Scanning Hot Metal Detector

The Logika Scanning Hot Metal Detector is capable of meeting the steel industry's tough requirements for high repeatability and superior resolution with adjustable gain for low or high temperature product presence detection. The HMD – SM is available in 10°, 30° or 50° scan angles to accommodate any detection area. This sensor can detect product presence with target temperatures as low as 250°C (482°F) with no upper limit. Output response time:

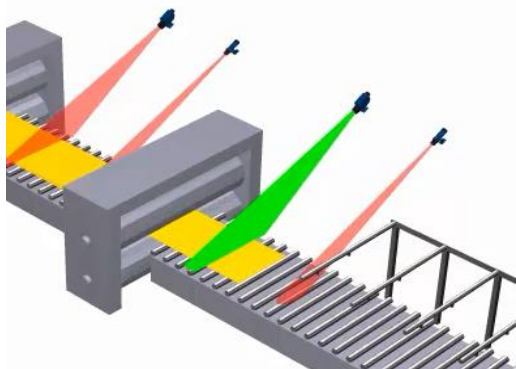1. HMD-SM-10: 1ms.
2. HMD-SM-30: 2ms.
3. HMD-SM-50: 4ms.

$HMD - SM - XX - \ XXX$

Base Model	Scan Angle	Power Input
	10 = 10°	024 = 24 VDC
	30 = 30°	110 = 110 VAC
	50 = 50°	220 = 220 VAC

Operating Temp	-25˚C to +70˚C (-13˚F to +158˚F). With cooling water: +120˚C (250˚F)
Scan Angle	10° / 30 ° / 50°
Detection Range	0.2-8 m
Response Time	Relay < 7 ms, PNP/NPN =10° (1ms), 30° (2 ms), 50° (4 ms)
LED Indicators	Green = power on, Red = target detect
Output	Relay NO/NC @ 5 A, Choice of PNP(S) or NPN (\S) type output @100 mA
Power Input	24 VDC, 110 VAC, 220 VAC @ 5 W
Cable	Insulation 20 MΩ, 500 VDC, ≥500˚C (930˚F)
Housing	Cast aluminium enclosure rated IP66, includes cooling water connections and air purge
Size	Enclosure: 315 mm L x 110 mm W x 264 mm H (with mounting bracket) (12.4" L x 4.3" W x 10.4" H), 7 kg (15.4 lbs)
Laser Aiming	Controlled by push button on the back of housing. Class 2 laser
Self-testing	Self-test activates when test pin connected to 0 VDC OR test button is pressed at the back

Features

➢ Designed for harsh environment with IP66 Enclosure
➢ Integrated air purging and cooling water connection
➢ Test button at the back of sensor
➢ Sensitivity adjustment at back of sensor
➢ Laser pointer for alignment
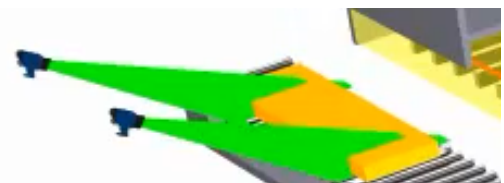➢ Easy to install.
➢ Very fast response time.

Applications

➢ Slab/Billet detection and positioning
➢ Reheat furnace entrance
➢ Reheat furnace exit
➢ Billet detection – continuous casting
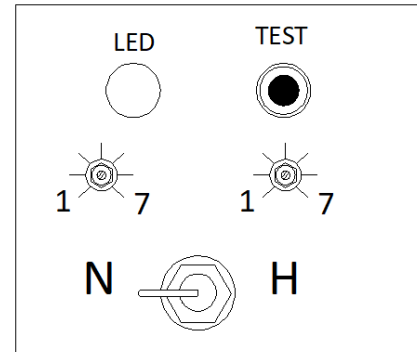➢ Wire Rod Mill / TMT Bar

Additional Options

➢ Junction Box - Includes electrical support components
➢ Shroud - Sheet metal protective cover
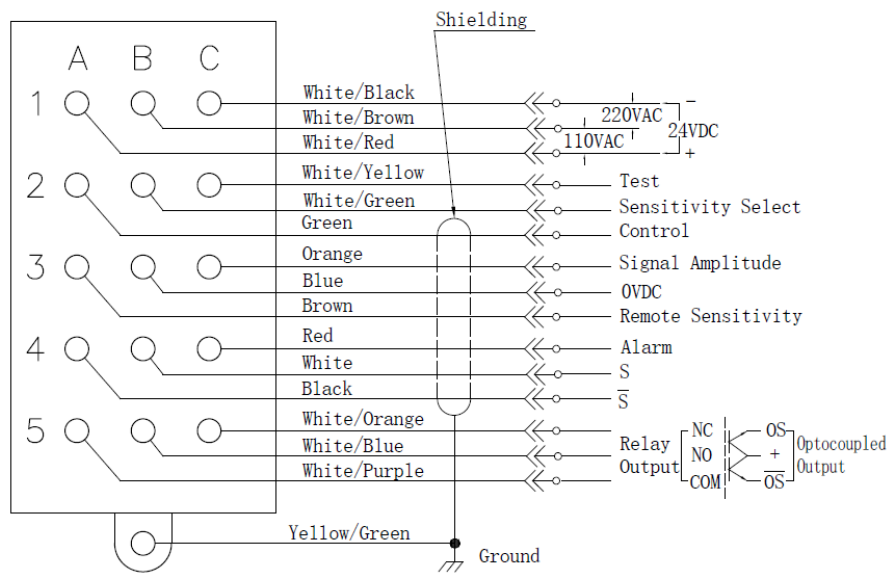➢ Support Stand - Steel Construction - adjustable for mounting sensors

The HMD-SM's Control Panel is located on the back of the housing. The following functions are available on the Control Panel:

LED = Green: HMD is powered.
LED = Red: Hot metal target detected
LED = Orange: Signal saturation or dirty lens

Detector **TEST** and laser aiming button
Potentiometer = Sensitivity range adjustment
N = Normal sensitivity. Detect target temperatures 400°C (752°F) or higher on maximum sensitivity (7)
H = High sensitivity. Detect target temperatures 250°C (482°F) or higher on maximum sensitivity (7)

Cable Terminal Wiring Description.

Enclosure Diagram.