

## MM-L300A - Laser Weld Monitor

### New compact monitor for process development and quality control

The MM-L300A laser weld monitor helps to ensure weld quality and maintain high throughput by providing realtime feedback during the laser welding process to ensure weld success. MM-L300A works by detecting and recording a thermal signal from the area of laser interaction during the welding process. The SU-N300A thermal sensor samples the signal and provides an output waveform around which envelope limits can be set.

### Key features MM-L300A - Laser Weld Monitor

- > The MM-L300A can detect the following production errors:
  - > Gap between parts
  - > Missing part
  - > Out of focus
  - > Absence of cover gas
- > High temporal resolution (down to 1  $\mu$ s) with a dedicated sensor, enables monitoring of both CW and pulsed lasers
- > Envelopes allow real-time comparison and detection of good and bad welds
- > Light weight, compact design reduces set-up space when integrating into production lines
- > Sensor can be mounted either on the optical axis of the laser or off-axis
- > Easy and intuitive operation

## Specifications MM-L300A - Laser Weld Monitor

<b>MM-L300A Controller</b>	.
<b>Input power requirements</b>	Single phase, 90 – 250 VAC 50/60 Hz
<b>Interfaz</b>	15 pin D-sub, Ethernet (RJ-45)
<b>Channel</b>	1
<b>Temporal resolution</b>	Min: 1 μs
<b>Judgement function: Analysis</b>	Waveform
<b>Judgement function: Judgement</b>	Upper and lower limit
<b>Operational temperature range</b>	0 – 40° C (non-condensing)
<b>Operational humidity range</b>	
<b>SU-N300A sensor</b>	.
<b>Monitoring area</b>	Working distance approx. 200 mm, Signal detection diameter - about ø 2 mm
<b>Guide light</b>	Green LED
<b>Monitoring wavelengths</b>	1,300 – 2,500 nm
<b>Operational temperature range</b>	5 – 50°C (non-condensing)
<b>Operational humidity range</b>	
<b>Protection level</b>	IP64 with connector
<b>WEIGHT &amp; DIMENSIONS</b>	
<b>MM-L300A without connector dimensions (LxWxH)</b>	243 mm x 230 mm x 89 mm (9.6 in x 9.1 in x 3.5 in)
<b>MM-L300A without connector weight</b>	3.0 kg (6.6 lb)
<b>Sensor without connector dimensions (LxWxH)</b>	35 mm x 50 mm x 96 mm (1.4 in x 2 in x 3.8 in)
<b>Sensor without connector weight</b>	0.2 kg (0.44 lb)

Product applications MM-L300A - Laser Weld Monitor



Seam weld example

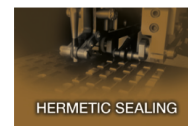


Spot weld example

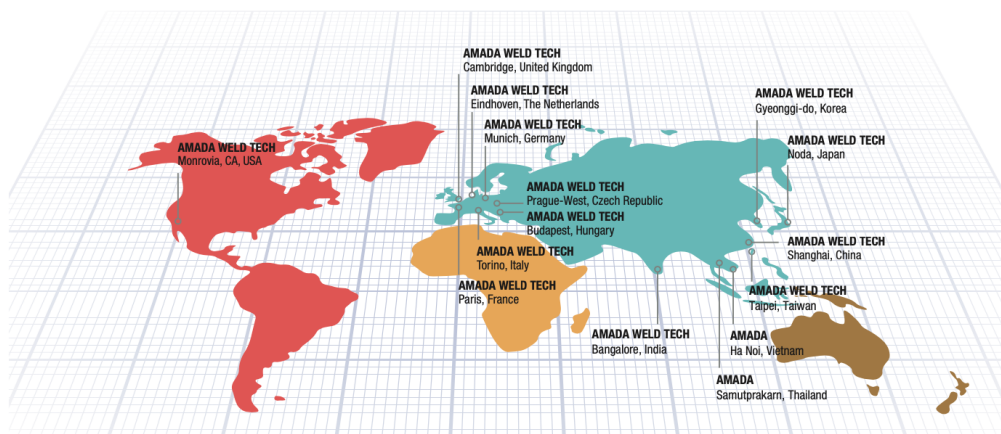
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