



- Visible Retro-Reflective Laser Thru-Beam Barrier
- >20 Meter Range
- Detects Hot or Cold Metal Product in Production Lines
- Edge Resolution of 3 mm per Meter
- IR Filtering enables use in Steel Slabs furnace entry door
- Class II Laser Visible Laser Light
- Continuous Self-Check with LED Indication
- Robust cast aluminum housing rated IP66 with unique combined air purge & cooling

General Description

The MSE-RT20 Retro-Reflect Laser Barrier operates over a range of greater than 20 meters enabling precise detection of hot or cold product in difficult areas of metal industry.

The MSE-RT20 Retro-Reflect Laser Barrier is a robust sensor especially suited for precise detection and measurement of narrow profile product. Utilizing modulated optical beam with IR filtering enables precise detection of both cold and hot metal product.

Straightforward alignment is easily accomplished via the visible red Class II laser beam. Continuous self-check facility with LED indication of reflector contamination or poor signal return.

The MSE-RT20 is supplied with an 8A/250VAC SPNO/SPNC Form C output relay, and NPN & PNP 500mA transistor outputs.

The MSE-RT20 aluminum housing is supplied with built-in air coolant chamber venting as air purge. Standard operating temperature without air cooling is 40°C and with air cooling is 60°C. Optional water cooling is available for an operating temperature up to 70°C or 80°C.

Several reflectors designs are available with temperature ratings from 90°C up to 500°C. Optional air purged and air cooled reflectors are also available.

The MSE-RT20 provides highly accurate detection over the whole range as a result of a linear laser beam.

Typical Applications

**Furnace Door Monitoring
 Metals Industry**

For prevention of product collision with furnace door.
 Detection of Hot and Cold Product in different Production Lines in the Metal Industry.



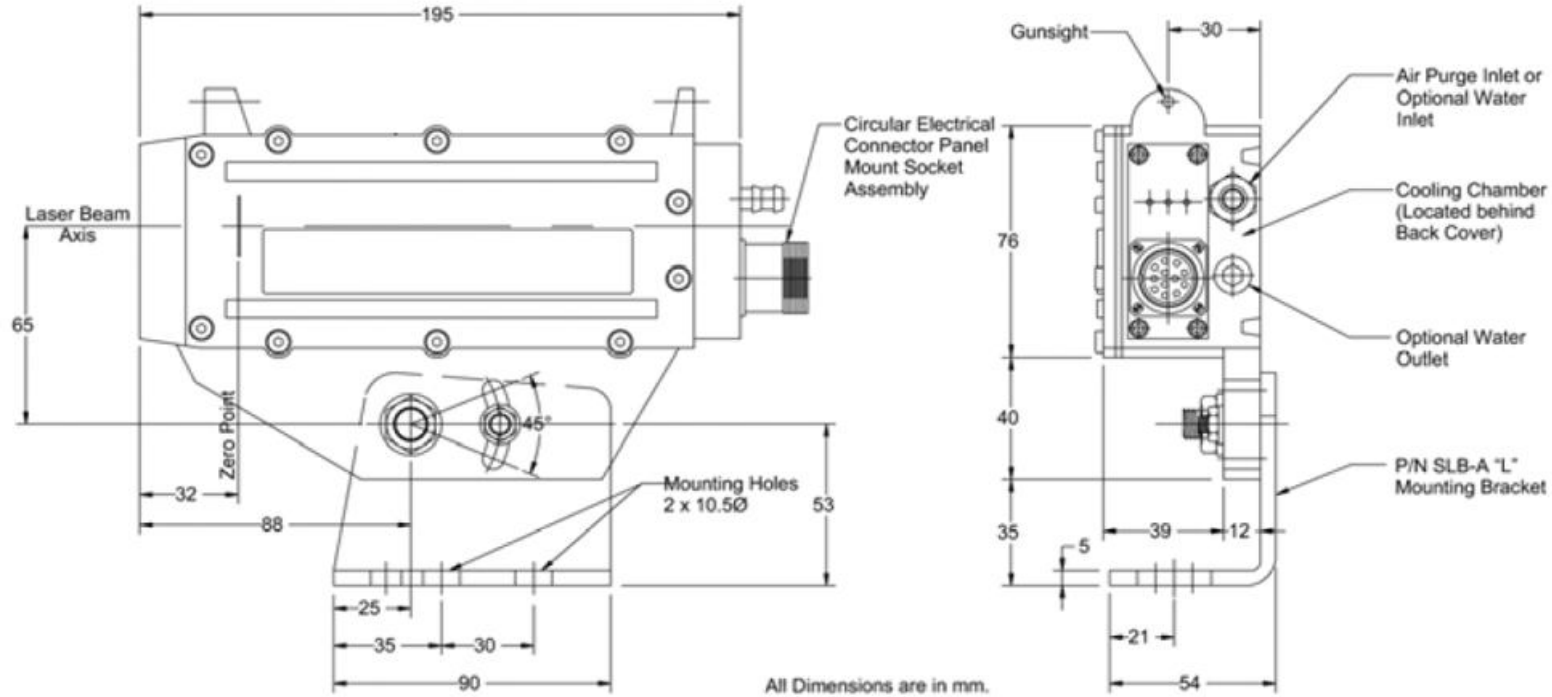
Housing Specifications

Housing: Aluminum AL6, Oven baked blue paint
Housing Rating: IEC IP66, DIN, 89011
Weight w/o Cable: 1.9 Kg (4.2lb)
Connector: IP65 Plug/Socket
Cable Length: 1.5 M Standard up 15 M available
Cooling: Air Cooled & Air Purged /
 Water Cooled & Air Purged

Air & Water Specifications

Air Pressure: 1 cu at 5 PSI for normal conditions
 5 cu at 15 PSI for severe conditions
Water Pressure: 5 to 10 PSI, 40 PSI Maximum
Water Volume: Regulate between 0.2 - 0.3 liters/min.
Water Temp.: For Ambient Temperature up to 80°C use ambient water below 20°C
 For Ambient Temperature up to 80°C use water chilled to 10°C

Dimensions



General Specification

Operating range	Greater than 20 meters using special reflector	Supply Voltage	24 VDC ±20%
Edge Accuracy	3 mm per meter divergence	Power Consumption	1 Watt
Edge Resolution	± 1mm + divergence	Operating Temperature	-10°C to +40°C no cooling -10°C to +60°C w/air cooling +2°C to +80°C with water cooling
Response time	0.05 ms on/off (10 ms lock between edges)		
Laser Wavelength	Visible Red 650nm	Storage Temperature	-20°C to +70°C
Laser Classification	Class II, Safety Class 2 (DIN EN 60825-1)	Output (#1)	Relay Output, Form C Contact (SPNO/SPNC) 250 VAC, 8A, 20 ms response time
Laser Power	1 mW	Output (#2)	Switch selectable NPN & PNP Transistor
Laser Divergence	0.5 mrad	Function Indication	Green LED
Laser Spot Diameter	0.1mm at 10M, 0.2mm at 20M	Contamination Indication	Flashing Yellow LED
MTTF	32,000 h		
Power Indication	Red LED		



Reflector REF-HT1
 Air Purged,
 140°C



Reflector REF-HT2
 Air Purge,
 500°C

Moduloc System Engineering Ltd.

Kexin Building No. 212, Changjiang Road, Yantai Development Zone,
 Yantai, Shandong, China P. R.
 phone: +86-535-2161058 +86-535-2161083
 e-mail: info@mse-intl.com

Zip code: 264006
fax: +86-535-2161090
web: www.mse-intl.com

