

## OC539521

### 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	5 °C ... 50 °C
Degree of protection (IP)	IP67
Housing material	Aluminium
Material of optical surface	PMMA
Sensor height	113 mm
Sensor length	38 mm
Sensor width	53 mm

#### ELECTRICAL DATA

Error image memory	32
Input voltage at DC	8 V ... 30 V
Max. output current	100 mA
Measuring time for high speed	100 fps
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	18 V ... 30 V
Power consumption	5 W
QR code and barcode identification	Yes
Reverse polarity protection	Yes
Setting procedure	Application software
Short-circuit-proof	Yes
Type of electrical connection	M12-connector
Type of switching function	Programmable/configurable
Type of switching output	PNP
With communication interface, Ethernet	Yes

**ELECTRICAL DATA**

With Ethernet/IP	Yes
------------------	-----

**OPTICAL DATA**

Dimensional accuracy	Yes
----------------------	-----

Feature comparison, area size	Yes
-------------------------------	-----

Feature comparison, brightness	Yes
--------------------------------	-----

Feature comparison, contour comparison	Yes
--	-----

Feature comparison, contrast	Yes
------------------------------	-----

Feature comparison, count areas	Yes
---------------------------------	-----

Feature comparison, count contour points	Yes
--	-----

Feature comparison, pattern comparison	Yes
--	-----

Focal distance	16mm
----------------	------

Geometry - angle	Yes
------------------	-----

Geometry - circle	Yes
-------------------	-----

Geometry - count edges	Yes
------------------------	-----

Geometry - distance	Yes
---------------------	-----

Geometry - point position	Yes
---------------------------	-----

Image recorder	CMOS(1/3")
----------------	------------

Light source	White light
--------------	-------------

Measuring time for high resolution	50 fps
------------------------------------	--------

Minimum distance	70 mm
------------------	-------

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	752x480
------------	---------

Testing and sorting	Yes
---------------------	-----

Text identification (OCR)	Yes
---------------------------	-----

**OTHER DATA**

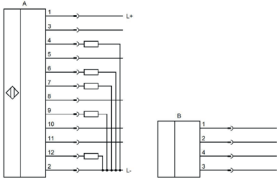
Air humidity	0 ... 90% noncondensing
--------------	-------------------------

Risk groups	1
-------------	---

Shock resistance in acc. with EN 60068-2-27	Yes
---	-----

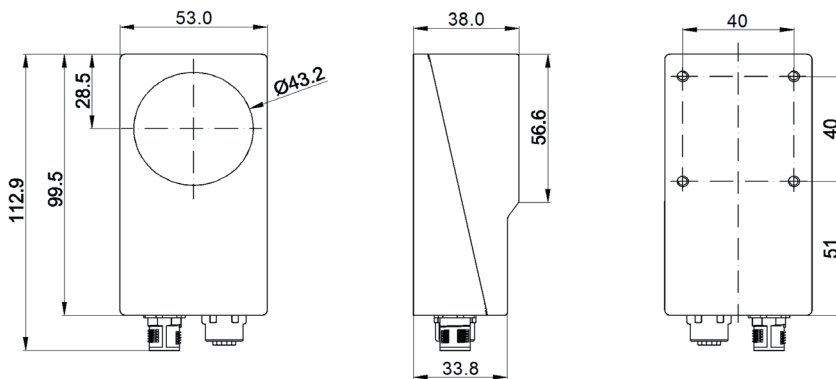
Vibration resistance in acc. with IEC 60068-2-6 / IEC 60068-2-64	Yes
--	-----

## 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!