

## Overview

- Universal Robots+ Certified (UR+) for UR3e, UR5e, UR10e, UR16e
- PROFINET and EtherNet/IP interface integrated
- FEX image processor
- FEXLoc 360° part location
- Flexible result conjunction
- Download VeriSens Application Suite: [www.baumer.com/vs-sw](http://www.baumer.com/vs-sw)



## Technical data

### General data

Resolution	752 × 480 px
Sensor type	1/3" CMOS, monochrome
Illumination	integrated, LED infrared (860 nm)
LED class	free group (risk free, EN 62471:2008)
High-resolution mode	max. 50 inspections per second
High-speed mode (limited resolution)	max. 100 inspections per second
Object distance min.	50 mm
Object distance max.	450 mm
Number of jobs (products)	≤ 255
Features per job	32
Signal processing	Baumer FEX® 4.0
Defect image memory	32
Lens	12 mm

### Electrical data

Nominal voltage power supply	24 V +- 25%
Nominal voltage power supply (add-on)	Class 2 according to NEC / protection class III
Nominal voltage power supply (info)	The device is intended for supply from an isolated limited power source according to UL61010-1, 3rd ed cl. 9.4 or a limited energy source according to UL60950-1 or Class 2 according to NEC.
Power consumption	max. 18 W (with I/O)
Inputs	8 ... 30 V (polarity protected)

### Electrical data

Digital inputs	5 inputs trigger job selection external teach-in encoders (CH-A, CH-B) 500 kHz
Outputs	PNP $I_{peak} = 100 \text{ mA}$ and $I_{eff} = 50 \text{ mA}$ (short-circuit proof)
Digital outputs	5 outputs Pass / Fail Flash Sync Alarm Camera Ready Output Enable
Initial setup	Ethernet (10BASE-T / 100BASE-TX)
Process interface	PROFINET (CC-A) EtherNet/IP™ TCP/UDP (Ethernet) Universal Robot Mode
Visualization	configurable web interface with <i>Mul-tiViewer</i> function

### Mechanical data

Width	53 mm
Height	99.5 mm
Depth	38 mm
Weight	≤ 250 g
Material	housing: aluminum cover glass: PMMA, integrated daylight filter (780 nm)

## Technical data

### Environmental conditions

Operating temperature	+5 ... +60 °C @ T = measurement point
Storage temperature	-20 ... +70 °C
Humidity	0 ... 90 % (non-condensing)
Protection class	IP 67
Vibration load	IEC 60068-2-6 IEC 60068-2-64
Mechanical shock resistance	EN 60068-2-27

### Code types

Barcode	2/5 Industrial 2/5 Interleaved Codabar Code 39 Code 93 Code 128 PharmaCode EAN 8 EAN 13 UPC-A UPC-E GS1 DataBar GS1 128
Matrix code	DataMatrix (ECC 200) GS1-DataMatrix QR-Code PDF417
Font	many font styles (recommended: sans serif, proportional) Dot Matrix characters: A-Z a-z 0-9 + - . : / ( )

### Feature checks

Part location	part location on contours part location on edges part location on circle part location on text line
Geometry	Distance circle angle count edges point position edge characteristics
Feature comparison	count contour points contour comparison brightness contrast area size count areas pattern comparison find object positions
Identification	Barcode Matrix code text

### Conformity

Conformity	CE RoHS EAC UL KC (R-REI-BkRR-VeriSens-IP)
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### Non-volatile memory

Flash memory size	2000 Mbit Flash S34ML02G100BHI0000
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## Electrical connection



1: PWR (+18-30 V DC)	7: OUT3
2: Ground	8: IN3
3: IN1 (Trigger)	9: OUT4
4: OUT1	10: IN4
5: IN2	11: IN5
6: OUT2	12: OUT5



1: TD+	3: TD-
2: RD+	4: RD-

## Dimension drawing

