

PSC-S40NVF / PSC-G40NVF Pyrometer Series

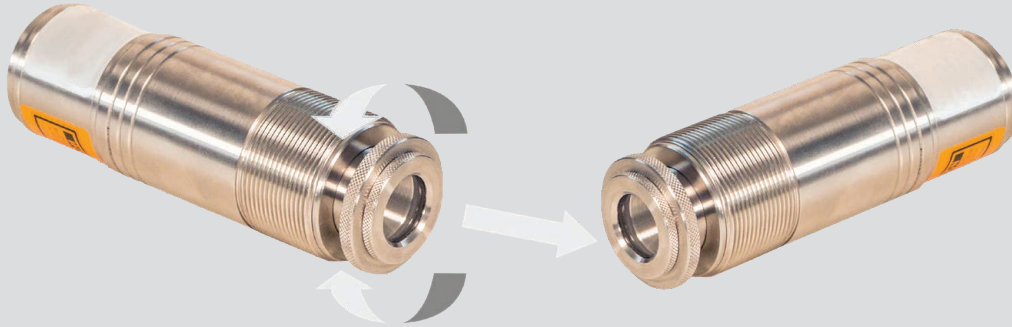
Pyrometer with Variable Focus Optics



a KPM ANALYTICS brand

Overview

Self-contained, digital 2-wire loop-powered pyrometers with integrated USB interface



Features

- Temperature ranges from 250°C to 2500°C
- Variable focus optics - 300 to 800mm
- 4 to 20mA temperature linear output
- Laser aiming (4-wire connection)
- Stainless steel housing
- Integrated USB interface

Description and applications

The innovative digital Process Sensors Models PSC-S40NVF and PSC-G40NVF with adjustable focus optics are compact, rugged and designed for simplicity of installation.

Used in a 2-wire loop powered configuration, the IR sensor's 4-20 mA linear output signal can be easily integrated into existing instrumentation for recording and process control.

In a 4-wire configuration, integrated LASER facilitates accurate target alignment.

The rugged stainless steel housing with protective window and cooling jacket with air purge, ensures reliable operation in harsh and hot environments.

Models PSC-S40NVF and PSC-G40NVF are suitable for mid to high temperature measurements from 250°C, with fast response time of 10 milliseconds.

The 40 Series sensors are ideal instruments for system integrators, machine builders (OEMs), and engineering construction companies.

Equipped with USB interface, adjustment of all sensor parameters can be accessed via a PC, such as emissivity, response time, temperature sub range, peak picker, etc. Software is provided for IR sensor adjustments temperature measuring and data acquisition evaluation.

Typical application areas:

- Metal Heat treating
- Induction heating
- Rotary Kilns
- Semiconductor
- Furnace
- Steel Industry
- Ceramics
- Welding
- Solar
- Sintering



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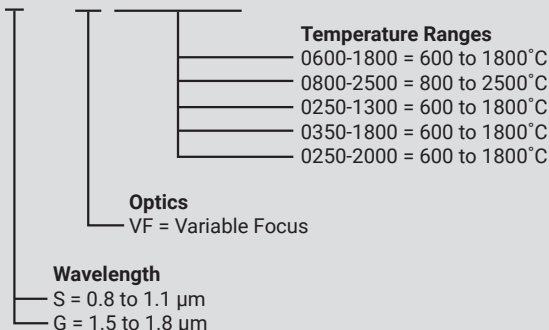


Technical Data					
Type	PSC-S40NVF		PSC-G40NVF		
Temperature range	600 °C to 1800 °C	800 °C to 2500 °C	250 °C to 1300 °C	350 °C to 1800 °C	250 °C to 2000 °C
Sub temperature range of analog output	adjustable within temperature range via USB interface, minimum span 50 °C				
Spectral range	0.8 to 1.1 µm		1.5 µm to 1.8 µm		
Optics	Variable focus optics with quartz glass protection window				
Distance ratio	approx. 100 : 1	approx. 200 : 1	approx. 100 : 1	approx. 200 : 1	approx. 100 : 1
Measurement uncertainty ¹	0.5 % of measured value in °C + 1 K				
Repeatability ¹	0.1 % of measured value in °C + 0.5 K				
NETD ^{1,2}	0.1 K				
Response time (t ₉₅)	10 ms, adjustable up to 100 s via USB interface				
Emissivity	0.05 to 1.00, adjustable via USB interface				
Data storage	maximum and minimum value storage, adjustable via USB interface				
Output	4 to 20 mA, temperature linear, max. burden: 600 Ω at 24 V				
Interface	galvanically isolated USB interface				
Aiming	Laser aiming				
Software	PSCSpot for Windows®, optional: PSCSpot Pro				
Parameters	emissivity, response time, data storage, sub range, adjustable via USB interface and software				
Power Supply	24 V DC ± 25 %, residual ripple 500 mV, LED or laser aiming light: 7 V to 30 V DC, < 200 mW				
Power Consumption	max. 0.6 W (without aiming light)				
Operating Temperature	0 to 70 °C // 32 to 158°F				
Storage temperature	-20 to 70 °C // -4 to 158°F				
Weight	appr. 450 g // 1 lb				
Dimensions	thread M40 × 1.5, length 125 mm				
Housing	stainless steel with plug connector and protection window				
Safety Class	IP 65 (according to DIN EN 60526 and DIN 40050)				
CE Symbol	according to EU regulations				
Scope of Delivery	PSC-S40NVF or PSC-G40NVF, manual, mounting screw nuts, inspection sheet, PSCSpot for Windows® (without connecting cable, please order separately)				

¹ For black body radiators, T_u = 23 °C, t₉₅ = 1 s. ² Noise equivalent temperature difference.

Model Selection Series

PSC-x40NVF-xxxx-xxxx



PSC-S40NVF / PSC-G40NVF Pyrometer Series

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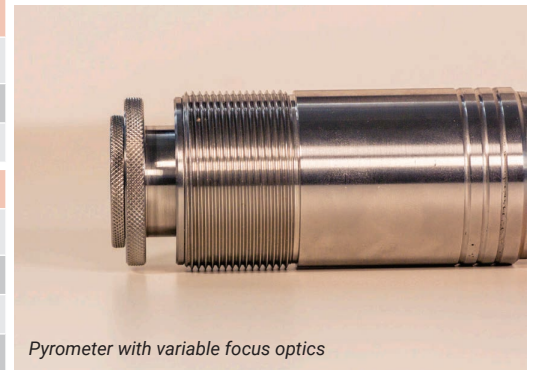
Variable Focus Optics

PSC-S40NVF

Temperature range	Measuring distance a	Target size M	Aperture \varnothing D
600 °C to 1800 °C	300 mm to 800 mm	3.0 mm to 8.6 mm	10 mm
800 °C to 2500 °C	300 mm to 800 mm	1.5 mm to 5.5 mm	10 mm

PSC-G40NVF

Temperature range	Measuring distance a	Target size M	Aperture \varnothing D
250 °C to 1300 °C	300 mm to 800 mm	3.0 mm to 8.6 mm	10 mm
250 °C to 2000 °C	300 mm to 800 mm	3.0 mm to 8.6 mm	10 mm
350 °C to 1800 °C	300 mm to 800 mm	1.5 mm to 5.5 mm	10 mm



Pyrometer with variable focus optics

Electrical, mechanical, and optical accessories¹

Order number

Pyrometer connecting cable	length 2 m	PSC-3310A11511
	length 5 m	PSC-3310A11512
	length 10 m	PSC-3310A11513
	length 15 m	PSC-3310A11514
	length 20 m	PSC-3310A11515
	length 25 m	PSC-3310A11516
	length 30 m	PSC-3310A11517
USB connecting cable	length 1.8 m, screened	PSC-3310A14010
Power supply	24 V DC // 1.5 amps	PSC-950-004
Mounting bracket	adjustable	PSC-3310A21011
Air purge	stainless steel, air flow 0.1 to 0.5 bar, oil free	PSC-3310A22010
Water cooling jacket	stainless steel with integrated air purge unit	PSC-3310A23010
Vacuum flange KF16	with quartz window or	PSC-3310A24010
	with sapphire window	PSC-3310A24010
Mirror	90° with integrated air purge unit	PSC-3310A24110
Digital Display with laser switch	24 VDC // 1.5 amps	950-265A

¹ More accessories available.

Selected accessories – pictures

Mounting bracket, adjustable

Order number: PSC-3310A21011



Window slide

Order number:
PSC-3310A21210



Air purge unit

Order number: PSC-3310A22010



Water cooling jacket with end cap

Order number: PSC-3310A23010 /
PSC-3310A2315



Power Supply 24 VDC // 1.5 amp

Order number: 950-004



Digital display in Enclosure with laser switch

Order number: 950-265a



Sales

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