

PSC-T54U

INFRARED PYROMETER FOR GLASS INDUSTRY APPLICATIONS



OVERVIEW

The PSC-T54U is designed for measuring temperatures specifically for ultra-thin glass surfaces (<1 mm thickness). Offering a wide temperature ranges from 200 to 1200°C (662 to 2192°F), the PSC-T54U is well-suited for “Draw Down” or “Fusion Draw” manufacturing methods for exceptionally thin glass products used in consumer electronics, touch screens, and more.

The robust and compact stainless steel housing ensures operation under even the most difficult ambient conditions. With a minimum response time of only 60 ms, the PSC-T54U is ideal for fast measuring tasks and spot sizes from 5.2 mm.

The standard 0/4 to 20 mA linear output signal allows seamless integration into existing measurement and control systems. The PSC-T54U boasts a galvanically isolated RS-485 interface and therefore is bus-compatible and uses Modbus RTU protocol.

PSC Spot software enables simple parameter adjustment of emissivity, sub temperature ranges, response time, and data storage when connected to a PC through an RS-485 to USB connection.

APPLICATIONS IN THE GLASS INDUSTRY

- Curved panel OLED displays
- Semiconductor glass wafers
- Touch panel displays
- Smart phone screens (including foldable)
- Photovoltaic PV modules
- Consumer electronics
- Light bulbs



*Heavy duty cooling jacket
with integrated air purge for
hot/dusty applications*



PSC-T54U FEATURES

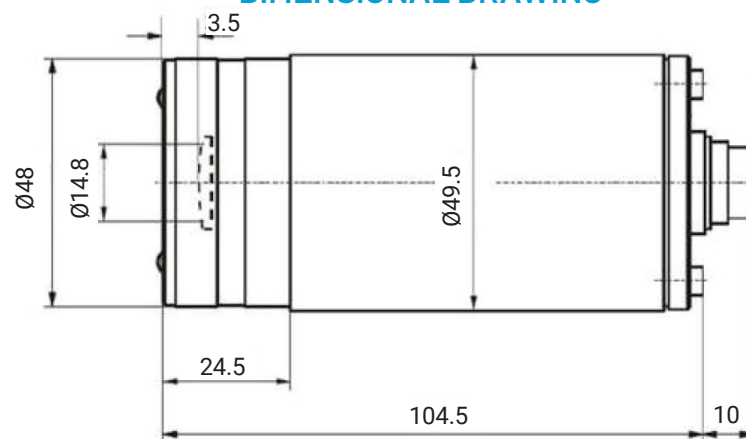
- Available in two temperature ranges: 200 to 800°C (392 to 1472°F) and 350 to 1200°C (662 to 2192°F)
- Designed for non-contact temperature measurement of ultra-thin glass < 1mm thickness
- High resolution optics: Field of View 70:1
- Compact, rugged stainless steel housing with protective hardware for harsh environments
- Digital RS-485 modbus RTU and Analog 4-20 mA interfaces for ease of installation in existing measurement and control systems
- Worldwide application specialist support



TECHNICAL DATA

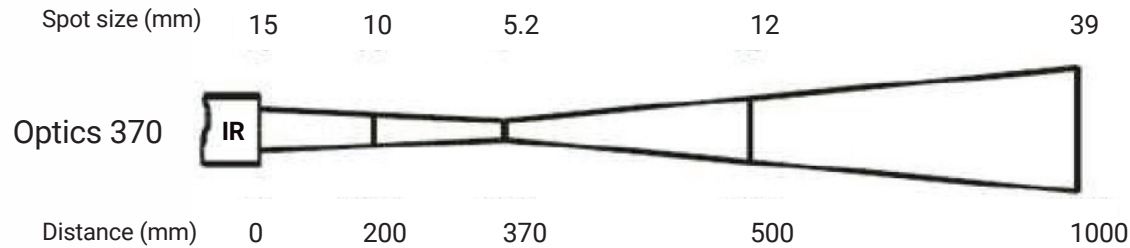
Type	PSC-T54U	PSC-T54U
Temperature Range	350 to 1200°C (662 to 2192°F)	200 to 800°C (392 to 1472°F)
Measurement Distance	340 mm, Spot size (M): 5.2 mm 370 mm, Spot size (M): 5.3 mm	340 mm, Spot size (M): 6.7 mm 370 mm, Spot size (M): 7.25 mm
Sub Temperature Range	Adjustable via RS-485 interface within overall temperature range, minimum span 50 °C	
Spectral Range	~7.7 µm	
Accuracy	1% of meas. value in °C	
Repeatability	0.5% of meas. value in °C	
NETD	0.15	
Response Time (t ₉₀)	60 ms (min.), adjustable via RS-485 with PSC Spot software	
Emissivity	0.200 to 1.000, Adjustable via RS-485	
Peak/Valley Picker	Maximum/minimum data storage, Adjustable via RS-485	
Output	0/4 to 20 mA, Temperature Linear, Max Load 700 Ω	
Interface	RS-485 (galvanically isolated), half duplex, max. baud rate 115 kBd, data protocol Modbus RTU	
Software	PSC Spot for Windows®	
Parameters	Emissivity, Response Time, Data Storage, Sub Temperature Range, Transmissivity, Ambient Radiation, adjustable via RS-485	
Power Supply	24 V DC ±25%, Residual ripple 500 mV	
Power Consumption	Max. 1.5W	
Operating Temperature	0 °C to 70 °C (32 °F to 158 °F)	
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)	
Weight	Approx. 600g (1.32 lb.)	
Dimensions	Length: approx. 105mm Diameter: 50mm	
Housing	Stainless steel round housing with connector	
Safety Class	IP 65 (according to DIN EN 60529 AND DIN 40050)	
CE-Symbol	According to EU regulations (EN 50 011)	
Scope of Delivery	PSC-T54U, operation manual, inspection sheet, PSC Spot for Windows® software (without connection cable – must be ordered separately.)	

DIMENSIONAL DRAWING



Dimensions in mm

PSC-T54U WITH TEMPERATURE RANGE 350 TO 1200°C



ACCESSORIES

Part Number	Description
PSC-3310A21210	Window slide (without window)
PSC-3310A22050	Air purge
950-004	Power supply 24 VDC / 1.5A
TBD	Digital temperature display
PSC-3310A14020	Interface converter RS485 to USB
PSC-3310A21010	Mounting bracket; fixed
PSC-3310A21011	Mounting bracket; adjustable
PSC-3310A23050	Water cooling jacket; stainless steel with integrated air purge
PSC-3310A1112	5 m pyrometer cable with straight connector
PSC-3310A1113	10 m pyrometer cable with straight connector



COOLING JACKET DIMENSIONS (IN MM)

