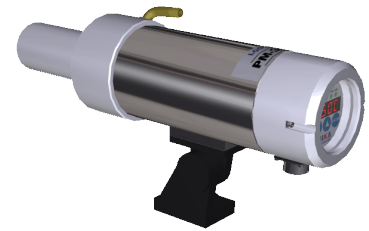# Single Color Pyrometer

Single (One) color infrared pyrometer is primarily used in the metallurgical industry to measure temperature of steel, Billet, Slab, hot rolled steel, refractories, etc. The pyrometer can "look" into a process and measure the target temperature from a distance, providing an accurate reading while eliminating problems associated with contact measuring devices. Single color infrared pyrometer is used to the measure relatively flat area with installation between 45° and 90°. Complete spot should be filled by hot metal to measure the right temperature, precaution should be taken to avoid dust, water and water vapor at the point of measurement.

PM –	XXXXX –	XXX –	XXX
Base Model	Temperature range 25S11=250° to 1100°C 30S14=300° to 1400°C 60S16=600° to 1600°C	Fiber optic option FOC=Fiber Optic Blank=Standard	Power Input 024 = 24 VDC 110 = 110 VAC 220 = 220 VAC

Operating Temp	-20˚C to +55˚C (-4˚F to +130˚F). With cooling water: +120˚C (250˚F)
Accuracy	0.5%
Repeatability	0.1% (±2°C, ±3.6°F)
Response Time	Adjustable – the fastest response time is 20 ms
Display Mode	4 digit LEDs. Display peak, valley, average or real time options
Analog Output	Linear 4-20 mA (or 0-20 mA) proportional to temperature Linear 0-10 VDC proportional to temperature
Alarm Output	High or low process temperature alarm, rated 0.2 A at 220 VAC, 0.5 A at 30 VDC, MOS relay output. Ambient temperature high or low alarm
Housing	Sealed stainless steel enclosure rated IP66, includes purge air and cooling water connections. Optional fiber optic lens assembly includes air purge fitting
Size	Enclosure: 370 mm L x 100 mm W x 190 mm H (14.5" L x 4" W x 7.5" H), 4 kg (8.8 lbs)
Laser Aiming	Visible aiming laser, wavelength 630 nm ±10%, Power≤3 mW. Class 2 laser
Self-testing	Self-test activates when test pin connected to 0 VDC OR test button is press at the back

Features

- Designed for harsh environment with IP66 enclosure
- Integrated air purging and cooling water connection
- Back panel adjustment
- Laser pointer for alignment
- Easy to install
- Fast response time
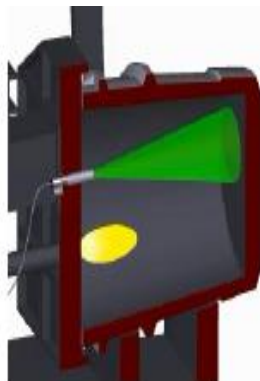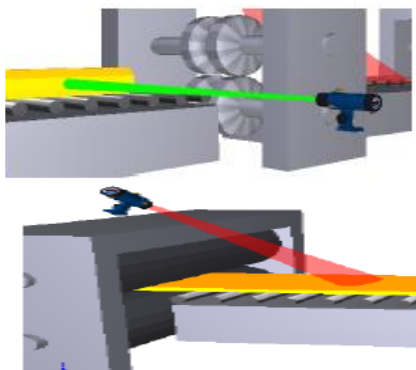
Applications

- Measurement of product temperature inside Reheating Furnace
- Billet / Slab / Sections / TMT Bar
- Measure temperature of slabs, billets, blooms, bars, liquid steel

Additional Options

- Junction Box – Includes AC/DC converter and terminal connections
- Shroud - Sheet metal protective cover
- Support Stand - Steel Construction - adjustable for mounting sensors.
- Remote Temperature Display Unit (UTD-1)

Cable Terminal Wiring Description.

Cable No.	Color	Function	Junction Box Number	Junction Box Name
1	Brown	+24VDC	1	+24V
2	Red	0V	2	0V
3	Orange	Analog 0-10V Output	3	0-10V
4	Yellow	Analog 4-20mA Output	4	mA
5	Green	Analog Output Ground	5	AGND
6	Blue	PNP output (Upper limit alarm)	6	PNP
7	Purple	Upper limit alarm closed=Alarm	7	UPPER1
8	Grey	Upper limit alarm Common	8	UPPER2
9	White	Lower limit alarm closed=Alarm	9	LOWER1
10	Black	Lower limit alarm Common	10	LOWER2
11	Sky blue	RS485 A	11	RS485 A
12	Pink	RS485 B	12	RS485 B
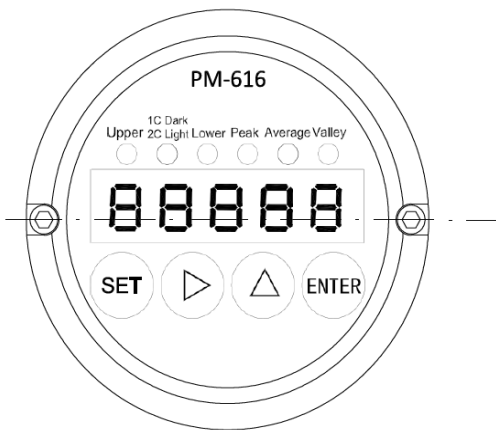
Single color pyrometer Model

Model No	Measuring Range	FO	Wave Length
PM25S11	250 to 1100	YES	1.6 µm
PM30S14	300 to 1400	YES	1.6 µm
PM60S16	600 to 1600	YES	1.0 µm

Figure7.6 Pyrometer control panel layout

Unit: mm