronics)
Storage temperature	-40 °C ... 85 °C (-40 °F ... 176 °F) (sensing head) -40 °C ... 85 °C (-40 °F ... 176 °F) (electronics)
Relative humidity	10 – 95 %, non condensing
Vibration (sensor)	IEC 60068-2-6 (sinus shaped) IEC 60068-2-64 (broadband noise)
Shock (sensor)	IEC 60068-2-27 (25G and 50G)
Weight	200 g (7.1 oz) (head with massive housing) 420 g (14.8 oz) (electronics)

**Electrical Specifications**

Outputs / analog	0/4 – 20 mA, 0 – 5/10 V, thermocouple J, K, alarm
Output / alarm	24 V / 50 mA (open collector)
Optional	Relay: 2 x 60 V DC / 42 V AC <sub>eff</sub> ; 0.4 A; optically isolated
Outputs / digital	USB, RS232, RS485, CAN, Profibus DP, Ethernet (optional)
Output impedances	mA max. 500 Ω (with 8 – 36 V DC) mV min. 100 kΩ load impedance, thermocouple 20 Ω
Inputs	Programmable functional inputs for external emissivity adjustment, ambient temperature compensation, trigger (reset of hold functions)
Cable length	3 m (standard), 8 m (9.8 ft [standard], 26.2 ft)
Power Supply	8 – 36 V DC
Current draw	Max. 100 mA

**Measurement specifications**

Temperature range (scalable via programming keys or software)	50 °C ... 400 °C (122 °F ... 752 °F)
Spectral range	3.43 μm
Optical resolution (90 % energy)	15:1
System accuracy <sup>2)</sup> (at ambient temp. 23 ± 5 °C) (73 ± 9 °F)	± 3 °C or ± 1 % <sup>3)</sup> ± 5.4 °F or ± 1 % <sup>3)</sup>
Repeatability (at ambient temp. 23 ± 5 °C) (73 ± 9 °F)	± 1.5 °C ± 2.7 °F
NETD <sup>4)</sup>	0.1 K
Exposure time (90% signal)	100 ms
Emissivity/ Gain (adjustable via programming keys or software)	0.100 – 1.100
Transmissivity/ Gain (adjustable via programming keys or software)	0.100 – 1.100
Signal processing (parameter adjustable via programming keys or software, respectively)	Peak hold, valley hold, average; extended hold function with threshold and hysteresis
Software	optris Compact Connect

<sup>1)</sup>  $T_{object} > T_{sensing\ head} + 25\text{ °C} (+77\text{ °F})$

<sup>2)</sup> Specification valid at  $T_{Object} \geq 75\text{ °C} (\geq 167\text{ °F})$

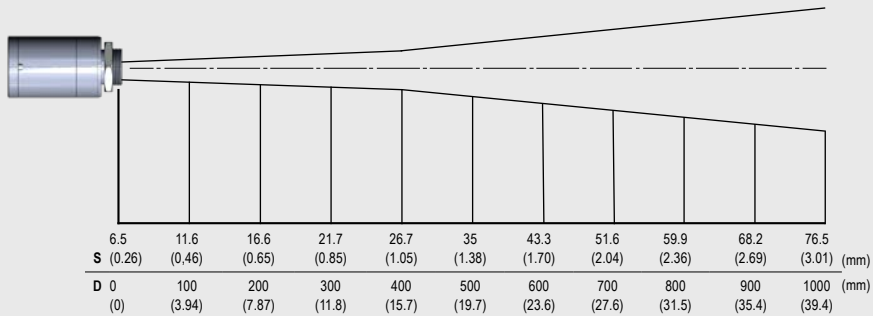
<sup>3)</sup> Whichever is greater

<sup>4)</sup> 125 °C  $T_{obj}$ , 100 ms time constant (257 °C  $T_{obj}$ , 100 ms time constant)

# optris CT P3

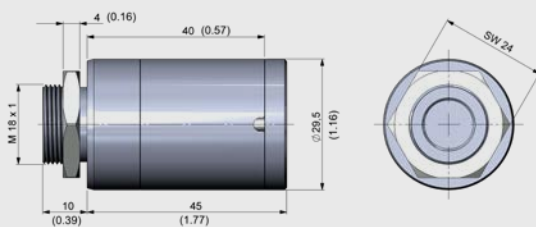
## Optical specifications

Optics, D:S = 15:1

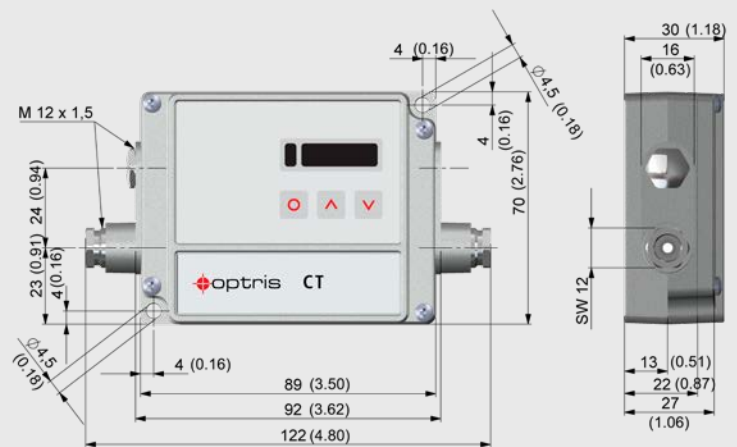


## Dimensions

Dimensions massive housing incl. sensing head



Electronics

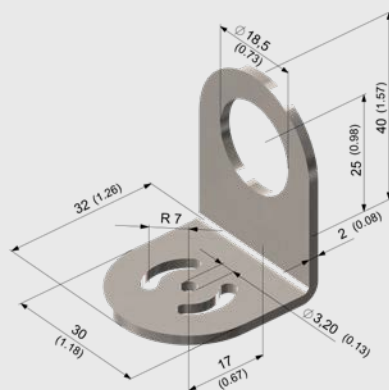


## Accessories (examples)

CF-lens with external thread (ACCTCFP3E)



Mounting bracket, adjustable in one axis (ACCTFBMH)



Air purge collar (ACCTAPMH)

