

## OC539821

### CAMERA SENSORS • CAMERA SENSORS

Camera sensors are used to simultaneously check various properties of objects (e.g., completeness, dimensional accuracy, position, damages, labeling). This takes place independent of the component position virtually in real time. Camera sensors are image processing systems that combine image sensor and image processing computer with image processing software in a metal housing. Depending on the version, lens and illumination unit are also integrated in the housing or must be additionally mounted. The camera sensors are set using an intuitive software program. On the device, object-specific check programs can be stored that contain the respective feature checks. These programs can be activated depending on the object that is to be inspected. The rugged housing design makes possible use under harsh environmental conditions.



#### MECHANICAL DATA

|                             |                     |
|-----------------------------|---------------------|
| Ambient temperature (MAX)   | 50 °C               |
| Ambient temperature (MIN)   | 5 °C                |
| Degree of protection (IP)   | IP67                |
| Housing coating             | With powder coating |
| Housing material            | Aluminium           |
| Material of optical surface | PMMA                |
| Sensor height               | 113 mm              |
| Sensor length               | 50 mm               |
| Sensor width                | 53 mm               |

#### ELECTRICAL DATA

|   |        |
|---|--------|
| Error image memory                                    | 8      |
| Feature comparison, color arrangement                 | Yes    |
| Feature comparison, color determination               | Yes    |
| For interchangeable lens (C-mount)                    | Yes    |
| Input voltage at DC (MAX)                             | 30 V   |
| Input voltage at DC (MIN)                             | 8 V    |
| Integrated flash controller for external illumination | Yes    |
| Max. output current                                   | 100 mA |
| No-load current                                       | 208 mA |
| Number of digital inputs                              | 5      |
| Number of digital outputs                             | 5      |
| Number of pins  | 12     |
| Number of pins of the communication interface         | 4      |
| Number of switching outputs                           | 5      |
| Operating voltage (MAX)                               | 30 V   |
| Operating voltage (MIN)                               | 18 V   |
| Power consumption                                     | 5 W    |
| Property picture system                               | Colour |

**ELECTRICAL DATA**

|  |                           |
|--|---------------------------|
| QR code and barcode identification               | No                        |
| Reverse polarity protection                      | Yes                       |
| Setting procedure                                | Application software      |
| Short-circuit-proof                              | Yes                       |
| Type of communication interface                  | Connector M12             |
| Type of electrical connection                    | M12-connector             |
| Type of plug-in contact, communication interface | Female (socket)           |
| Type of switching function                       | Programmable/configurable |
| Type of switching output                         | PNP                       |
| With communication interface, Ethernet           | Yes                       |
| With communication interface, RS-232             | No                        |
| With communication interface, RS-485             | No                        |
| With Ethernet/IP                                 | Yes                       |
| With Profinet                                    | No                        |
| With RS485                                       | No                        |

**OPTICAL DATA**

|  |            |
|--|------------|
| Dimensional accuracy                     | Yes        |
| Feature comparison, area size            | Yes        |
| Feature comparison, brightness           | No         |
| Feature comparison, contour comparison   | Yes        |
| Feature comparison, contrast             | No         |
| Feature comparison, count areas          | Yes        |
| Feature comparison, count contour points | Yes        |
| Feature comparison, pattern comparison   | Yes        |
| Focal distance                           | Variable   |
| Geometry - angle                         | Yes        |
| Geometry - circle                        | Yes        |
| Geometry - count edges                   | Yes        |
| Geometry - distance                      | Yes        |
| Geometry - point position                | Yes        |
| Geometry of edge contour                 | Yes        |
| Image recorder                           | CMOS(1/3") |
| Measuring time for high resolution       | 12 fps     |
| Object evaluation regardless of position | Yes        |
| Part location on circle                  | Yes        |
| Part location on contours                | Yes        |
| Part location on edges                   | Yes        |
| Part location on text line               | Yes        |
| Pick and place                           | Yes        |
| Resolution                               | 1280x960   |
| Testing and sorting                      | Yes        |
| Text identification (OCR)                | No         |

**OTHER DATA**

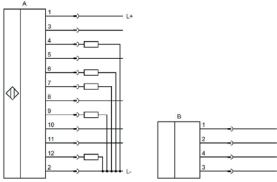
|   |                         |
|---|-------------------------|
| Air humidity                                | 0 ... 90% noncondensing |
| Shock resistance in acc. with EN 60068-2-27 | Yes                     |

## OTHER DATA

Vibration resistance in acc. with IEC 60068-2-6 / IEC 60068-2-64

Yes

## CONNECTION

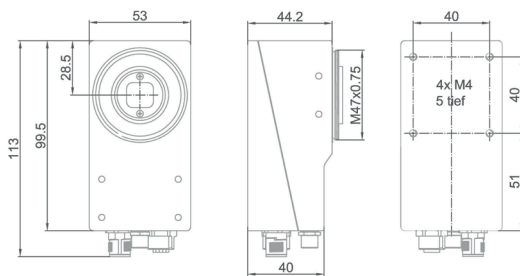


**Colors:** A: 1 = BN (brown), 2 = BU (blue), 3 = WH (white), 4 = GN (green), 5 = PK (pink), 6 = YE (yellow), 7 = BK (black), 8 = GY (gray), 9 = RD (red), 10 = VT (violet), 11 = GY/PK (gray/pink), 12 = RD/BU (red/blue)

B: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black) **Functions:** A: 1 = L+, 2 = L-, 3 = trigger, 4 = out 1, 5 = in 2, 6 = out 2, 7 = out 3, 8 = in 3, 9 = out 4/ RS485, 10 = in 4, 11 = in 5, 12 = out 5/RS485

B: 1 = TD+, 2 = TD-, 3 = RX+, 4 = RX-

## DIMENSIONAL DRAWING



## INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

## DISPOSAL



## SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.