

# Accurate Sensors Technologies

## Highly Accurate On-line Two Color Infrared Focusable Non-contact Pyrometers

C € 400°C to 2000°C

SWIFT 250C+

SWIFT 250C+ is a highly accurate and very fast digital two color IR Focusable pyrometer to provide high performance and low maintenance of non contact temperature measurement in demanding industrial and R&D environments.

The IR pyrometer has very fast response time, 100 µsec. The parameters can be selected via the key pads on the back panel. The settings are displayed on the OLED Display. In the measuring mode real time temperature is displayed. SWIFT A250C+ has focusable optics for optimal match of the instrument for various applications. It is equipped with RS-485 and analog outputs 0/4-20 mA.



#### Software "Infrasoft"

AST "Infrasoft" software is under standard scope of supply.It offers parameter setting, view real time graph, offline graph and to evaluate measuring data. Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC serial. It comes with record feature, spot size calculator and parameter settings features.

Some of the parameters adjustable via software are

- · Emissivity, Response Time
- Peak Pickers
- · Analog Output
- Sub Range
- Unit of Temperature(°C/°F)

# 976°C

#### **Features**

- Wide temperature ranges from 400°C to 2000°C
- · Focusable Optics
- Very Fast Response Time 100 µsec
- Spectral range 1.5/1.6µm
- Integrated OLED Display & Parameterizing Keys
- Laser targeting/Through The lens view finder sighting options are available
- Analog output options 0...20mA, 4...20mA
- RS-485 Interface
- User friendly PC software for communication
- Green LED for pyrometer status indication
- Red LED for Laser ON/OFF indication (PL)

#### Standard Scope of Supply

- Pyrometer with Focusable optics, OLED Display & Parameterizing Keys
- Laser pilot light(PL)/Through the lens(TL) sighting (user can select while ordering)
- Analog output 4....20mA, 0..20mA
- Digital Interface RS-485
- 5 mtr long connection cable with connector
- 1.5 mtr. Communication Cable
- Calibration certificate, Software & Operation manual

#### Optional

- · Mechanical & Electrical Accessories
- · Extra Cable Lengths

#### Applications

- Preheating
- Annealing
- **Tempering**
- Welding
- Forging
- Hardening

- Melting
- Sintering
- Soldering
- Rolling
- Brazing
- Normalizing

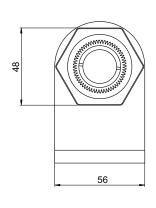
# **Technical Specifications**

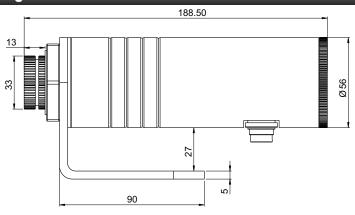
Model	SWIFT 250C+	
Temperature Range (Analog sub-range adjustable)	400°C - 2000°C	
Spectral Range	1.5/1.6µm	
Distance to Spot Size Ratio	150:1	
Emissivity ( $\epsilon$ )(For single color)	0.11.0	
Emissivity Slope(ε1/ε2)(For two color)	0.751.25	
Response Time (analog $t_{90}$ )	100 µsec adjustable upto 10 sec	
Sampling Rate	10kHz or more	
Accuracy	± 0.5% of the measured value + 1°C	
Uncertainty	<0.75% of the measure value	
Repeatability	0.2% of reading in °C + 1°C	
Resolution	0.1°C (upto 999.9°C), 1.0°C (above 999.9°C)	
Sighting Options	Laser Pilot Light(PL)/Through The Lens (TL)	
Analog Output	0-20mA, 4-20mA (User selectable)	
Digital Output	RS-485	
Operating Temp. Range	0°C70°C	
Storage Temp. Range	-20°C70°C	
Adjustable Parameters and Features via Software	Emissivity, Emissivity Slope, Response Time, Peak Picker, Analog Output, Analog Scale (Subrange), Unit Of Temperature(°C/°F), Record feature etc.	
Adjustable Parameters and Features via Keypad	Emissivity, Emissivity Slope, Response Time, Peak Picker, Analog Output, Analog Scale (Subrange), Unit Of Temperature(°C/°F) etc.	
Power Supply	12V to 28V DC with reverse voltage protection	
Power Consumption	Max 5.0 watt	
Laser Power	<1 m watt (only PL model)	
Protection Class	IP65	
Housing	Stainless Steel	
Isolation	Power supply, Digital output and Analog output are galvanically islolated against each other	
Operating Humidity	10-95%, Non-Condensing Conditions	
Weight & Dimensions	1200g Dia= Ø 56mm; Length=188.5mm	

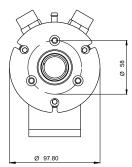
# Spot Sizes

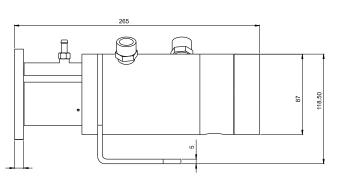
Spot Sizes(mm)			
Focused working distances WD (mm)	Length L	AST SWIFT 250C+ PL 400°C - 2000°C (150:1)	
500	12.70	3.40	
700	8.50	4.70	
1000	5.50	6.70	
2000	2.30	13.40	
5000	0.50	33.40	
9000	0	60.00	

### **Pyrometer & Cooling Jacket Drawing**



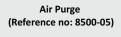






#### Accessories

Mounting Clamp (Pyrometer) (Reference no: 8500-04)



Mounting Clamp (Water Cooling Jacket) (Reference no: 8500-06)







Mounting Flange (Reference no: 8500-07)

Mounting Plate (Reference no: 8500-08)

Water Cooling Jacket (Reference no: 8500-09)







Temperature Indicator (Reference no: 9000-01)

Adjustable Mounting Stand (Reference no: 8000-07)

Power supplyInput 110/230V AC Reference No. 9000 - 02 Output 24 V DC, 0.7Amp.







Pyrometer with Mounting Clamp (8500-04)

Pyrometer with Mounting Flange (8500-07) + Air Purge (8500-05) + Water Cooling Jacket (8500-09)





Pyrometer with Air Purge (8500-05) + Mounting Clamp (8500-06)

Pyrometer with Water Cooling Jacket (8500-09) + Mounting Clamp (8500-06)

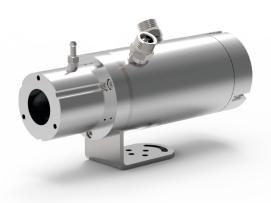




Pyrometer with Mounting Flange (8500-07) + Air Purge (8500-05)

Pyrometer with Mounting Flange (8500-07) + Air Purge (8500-05) + Water Cooling Jacket (8500-09)





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