

SOL

165, 341, 342

- Z axis measuring to enable 3D features.
- Equipped with a high-resolution camera-based system to get fast, accurate measurements on a variety of parts.
- Provides vivid pictures through a programmable optical (6.5X) and digital (3X) zoom lens.
- Includes InSpec Metrology Software[®] with program compatibility to automated machines.
- Uses proprietary edge detection to capture data.
- Offers advanced programmable lighting control.
- Includes non-linear stage and optics calibration to compensate for systematic variation.



Product information is subject to change without prior notice as a result of ongoing technical development.

Technical Specifications

	Sol 165	Sol 341	Sol 342
Physical			
Measurement Volume [mm]	160 x 160 x 160	315 x 315 x 160	315 x 315 x 250
Stage Capacity [kg]	7.5	11	11
Exterior Dimensions [mm]	630 x 732 x 773	939 x 1114 x 825	939 x 1114 x 1015
Linear Resolution [µm]	1.0		
Electrical			
Input Voltage [VAC]	100-240		
Power Consumption (Max) [W]	120		
Power Consumption (Idle) [W]	45		
Power Consumption (Sleep) [W]	35		
Environmental			
Operating Temperature [°C]	18 - 27; <1 change per hour, <2 change per day		
Storage Temperature [°C]	0 - 50		
Relative Humidity	30% - 80% (Non-Condensing)		
Sound Level [dB(A)]	< 70		
Max Altitude [m]	4000		

Stage capacity is based on an evenly distributed load.

Machine Configurations

Camera:

Color Camera:

- Utilizes white illumination system.
- Offers vivid chromatic information increasing the contrast of color parts.

Optical Sensor:

Standard Zoom Range Lens or 6x Lens:

- Has an optical and digital hybrid zoom range of 19.5:1.
- Achieves an optical configuration and magnification of $\approx 20x - 390x^*$.

Optical Multiplier Options:

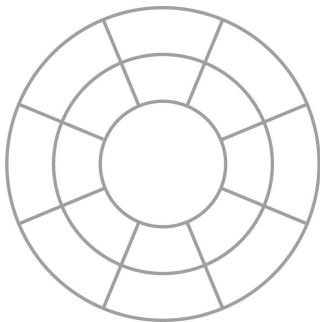
A. No Multiplier or Long Working Distance:

- The optical magnification is maintained for both lens options.
- The working distance is ≈ 66 mm.

B. 2x Optical Multiplier or Short Working Distance:

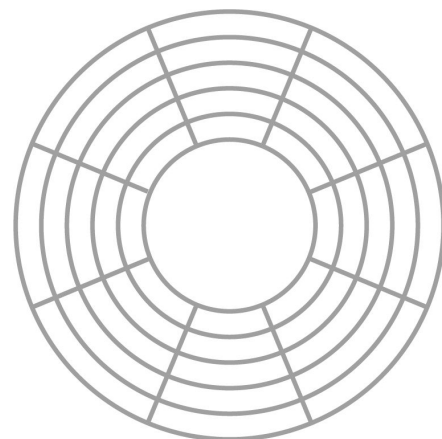
- Doubles the optical magnification of the lens and simultaneously shrinks the field of view by half.
- Significantly shrinks the working distance to ≈ 25 mm.

Ringlight Options:



A. Standard Ringlight:

- Offers 2 rings, 8 sections, and 16 segments of programmable lighting options.
- Suffice the basic needs of programmable surface lighting.

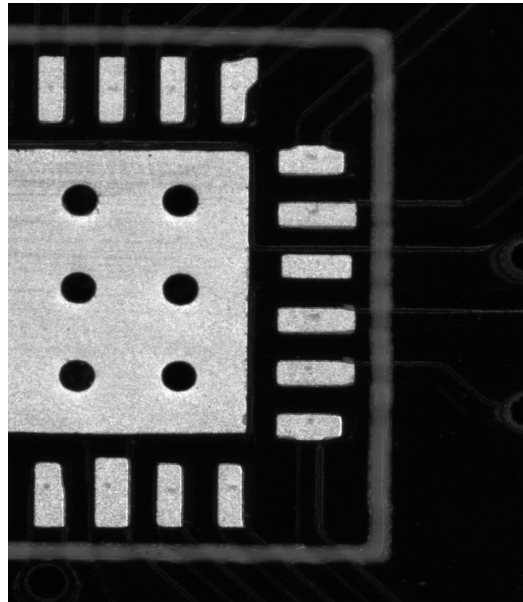
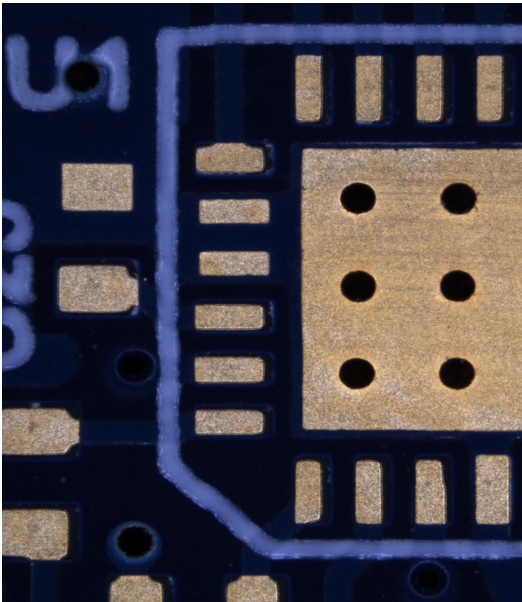


B. Macro Ringlight:

- Offers 5 rings, 8 sections, and 40 segments of programmable lighting options.
- Improved image contrast for parts with complex surface geometry.

Configuration Options

Camera Options:



A. Color Camera:

- Utilizes white illumination system.
- Offers vivid chromatic information increasing the contrast of color parts.

B. Monochrome Camera:

- Utilizes red illumination system.
- Offers higher optical resolution compared to a color system.

Optical Sensor Configuration Options:

A. Standard Zoom Range Lens or 6x Lens:

- Has an optical and digital hybrid zoom range of 19.5:1.
- Achieves an optical configuration and magnification of $\approx 20x - 390x^*$.
- Its simplicity and compactness usually allows for higher accuracy measurements and a longer life span.

B. Extended Zoom Range Lens or 12x Lens:

- Has an optical and digital hybrid zoom range of 36:1.
- Achieves an optical configuration and magnification of $\approx 15x - 540x^*$.
- Offers a larger field of view in low magnification and higher resolution in high magnification.

*Monitor size and resolution affect on screen magnification.

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Machine Configurations

Camera:

Color Camera:

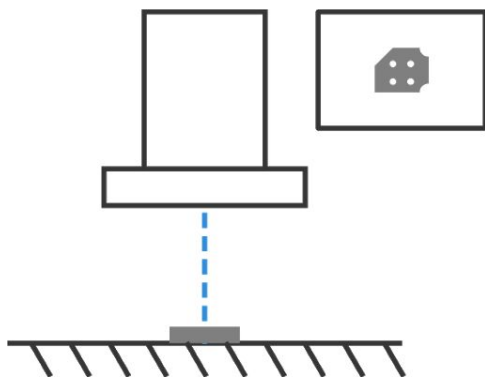
- Utilizes white illumination system.
- Offers vivid chromatic information increasing the contrast of color parts.

Optical Multiplier Options:

A. No Multiplier or Long Working Distance:

Distance:

- The optical magnification is maintained for both lens options.
- The working distance is ≈ 66 mm.



Optical Sensor:

Standard Zoom Range Lens or 6x Lens:

- Has an optical and digital hybrid zoom range of 19.5:1.
- Achieves an optical configuration and magnification of $\approx 20x - 390x^*$.

B. 2x Optical Multiplier or Short Working Distance:

Distance:

- Doubles the optical magnification of the lens and simultaneously shrinks the field of view by half.
- Significantly shrinks the working distance to ≈ 25 mm.

