MODULOC SYSTEM ENGINEERING®

MSE-PF100

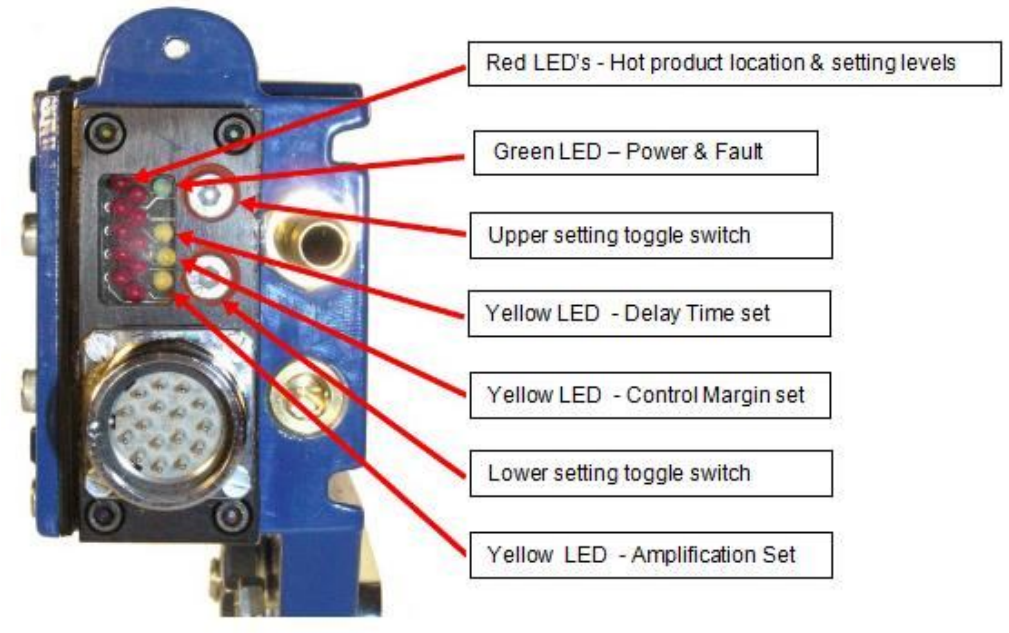
- Bar display of product pass line.
- Operates by signal comparison.
- Hot scale in Field of View, ignored.
- Dirty lens & steam has no significant effect.
- No motor driven rotating mirror
- 1-250 ms response time, adjustable.
- Continuous & remote self-test.
- Relay and Opto-isolated outputs.
- NPN/PNP Switch Selectable Transistor Output （with 24 VDC connection only）
- Robust IP66 aluminum housing with combined air purge & cooling facility.

General Description

The MSE-PF100 Digital Scanner Hot Metal Detector (HMD) utilizes fast microprocessor technology to ensure precise reliable detection.
Where the old style Hot Metal Detectors purely detects the hot product above pre-set thresholds, the Digital Scanner HMD operates by microprocessor comparison of the background and hot product signal. Either static hot scale or steam in the field of view, will not causes false triggering. Furthermore, lens contamination will not raise the trip level.

While static analog Hot Metal Detectors utilize single diode detection and Rotary Scanners, incorporate rotating mirrors, the Scanner HMD utilizes a digitally scanned InGaAs Diode Array. This technology removes the often maintenance like by the Rotary Scanners.

Microprocessor technology provides exceptionally fast and accurate detection of Rod or Strip leading/trailing edge where wide variations of IR signal are present. Response times are digitally adjusted by locking timers. To assist in alignment, product path is duplicated by an LED Bar Display. This is also used to indicate adjustments to precise values.



Rear Bar Display

Red LED’s indicate location of hot product & pre-set levels when Scanner is in Adjustment mode.

All yellow LED’s are on in self-test mode. Top and bottom yellow LED’s mimic outputs except when adjusting a setting or when in self-test mode.

General Description

Scanning Angle (F.O.V.):	Standard: 1° x 15°
Typical Detection	10 mm Rod at 350°C from 2 m and 50 mm Bar at 350°C from 4 m
Sensing Element	Electronically Scanned Photo Diodes
Scan Rate	1,200 Scans / s
Detection Technique	Differential comparison between background and hot product.
Min. Product Temperature	300°C
Product Position Display	10 LED Bar Display
Response Time	1- 250 ms
Output (1)	Cradle Relay Output: SPNO (normally open) contacts. Rated 240VAC, 10A, 20W, 4 ms response time
Output (2)	Opto-Isolated Transistor Output: NO (normally open), 300VAC, 150mA peak, 200mW maximum, isolated to 5 kV, saturation voltage 0.65 to 1.10 V for currents of 10 to 150 mA. Not reversed protected.
Output (3)	Transistor Outputs: PNP & NPN: NO (normally open), 24VDC, 0.5 to 0.75A. Reverse and thermally protected.
Power / Fault Indicator	Green LED for indication that power is on and fault condition
Supply Voltage	24 VDC ± 15%
Power Consumption	5 W
Housing Rating	IEC IP66, DIN 89011
Weight	w/o Cable: 1.9 Kg
Operating Temperature	without air cooling: to +50°C, with air cooling: to +60°C, with water cooling: to +70°C with ambient water below 20°C
Electrical Connector:	IP65 Plug/Socket
Cable Length:	2m

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