

## WELDCHECK 4.1

### Process sensor for laser welding

#### Process Monitoring – Quality Control

The **WELDCHECK system** analyses the light emitted by the welding process in real time and over a wide spectral range. Deviations in the weld are detected and reported automatically. After 20 years on the international market **WELDCHECK** from **Lessmüller Lasertechnik** enjoys unchanged popularity. In its latest version, **WELDCHECK** offers a slim design, excellent usability, and easy connections to industrial fieldbuses. Thanks to its compact design, **WELDCHECK 4.1** can be mounted elegantly into the laser source, or into any common laser processing head.



WELDCHECK sensor

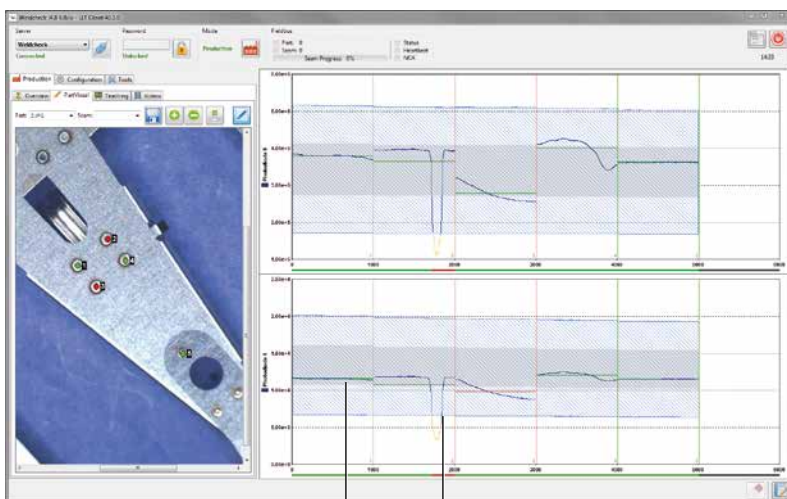


WELDCHECK control unit

#### Your advantages:

- Real time monitoring of your welding process
- Immediate evaluation, and online failure detection
- Wide spectral analysis range (320 nm to 1650 nm)
- Simple mounting of sensor and evaluation unit
- Excellent usability, easy configuration and reference teaching
- Compact, robust, and cost-effective design

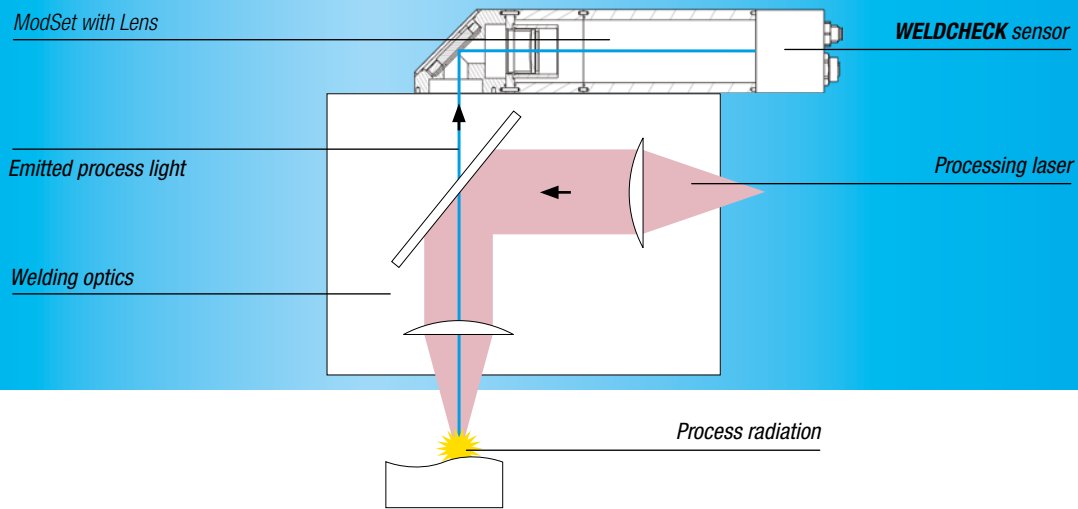
#### Real-time process monitoring:



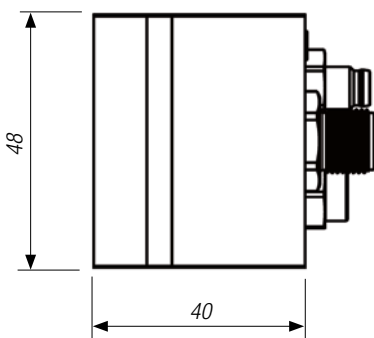
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#### Detectable faults:

- Deviation of processing laser power
- Contaminated optics and protection glasses
- Shift of focus position
- Out of range joint gap
- Positioning errors
- Changes in weld depth
- Contaminated work piece surface
- Seam breakthrough



### Technical data:



#### Optical data

Wavelength range of receiver	320 - 1000 nm and 1100 - 1650 nm
Scanning frequency	25 kHz

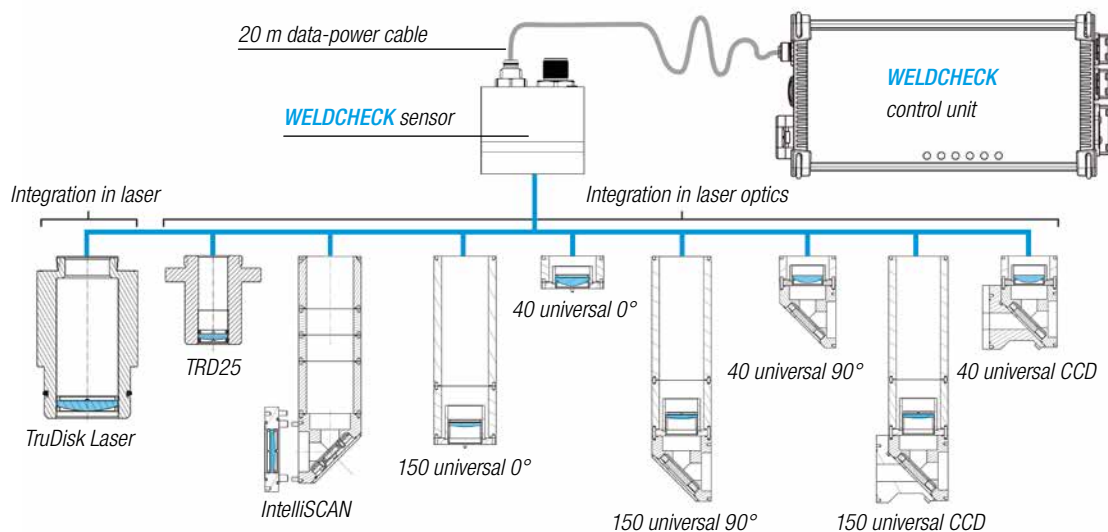
#### Communication interfaces

Fieldbus protocols	Profinet, Ethernet/IP, Ethercat, Profibus, Devicenet
Data and service protocol	Ethernet TCP/IP
Connection	2x RJ45, 100 Mb/s
Internal interfaces	CAN

#### Electrical data

Supply voltage of control unit	+24 VDC
Current consumption	0.5 A
Supply voltage of sensor	+12 VDC from control unit

### ModSets for adaption to various laser processing optics



Our team supports your application testing as well as system planning and integration on- and off-site.



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