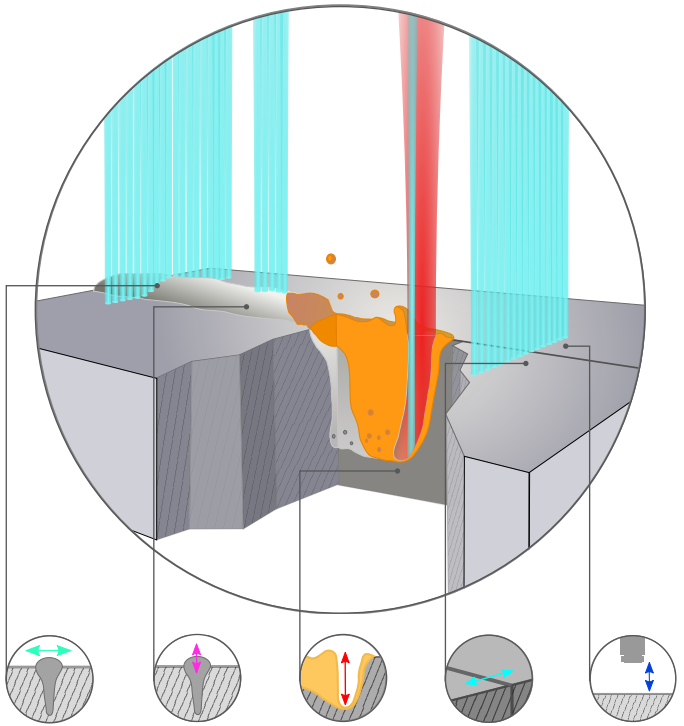




LDD-700

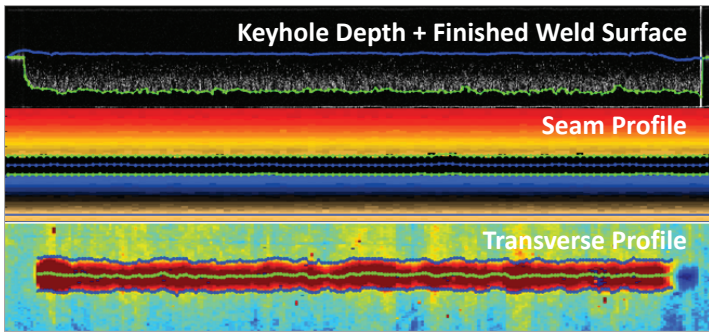
In-line Scanning Weld Monitor

NEW PRODUCT



- Transverse Profile**
 Measures the finished weld bead transverse profile.
- Finished Weld Surface**
 Measured just behind the melt pool captures the height of the finished weld bead.
- Keyhole Depth**
 Measured inside the keyhole during the weld to determine actual weld penetration depth in real time.
- Seam Profile**
 A sweep ahead of the process looks for joint position on the workpiece.
- Workpiece Height**
 Measures the distance between the material surface and the welding optics.

IPG Photonics introduces the in-line weld monitor for remote scan welding applications. Paired with our IPG OmniWELD Scanning software the LDD-700 offers five monitoring modes: keyhole depth, seam profile, workpiece height, finished weld surface height and bead profile—all from a single instrument. Active steering of the ICI beam allows OmniWELD to seek out defects immediately before, during, and after the welding process. These capabilities are available in a single presentation of the part with little to no additional cycle time or fixturing required.



The optimal combination of measurement types, locations, and PASS/FAIL criteria for each weld process can be easily configured in software, simplifying replication on multiple systems.

LDD-700

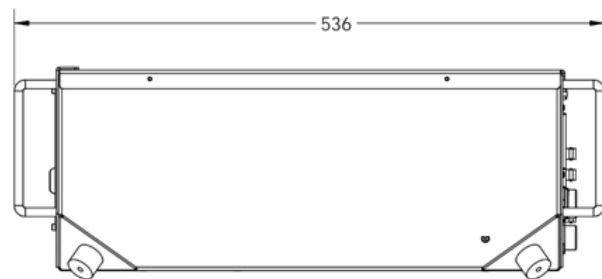
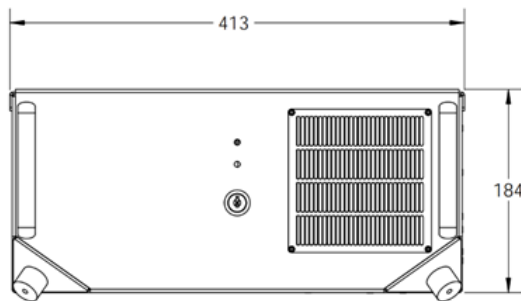
In-line Scanning Weld Monitor

Optical Characteristics

Imaging Wavelength, nm	800-900
Power, mW	<20
Measurement Frequency, kHz	250
Axial Resolution, μm	<20
Axial Field of View, mm	6, 9, 12
Transverse Field of View, mm	Up to 40 (Application Dependent)

General Characteristics

Control Unit Dimensions, (W \times D \times H), mm	413 \times 586 \times 184
Head Interface Dimensions (W \times D \times H), mm	128 \times 74 \times 89
Optics Module Dimensions (W \times D \times H), mm	330 \times 111 \times 136
Head Interface Compatibility	FLW-D30, D50, D30 Wobble, D50 Wobble, 2D High-Power Scanner and Mid-Power Scanner
Cooling	Air-cooled
Supply Voltage, V	100 to 250
Power Consumption, W	<500 typ.
Real Time Control Outputs	-10 to 10 V analogue, TCP/IP, Fieldbus
Communication Protocols	Devicenet, TCP/IP, Ethernet/IP, Hardwire IO



176 Railway Street, Kingston, Ontario, K7K 2L9 Canada
 +1 (613) 887-2331; sales.ca@ipgphotonics.com

www.ipgphotonics.com

Legal notices: All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind IPG only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with use of a product or its application. IPG, IPG Photonics, The Power to Transform and IPG Photonics' logo are trademarks of IPG Photonics Corporation. © 2011-18 IPG Photonics Corporation. All rights reserved. US Patents 8,822,875; 9,457,428; and 9,757,817

The Power to Transform®