

## 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>Schnittstelle</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>GEWICHT UND ABMESSUNGEN</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

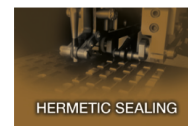


Spot weld example

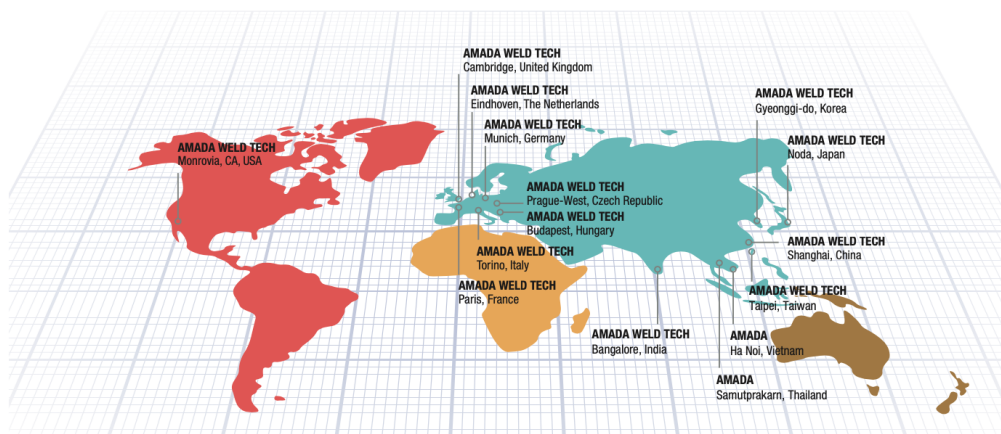
# AMADA®

## AMADA WELD TECH

### OUR TECHNOLOGIES



### OUR SALES OFFICES



**AMADA WELD TECH GmbH**  
Lindberghstrasse 1 • DE-82178 Puchheim, Germany  
T: +49 (0) 89 83 94 030 • Fax : +49 (0) 89 839403 68  
info@amadaweldtech.eu • www.amadaweldtech.eu  
ISO 9001 Certified Company

Please contact our worldwide  
network here:



follow us on:



All data, images and text are subject to change at any time. AMADA WELD TECH GmbH reserves the right to change, modify, delete and add technical specifications and product details at any time without prior notification. © 2020 AMADA WELD TECH GmbH.

**WWW.AMADAWELDTECH.EU**