



# SPECIFICATIONS



## PrimeScan R5|C5 — 5.0 Megapixel

### System

Camera sensor	s/w or color CMOS 2/3"
Camera resolution	2 x 5.013.504 Pixel (2.448 x 2.048)
Projection unit	Miniaturized Projection Technique
Projection resolution	28.723.200 Pixel (6.144 x 4.675)
Light source	100 W High Power-LED (blue or white)
Minimum measuring time	1 s
Sensor weight	3,8 kg <sup>(1)</sup>
Power supply	AC 110/230 Volt, 50-60 Hz, external, 150 W
Control unit	Integrated, USB 3.0
Operating system	Windows 7 or Windows 10, 64 Bit

### Fields of view

#### Small Working distance

Triangulation angle: 26 degrees  
Working distance: 370 mm

Field of view [mm] <sup>(2)</sup>	50	125	200	400
Field of view size [mm] <sup>(3)</sup>	40 x 30	100 x 80	150 x 125	300 x 275
Measuring depth [mm] <sup>(4)</sup>	24	64	100	200
X, Y resolution [µm] <sup>(5)</sup>	16	40	63	125
Resolution limit (Z) [µm] <sup>(6)</sup>	3	7	11	23
Feature accuracy [µm] <sup>(7)</sup>	4	7	12	20

#### Large Working distance

Triangulation angle: 18 degrees  
Working distance: 540 mm

Field of view [mm] <sup>(2)</sup>	750	1000
Field of view size [mm] <sup>(3)</sup>	550 x 500	700 x 625
Measuring depth [mm] <sup>(4)</sup>	375	480
X, Y resolution [µm] <sup>(5)</sup>	230	291
Resolution limit (Z) [µm] <sup>(6)</sup>	60	75
Feature accuracy [µm] <sup>(7)</sup>	56	97

## Annotation:

All fields of view (FOV) are integral part of the system, their configuration cannot be changed. Each field of view is delivered as separate device.

## Please note:

All data and values specified in this data sheet are typical values and apply to a single capture with blue LED and monochrome cameras. Actual values may differ up to 20%, values of systems with color cameras may differ a further 20%. The measurement specifications are average values for the central area of the measuring field which are achieved under predefined measuring conditions and after precise calibration of the sensor. They apply solely in combination with a system configuration provided by AICON 3D Systems. Furthermore, all resolution and accuracy values are dependent on the properties of the object surface as well as the ambient scanning conditions.

- (1) Weight may vary depending on the measuring fields.
- (2) Each field of view (FOV) is equal to a separate scanner.
- (3) Lateral expansion (X x Y) in the center of the measuring volume.
- (4) Depth of the measuring volume (Z).
- (5) The values for the lateral resolution have been calculated theoretically (ratio of the size of the FOV and number of pixels of the camera chip).
- (6) The resolution limit is defined as the theoretically achievable resolution.
- (7) Characteristic feature accuracy of the type series. The determination of the feature accuracies is based on VDI Guideline 2634 sheet 3.

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AICON 3D Systems GmbH - Part of Hexagon  
Biberweg 30 C | D-38114 Braunschweig  
tel. +49 (0)531 58 000 58  
[www.aicon3d.com](http://www.aicon3d.com) | [info@aicon.de](mailto:info@aicon.de)