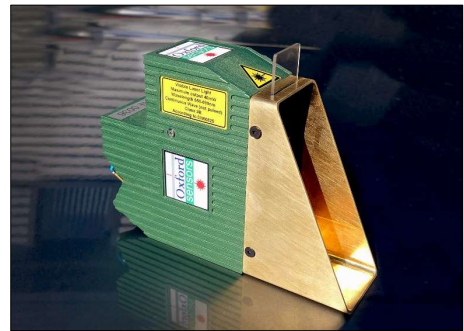


OSL Sensor Datasheet

OSL Range of Laser Sensors for Welding

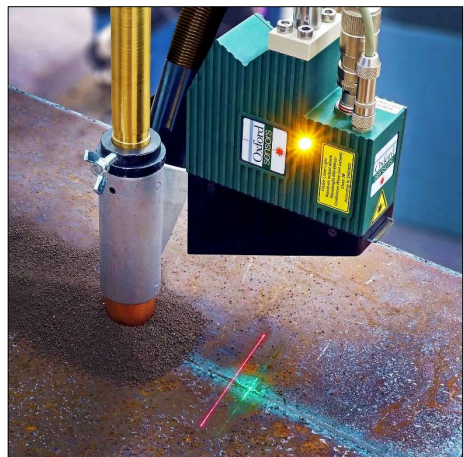
OSL's range of laser sensors has been designed with the benefit of 30 years' experience in the practical use of laser vision systems in welding applications.

Particular attention has been paid to making the sensors easy to use. In addition to the normal red laser line, each standard sensor incorporates a green laser cross which makes installation, setup and monitoring easier.



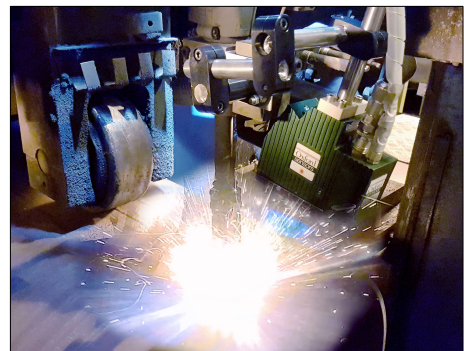
Features

- Robust body with integral cooling and blow off
- Replaceable front window
- High quality uniform laser line projector
- Additional laser cross for easy setup
- High resolution
- Excellent depth of field with high standoff
- Low power dissipation
- Designed for high temperature operation
- Easy to install, setup and operate



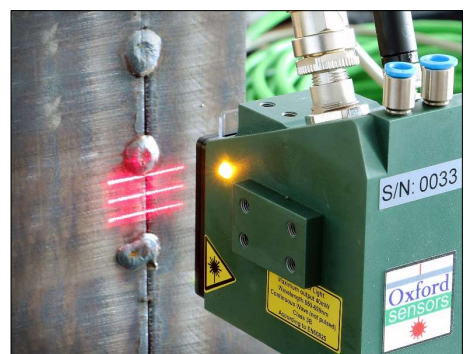
Benefits

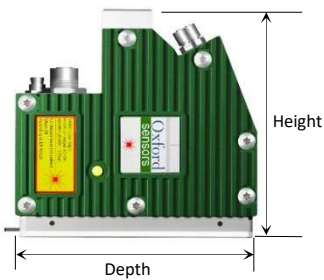
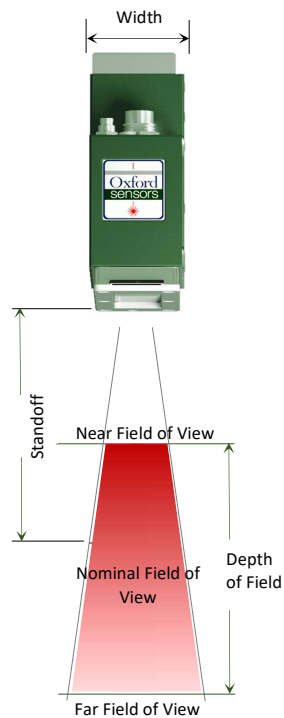
- Accurate electrode placement in the joint
- Higher quality welds
- Increased productivity
- Reduced defects & rework
- Improved environment for factory staff



In addition to the range of standard laser sensors described in this datasheet, OSL also has available special laser sensors optimised for particular applications, including:

- High precision sensor for laser/TIG/Plasma welding
- Scanning spot laser sensors for narrow gap and semi narrow gap welding
- Three stripe laser sensors for special applications
- Compact laser sensors for pipe ID welding





OSL-25A			
Field of View	Near FOV	22mm	@ -15mm
	Nominal FOV	25mm	
	Far FOV	28mm	@ +25mm
Depth of Field		40mm	
Resolution	Horizontal	0.013mm	@ nominal
	Vertical	0.033mm	@ nominal
Standoff	Nominal	100mm	
Dimensions*	Width	44mm	
	Depth	105mm	
	Height	132mm	

OSL-50A			
Field of View	Near FOV	40mm	@ -25mm
	Nominal FOV	50mm	
	Far FOV	70mm	@ +45mm
Depth of Field		65mm	
Resolution	Horizontal	0.026mm	@ nominal
	Vertical	0.082mm	@ nominal
Standoff	Nominal	125mm	
Dimensions*	Width	44mm	
	Depth	110mm	
	Height	106mm	

OSL-100A			
Field of View	Near FOV	60mm	@ -50mm
	Nominal FOV	100mm	
	Far FOV	160mm	@ +130mm
Depth of Field		150mm	
Resolution	Horizontal	0.052mm	@ nominal
	Vertical	0.15mm	@ nominal
Standoff	Nominal	150mm	
Dimensions*	Width	44mm	
	Depth	110mm	
	Height	108mm	

* excluding spatter shield

General OSL Sensor Data		
Temperature	Operating	0 to +55 °C
	Storage	-20 to +60 °C
Cooling		Gas or Water Cooling
Camera	Frame Rate	30 to 100 fps
	Windowing	Yes
Laser	Power	50mW
	Structure	Single Stripe
	Wave Length	Typically, 685 nm (660nm – 699nm)
	Safety Class	3B (IEC60825-1:2014)
Interface		Gigabit Ethernet
Cable Length	Standard	10m
	Maximum	50m
Power		24VDC +/-10%
Weight		800 g

Oxford Sensors Ltd.
 Unit 11 Arena 14
 Bicester Park, Charbridge Lane
 Bicester OX26 4SS
 United Kingdom

Web: oxfordsensors.com
 Email: info@oxfordsensors.com
 Tel: +44 1869 250791

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