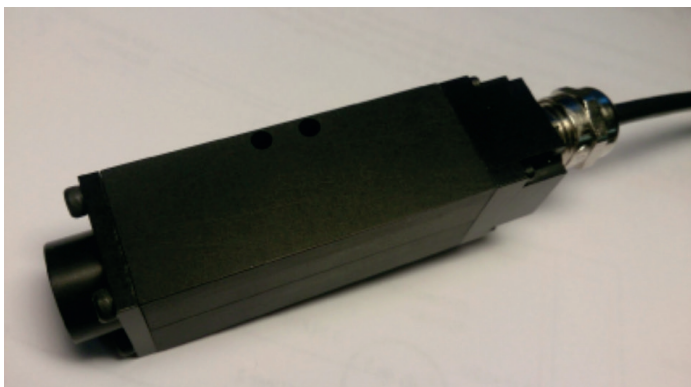


### MINIATURE WELDING CAMERA SYSTEM



In semi-automatic or automatic welding systems the operation and control of the welding head mainly occurs from a control station. Optimal positioning and adjustment of the welding process requires a visual inspection.

The WCS-M is a small analogue **colour** camera incorporating Native Wide Dynamic Range™ sensor technology employing a solar cell pixel structure. This offers a true logarithmic response giving optical illumination without saturation with more than 140dB of true dynamic range.

Our Miniature Welding Camera Solution (system only 20 x 20 x 79mm) is ideal for use in small and tight viewing areas. The camera delivers a sharp colour picture which permits optimal viewing of the welding head, workpiece and the welding arc. The camera automatically compensates exposure during switchover to arc-ignition. It is available with PAL / NTSC output cables.

The camera accepts M12 lenses and can also be fitted with a C-mount lens adapter.

Our other welding camera systems include :

WCS-Z	Zoom Lens Camera System
WCS-Z2F	Two Filter Zoom Lens Camera
WCS-P	Prime Lens Camera System
WCS-P2F	Two Filter Prime Lens Camera
WCS-SM	Super Mini Monochrome Camera
WCS-U	Miniature Colour USB Camera

**Please contact SeeSense for further details and advice about suitable lenses:**

[www.seesense.eu](http://www.seesense.eu) [nigel@seesense.eu](mailto:nigel@seesense.eu)

#### Features:

- Miniature camera system (no Control Unit)
- Ideal for viewing all welding processes in small and tight locations
- ONLY 20 x 20 x 79mm
- 2/3-inch sensor
- Global Shutter
- True Logarithmic **Colour** Sensor
- Standard PAL or NTSC output
- Wide Dynamic Range with 140 dB
- Totally Automatic operation
- Automatic switch-over at arc-ignition
- M12 lens (S-mount) or C-mount adapter
- Optional Water Cooling System

#### Specification:

Power Requirements	12 V DC
Power Supply	5-12 V DC
Image Sensor	NSC1003 2/3-inch CMOS Global Shutter Colour Sensor with IR cut filter
Output Pixels	1280 x 1024 (8.7 x 7mm) 6.8µm pixel
Output system	PAL (25 fps interlaced) / NTSC (30 fps interlaced)
Lenses	M12 - S-mount Comprehensive range available Please contact SeeSense with your requirements
Aperture	Depends upon lens selection
Resolution	460 TV lines standard (vertical and horizontal)
Spectral Range	450 - 670 nm (450 -1050 nm without IR filter)
Shutter Mode	Fixed
Frame Rate	PAL 25 fps / NTSC 30 fps (interlaced)
Dynamic Range	140 dB, logarithmic
Gain	Fixed
Camera cable	1.5m cable with shielded 2-core coax RCA plug plus power cable. Extension cable available, contact SeeSense for your required length
Cooling	Optional water cooling system Uses 4mm push in connectors
Mount	Camera - 2 x M12 screw (S-mount) Cooling plate - Standard camera mount
Dimensions	Camera Head: 20mm (W) x 20mm (H) x 79mm (D) (Excluding Cable Gland)
Operating temp.	0 - 80°C
Weight	Camera Head: 60 grammes

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