



MD 8207A WELD HOLE DETECTOR (Background Suppressed)

Robust sensor for detection of weld holes in passing high velocity metal strip.

This detector only responds to a passing illuminated hole and not to static background or reflected light energy source. This is achieved by utilisation of a filter circuit that solely responds to a passing illumination source.

As the passing weld hole provides a pulsed output, an adjustable latching timer extenuates output. Additional LEDs and outputs facilitate straightforward alignment.

Three outputs are provided. Namely, PNP & NPN N/Open transistor outputs as well as a reed relay output. Available for connection to 24 VDC or 110 VAC.

Adjustable on site to provide 5° to 25° FOV to accommodate various strip widths. Detects weld holes of 10mm or greater size passing at velocities of up to 300 mtrs. per min. Faster velocities can be accommodated according to hole size and light source utilised.

As this Detector incorporates a unique air coolant/purge facility, with an additional heat shield it can be used where strip temperatures are above ambient. For high ambients a water coolant chamber is available.



Weld Hole Detector



Lamp Unit with Lamp Failure Relay
*Short Lamp Unit Illustrated

Other IR Source Options:

- (I) Quartz Halogen Lamp - 250mm length
- (II) IR Bars - 400, 500 & 700mm length

Features

- Universal connection with three outputs
- Detects 10mm hole passing at 300 mtr. per min.
- Self-check facility
- Responds only to 'passing' weld hole
- Air cooled and purged as standard
- 700mm strip wander accommodated with IR bar

Moduloc Technology - The Total Laser Solution

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General Specifications

Detector:

Field of view:	Slit 1° x (5° to 25°)
Recommended mounting:	Above line ½ to 3 metre max.
Min. hole size:	6 Ømm according to strip speed
Min. strip width:	150mm
Max. hole drift:	150mm about centre line
Max. strip speed:	300 – 600 metres/ min. according to hole Ø
Supply voltage:	24 VDC ± 15% (110 VAC option available)
Function outputs:	NPN & PNP, N/Open 500mA plus 1 Amp Reed Relay
Alignment outputs:	Analogue 0 – 6 VDC
LED indication:	Power, Function and Alignment
Electrical connection:	1.5 mtrs. 12 core 0.5 mm. Oilflex core cable
Recommended air purge/coolant note:	3 ft/sec. (1cu.ft/min)
Housing:	IP65 Aluminium AL6, oven baked blue
Weight:	1.6 kilo inc. mounting bracket
Ambient limits:	Standard: - 20°C to + 65 °C Aircooled: - 20°C to + 90°C Watercooled: 1°C to 120°C

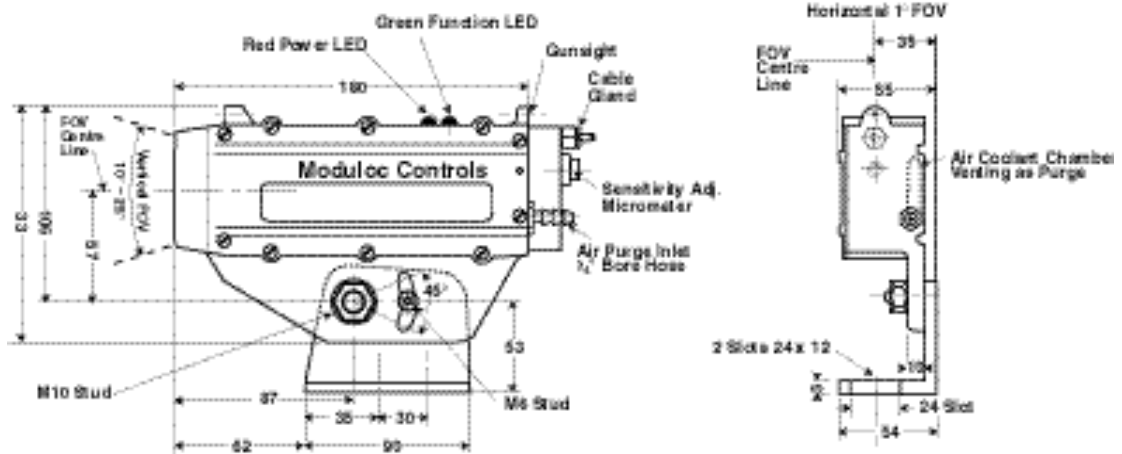
Standard Lamp Unit: (with attached lamp relay)

Recommended mounting:	½ – 1 metre max.
Housing:	IP65 aluminium AL6, oven baked blue
Weight:	4 Kilo
Lamp window:	Tempered glass
Supply voltage:	110 VAC 50/60 Hz (240 VAC option available)
Ambient limit:	- 20°C to +50°C
Lamp failure relay rating:	SPDT 380 VAC / 25 VDC 10 A
Power consumption:	60–80 watts (according to voltage)*
Lamp life:	Run at ½ power
Lamp rating:	150 Watt
LED indication:	Power and lamp failure
Electrical connection:	1.5 mtrs. 6 core 0.5 mm. oilflex cable

- * Extended 250mm quartz halogen lamp - 1000W
- IR Bars - 400, 500 & 700mm - 500-1000W

Dimensions

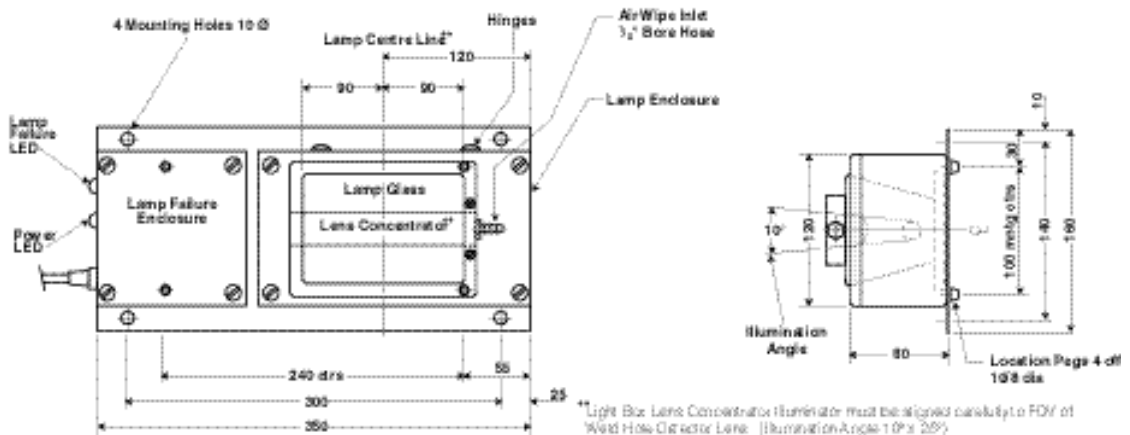
Detector:



- * Provided with 2 metres of cable
- ** Lens Module FOV Reduced/Enlarged by removeable internal shutter

Lamp Unit:

(Standard Version)
See other IR Bar options



** Light Box Lens Concentrator Illuminator must be aligned parallel to FOV of Wide Hole Detector Lens. (Illumination Angle 10° to 25°)