

PSC-T42G

SELF-CONTAINED, 2-WIRE PYROMETER FOR GLASS APPLICATIONS



OVERVIEW

The PSC-T42G pyrometer is especially designed for applications in the glass industry, suitable for temperatures from 100°C to 2500°C (212°F to 4532°F) of glass surfaces.

The compact stainless-steel housing, with water cooling jacket and integrated air purge allow for usage under rough environmental conditions. With a fast response time from 100 ms (95), emissivity can be adjusted directly at the backside of the device with two fixed-focus optic versions, with spot sizes from 0.22 in. (4.2 mm).

The 2-wire loop powered pyrometer with 4 – 20 mA output, allows for easy installation in existing measuring control systems.

INDUSTRY APPLICATIONS

- Float glass
- Container glass
- Automotive glass
- Annealing ovens
- Ceramics
- Solar cells
- Vacuum reactors
- Semiconductor wafers



Outdoor sealed cooling jacket with integrated air purge.

P/N PSC-3310A23010

With endcap: P/N PSC-3310A23015



*Cooling jacket with air purge
P/N PSC-3310A23010*



PSC-T42G FEATURES

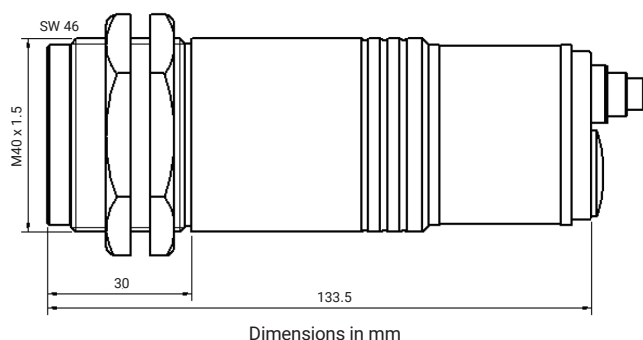
- Ideal for glass surface temperature measurements
- Selection of temperature ranges from 100°C to 2500°C (212°F to 4532°F)
- 2-wire loop powered, self contained Pyrometer
- Built-in peak picker
- Robust stainless steel protective cooling jacket with air purge
- Sensor can view through a sapphire window



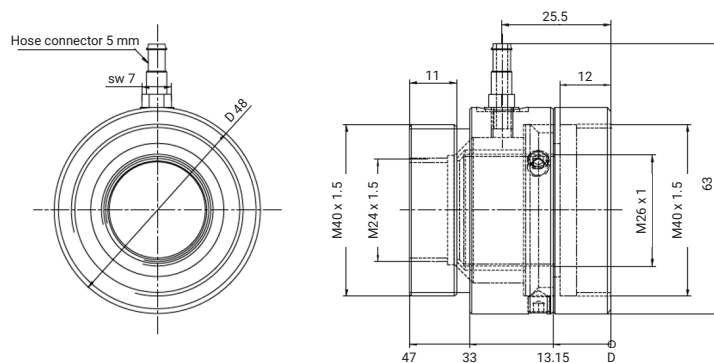
TECHNICAL DATA

Temperature Range	100°C to 1300°C (212°F to 2372°F) or 500°C to 2500°C (932°F to 4532°F)
Accuracy	1% of measured value in °C
Repeatability	0.5% of measured value in °C
Fixed Focus Optics	300, 800
Sub Temperature Range	Factory set only: Customer to advise
FOV	50:1
Response Time (t_{95})	100 ms. - Optional factory set up to 100 s
Emissivity ϵ	0.20 to 1.00. adjustable on the pyrometer
Output	4 to 20 mA temperature linear, max. load 500 Ω at 24 V DC
Aiming	None
Power Supply	24 V DC $\pm$ 25%, residual ripple 500mV
Power Consumption	Max. 0.6 W
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. 450 g (1 lb.)
Housing/Dimensions	Thread M40 x 1.5; length 125 mm
Safety Class	IP 65 according to DIN EN 60529 and DIN 40050
CE-Symbol	According to EU regulations
Scope of Delivery	PSC-T42G manual, inspection sheet, two mounting screw nuts

DIMENSIONAL DRAWING

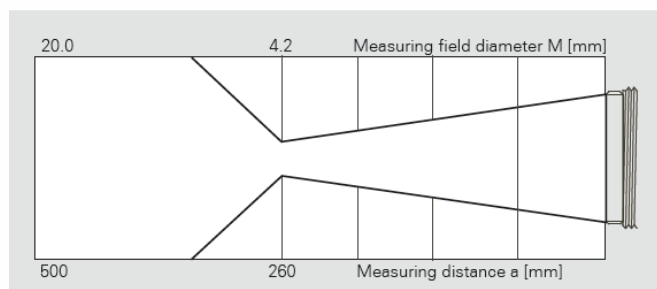


AIR PURGE FOR PSC-T42G P/N PSC-3310A22010



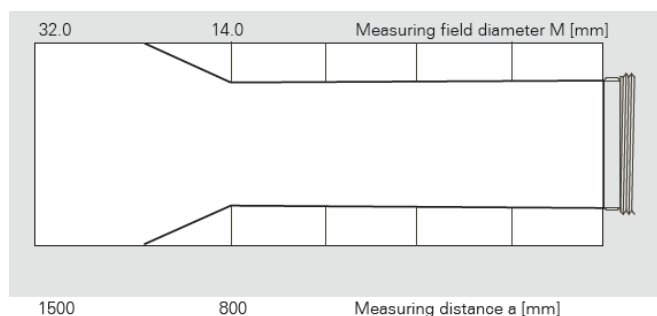
OPTICS 300 (FOCUSED AT A= 295 MM MEASURING DISTANCE, IN BOLD)

Measuring distance in. (mm)	0	3.94 (100)	7.87 (200)	10.24 (260)	11.61 (295)	11.81 (300)	15.75 (400)	19.69 (500)	23.62 (600)	31.50 (800)
Measuring field diameter M in. (mm)										
PSC-T42G (100°C to 2500°C)	0.59 (15)	0.43 (10.8)	0.26 (6.7)	0.17 (4.2)	0.22 (5.5)	0.24 (6.0)	4.53 (115)	0.87 (22)	1.14 (29)	1.73 (44)

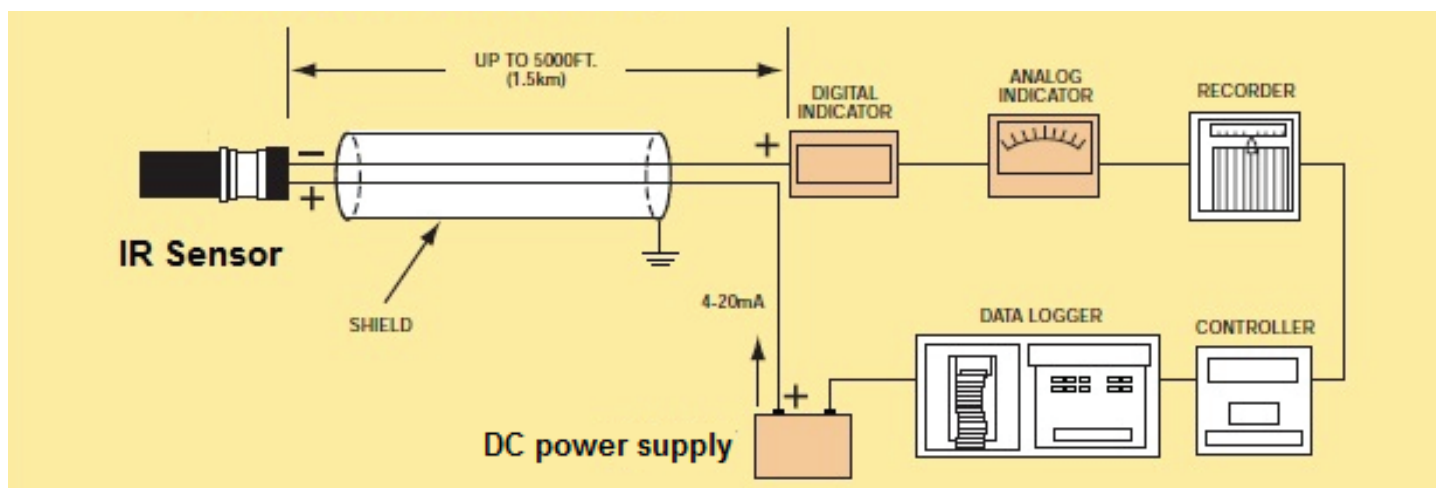


OPTICS 800 (FOCUSED AT A= 800 MM MEASURING DISTANCE, IN BOLD)

Measuring distance in. (mm)	0	11.81 (300)	19.69 (500)	23.62 (600)	30.71 (780)	31.50 (800)	39.37 (1000)	47.24 (1200)	59.06 (1500)	78.74 (2000)
Measuring field diameter M in. (mm)										
PSC-T42G (100°C to 2500°C)	0.59 (15)	0.57 (14.6)	0.57 (14.4)	0.56 (14.3)	0.56 (14.1)	0.55 (14.0)	0.71 (18)	0.94 (24)	1.26 (32)	1.89 (48)



2-WIRE LOOP POWERED CONFIGURATION



ELECTRICAL, MECHANICAL, AND OPTIONAL ACCESSORIES

Part Number	Description
PSC-3310A11511	Pyrometer cable; length 2 m
PSC-3310A11512	Pyrometer cable; length 5 m
PSC-3310A11513	Pyrometer cable; length 10 m
PSC-3310A11514	Pyrometer cable; length 15 m
PSC-3310A11517	Pyrometer cable; length 30 m
PSC-3310A18515	Connection cable high temp. 5 m, 5-pin
PSC-3310A18513	Connection cable high temp. 10 m, 5-pin

ACCESSORIES

Part Number	Description
PSC-3310A21210	Window slide (without window)
PSC-3310A22010	Air purge
950-004	Power supply 24 VDC / 1.5A
TBD	Digital temperature display
PSC-3310A21010	Mounting bracket; fixed
PSC-3310A21011	Mounting bracket; adjustable
PSC-3310A23010	Cooling jacket, stainless steel with integrated air purge
PSC-3310A23015	End cap for cooling jacket, stainless steel with integrated air purge
PSC-3310A24010	Vacuum flange; KF 16



*Adjustable mounting bracket
P/N PSC-3310A21011*



*Air purge unit
P/N PSC-3310A22010*



*Cooling jacket with air purge
P/N PSC-3310A23010*



*Outdoor sealed cooling jacket with
integrated air purge.
P/N PSC-3310A23010
With endcap: P/N PSC-3310A23015*



*Power supply VDC (din rail)
P/N 950-004*



Digital Temperature Display

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