



Highly Accurate On-line Single Color Infrared Focusable Non-contact Pyrometers

CE 250°C to 3500°C

• **SWIFT Series**

SWIFT Series is a highly accurate and very fast digital single 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, 10 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 series has focusable optics for optimal match of the instrument for various applications. It is equipped with digital output : ethernet and analog outputs 0/4 - 20 mA. Switching laser ON/OFF does not effect the measurement.



Swift Models

SWIFT 250 : 250°C - 3000°C, 1.6 µm

SWIFT 350 : 350°C - 3500°C, 2.0 to 2.6 µm

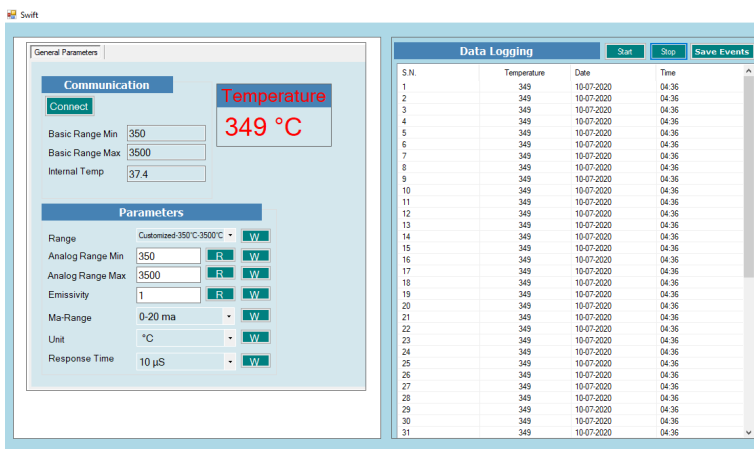
SWIFT 450 : 600°C - 2500°C, 1.0µm

Software “Swift 1.0.0”

AST “Swift” software is under standard scope of supply. It offers parameter setting, data logging and saving the data in .txt notepad format. Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC RJ 45 port.

Some of the parameters adjustable via software are

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



Features

- Wide temperature ranges from 250°C to 3500°C
- Focusable Optics
- Very Fast Response Time - 10 µsec
- Integrated OLED Display & Parameterizing Keys
- Laser targeting
- Analog output options 0...20mA, 4...20mA
- Spectral range 1.6 µm, 2.0 to 2.6 µm, 1.0µm
- Ethernet Communication
- 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)
- Analog output 4...20mA, 0..20mA
- Digital Interface Ethernet
- 5 mtr long connection cable with connector
- 1.5 mtr. Communication Cable
- Calibration certificate, Software & Operation manual
- FOPL as per customer requirement

Optional

- Mechanical & Electrical Accessories
- Extra Cable Lengths

Applications

- Preheating
- Annealing
- Tempering
- Welding
- Forging
- Hardening
- Melting
- Sintering
- Soldering
- Rolling
- Brazing
- Normalizing

Technical Specifications

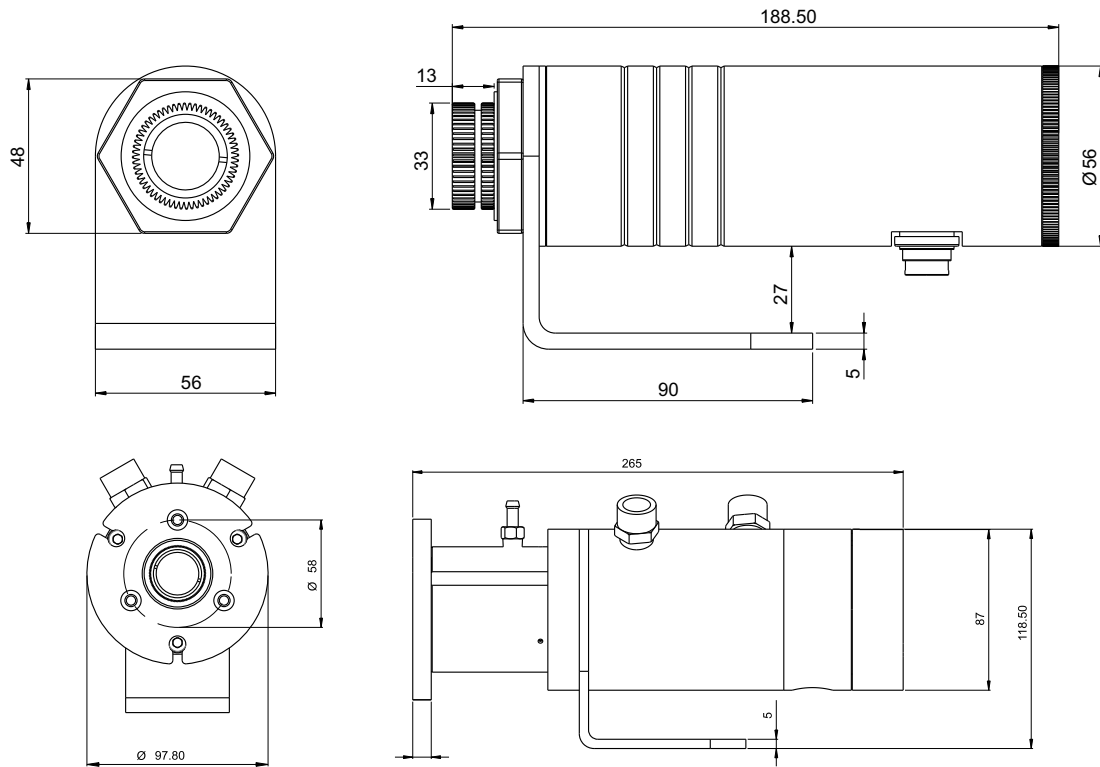
Model	SWIFT 250	SWIFT 350	SWIFT 450
Temperature Range (Analog sub-range adjustable)	250°C - 1800°C 300°C - 2500°C 350°C - 3000°C	350°C - 3500°C	600°C - 2500°C
Spectral Range	1.6 µm	2.0 to 2.6 µm	1.0µm
Distance to Spot Size Ratio	150:1(250°C - 1800°C) 300:1(300°C - 2500°C) 300:1(350°C - 3000°C)	300:1(350°C - 3500°C)	300:1(600°C - 2500°C)
Photo Detector Type	InGaAs	Extended InGaAs	Si
Emissivity (ε)	0.1....1.0 adjustable (Single color mode)		
Response Time	10 µsec adjustable upto 10 sec		
Accuracy	± 0.5% of the measured value + 1°C		
Repeatability	0.2% of reading in °C + 1°C		
Sighting Options	Laser Pilot Light(PL)		
Analog Output	0-20mA, 4-20mA (User selectable)		
Digital Output	Ethernet		
Operating Temp. Range	0°C.....70°C		
Storage Temp. Range	-20°C...70°C		
Adjustable Parameters and Features via Software	Emissivity, Response Time, Analog Output, Analog Scale (Sub range), Unit Of Temperature(°C/°F)		
Adjustable Parameters and Features via Keypad	Emissivity, Response Time, Range Type, Analog Output, Analog Scale (Sub range), Unit Of Temperature(°C/°F), OLED Auto OFF time		
Power Consumption	Max 3.0 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 isolated against each other		
Operating Humidity	10-95%, Non-Condensing Conditions		
Weight & Dimensions	1200g Dia= Ø 56mm; Length=199.5mm		

Spot Sizes

Focused working distances WD (mm)	Spot Sizes(mm)				
	SWIFT 250			SWIFT 350	SWIFT 450
	250 - 1800°C (150:1)	300 - 2500°C (300:1)	350 - 3000°C (300:1)	350-3500°C (300:1)	600-2500°C (300:1)
500	3.30	1.65	1.65	1.65	1.65
750	5.0	2.5	2.5	2.5	2.5
1000	6.65	3.35	3.35	3.35	3.35
2000	13.40	6.70	6.70	6.70	6.70
4000	26.70	13.40	13.40	13.40	13.40
9000	60.0	30.0	30.0	30.0	30.0

We measure accurate temperature in extreme conditions

Pyrometer & Cooling Jacket Drawing

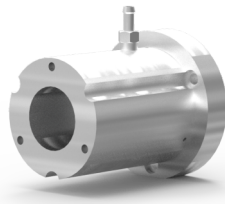


Accessories

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



Air Purge
(Reference no: 8500-05)



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



Mounting Flange
(Reference no: 8500-07)



Mounting Plate
(Reference no: 8500-08)



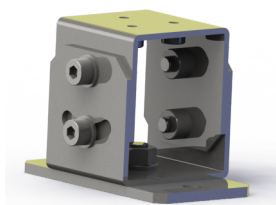
Water Cooling Jacket
(Reference no: 8500-09)



Temperature Indicator
(Reference no: 9000-01)



Adjustable Mounting Stand
(Reference no: 8000-07)



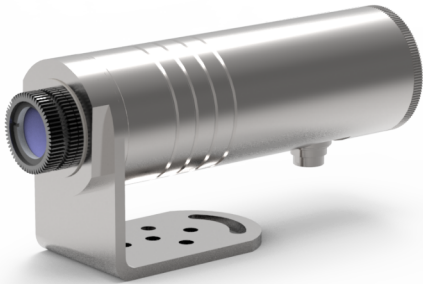
Power supply Input 110/230V AC
Reference No. 9000 - 02
Output 24 V DC, 0.7Amp.



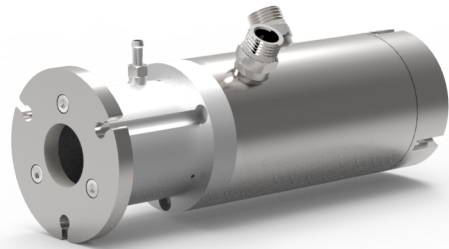
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Assembly Options

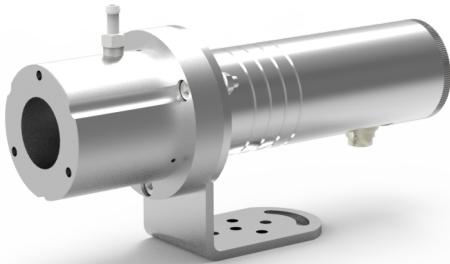
Pyrometer with Mounting Clamp (8500-04)



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



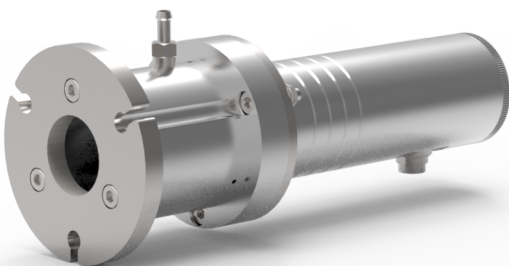
Pyrometer with Air Purge (8500-05) + Mounting Clamp (8500-06)



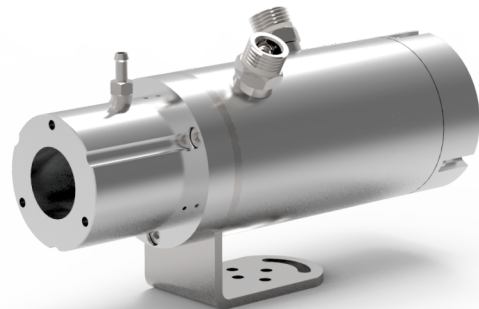
Pyrometer with Water Cooling Jacket (8500-09) + Mounting Clamp (8500-06)



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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