

**Adjustable Output, Ultra Fast Response, Fixed IR Sensors with built-in display**

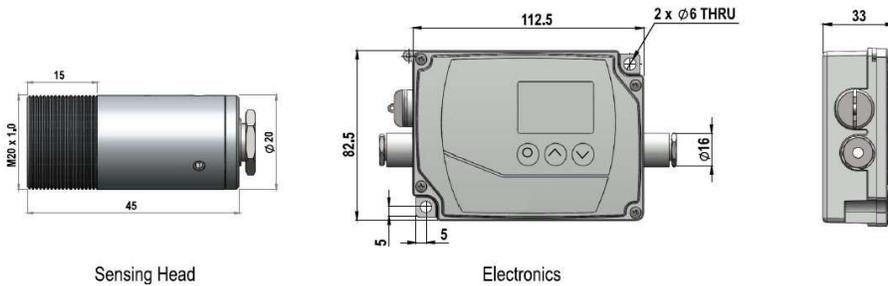
**Features**

- OSAO-Series offer high measurement temperatures up to 1800 °C
- OSAO-Series has many field of view options, 2:1, 15:1, 20:1, 40:1 and 80:1
- Features a built-in LCD display with keypad for hassle-free adjustments
- User selectable options for analog outputs and USB 2.0 digital output included
- AO50H Models offer higher ambient temperature ratings for the sensing head up to 180 °C
- Includes laser targeting sight for easier installations (AO250 Models)
- Check out the included software to maximize the capabilities of the OSAO-Series
- Standard cable length is 3 meters, consult sales for non-standard lengths up to 20 meters
- Optional water-cooling jacket, air purge sensor head, adjustable mount, and more!



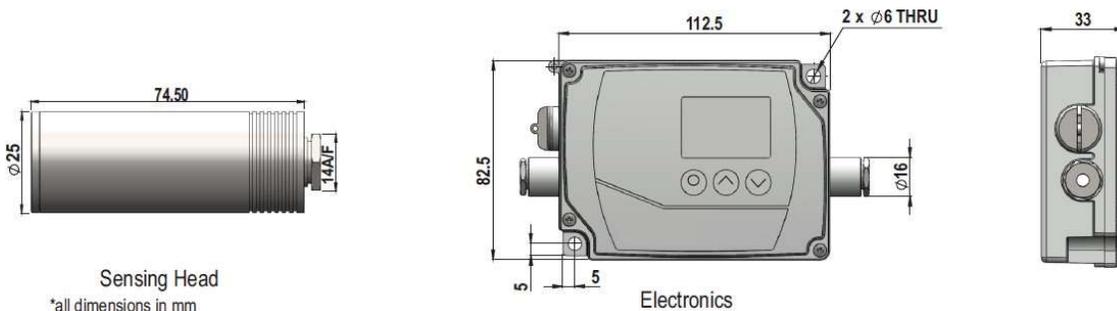
**Scope of Delivery**

- OSAO-Series Sensor with LCD Display
- Extended Sensor head with 3 meter cable
- Laser Targeting Light (AO250 Model)
- Calibration certificate & Software



\* All Dimensions are in "mm"

**AO50/50H Models**



**AO250 Model**

## Technical Specifications

Model	OS-AO50-*	OS-AO50H-*	OS-AO250-*
Temperature Range	0°C....800°C	0°C....800°C	250°C....1000°C 300°C....1300°C 350°C....1800°C (dependent of FOV)
Spectral Response	8...14 μm	8...14 μm	1.6 μm
Photodetector Type	Thermopile	Thermopile	InGaAs
Field of View (FOV)	2:1 or 15:1	2:1 or 15:1	20 : 1, 40 : 1, or 80 : 1
Emissivity (ε)	0.1....1.2 adjustable	0.1....1.2 adjustable	0.1....1.0 adjustable
Response Time	20 msec adjustable up to 10 sec	60 msec adjustable up to 10 sec	2 msec adjustable up to 10 sec
Accuracy	± 1% of the measured value or 3°C whichever value is greater (The sensor head must be at constant ambient temperature for a minimum of 15 minutes)	±1.5% of the measured value or 2°C whichever is greater (The sensor head must be at constant ambient temperature for a minimum of 15 minutes)	<b>Below 1500°C:</b> ±0.3% of rdg +1°C <b>Above 1500°C:</b> ±0.4% of rdg +1°C
Repeatability	0.3% of reading + 1°C	0.3% of reading + 1°C	0.1% of reading +1°C
Temperature Coefficient <sup>2</sup>	± 0.06 °C/°C (0.06 °F/°F) or ± 0.06% (whichever is greater)	± 0.06 °C/°C (0.06 °F/°F) or ± 0.06 % (whichever is greater)	± 0.055°C/°C (0.055°F/°F) or ± 0.055 % (whichever is greater)
Sighting Option	None	None	Laser Pilot Light (PL)
Analog Output	0-20mA, 4-20mA, 0-10V, Thermocouple Type “K” or “J” (User selectable)	0-20mA, 4-20mA, 0-10V, Thermocouple Type “K” or “J” (User selectable)	0-20mA, 4-20mA, 0-10V (User Selectable)
Digital Output	USB 2.0 RS-232/RS-485 interface card (Optional) *At a time only one digital output possible	USB 2.0 RS-232/RS-485 interface card (Optional) *At a time only one digital output possible	USB 2.0 output RS - 232 / RS - 485 interface card (Optional) *at a time only one digital output possible
Operating Temp. Range	Electronic Box up to 70°C Sensor head up to 120°C	Electronic Box up to 70°C Sensor head up to 180°C	Electronic Box and Sensor Head up to 70°C
Storage Temp. Range	-20°C...70°C	-20°C...70°C	-20°C....70°C
Relay Output	Relay Output with hysteresis 60V DC/42V AC	Relay Output with hysteresis 60V DC/42V AC	Relay output with hysteresis 60V DC / 42V AC RMS, 0.4A
Adjustable Parameters and Features via Software	Emissivity, Response Time, Clear Time (Peak Picker), Analog Output, Sub Range, Unit of Temperature (°C/°F), Communication mode (Comm.mode), Record Feature etc.	Emissivity, Response Time, Clear Time (Peak Picker), Analog Output, Sub Range, Unit of Temperature (°C/°F), Communication mode (Comm.mode), Record Feature etc.	Emissivity, Response Time, Clear Time(Peak Picker), Analog Output, Analog Scale (sub range), Unit of Temperature(°C/°F), Communication mode (Comm.mode), Record Feature ect.

<b>Adjustable Parameters and Features via Keypad</b>	Emissivity, Setpoint, Hysteresis (Hyst), Analog Sub Range, Analog Output, Unit of temperature, Sensor address, Response Time, Clear Time (Peak Picker) etc.	Emissivity, Setpoint, Hysteresis (Hyst), Analog Sub Range, Analog Output, Unit of temperature, Sensor address, Response Time, Clear Time (Peak Picker) etc.	Emissivity, Set Point, Hysteresis (Hyst), Analog Sub Range, Analog Output, Unit of temperature, Sensor address, Response Time, Clear Time (Peak Picker) etc.
<b>Power Supply</b>	12V to 28V DC with reverse polarity protection	12V to 28V DC with reverse polarity protection	24V DC
<b>Power Consumption</b>	Max 2.5 watt	Max 2.5 watt	Max 2.5 watt
<b>Laser Power</b>	Not applicable	Not applicable	<1 m watt
<b>Protection Class</b>	IP65	IP65	IP65
<b>Housing</b>	Sensor head-Stainless Steel; Electronic Enclosure: Zinc	Sensor head-Stainless Steel; Electronic Enclosure: Zinc	Sensor head: Stainless Steel
<b>Isolation</b>	Power supply, *Digital output and Analog output are galvanically isolated  * Not applicable for USB 2.0 digital output	Power supply, *Digital output and Analog output are galvanically isolated  * Not applicable for USB 2.0 digital output	Power supply, * Digital output and Analog output are galvanically isolated *Not applicable for USB 2.0 digital output
<b>Operating Humidity</b>	10-95%, Non-Condensing	10-95%, Non-Condensing	10-95%, Non-Condensing
<b>Weight &amp; Dimensions</b>	600g 112.5mm x 82.5mm x 33mm (L x W x H)	600g 112.5mm x 82.5mm x 33mm (L x W x H)	600g 112.5mm x 82.5mm x 33mm (L x W x H)

1: At ambient temperature  $23 \pm 5^{\circ}\text{C}$ , =1 and response time = 600msec.

2: For ambient temperature (sensor head)  $<18^{\circ}\text{C}$  and  $>28^{\circ}\text{C}$

### Optical Specifications:

- Please refer to operation manual

### Accessories

<b>OS-AO250-WCJ-AP</b> Water Cooling Jacket w/ Air Purge for AO250 Models 	<b>OS-AO250-AP</b> Air Purge Unit for AO250 Models 	<b>OS-AO50-MT</b> Adjustable Mount for AO50/50H Models 	<b>OSAO-Conv</b> Converter RS-232/RS-485 for OSAO-Series 
<b>OSAO-PS</b> Power Supply for OSAO-Series IR Sensors 	<b>OS-AO250-MT</b> Adjustable Mount for AO250 Models 	<b>OS-AO50-AP</b> Air Purge Unit for AO50/50H Models 	<b>OSAO-PCB</b> Communication PCB for RS-232/RS-485 