

## 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
- VeriFlash flash controller integrated
- VeriSens XC Tube included in delivery
- Download VeriSens Application Suite: [www.baumer.com/vs-sw](http://www.baumer.com/vs-sw)



## Technical data

General data		Electrical data	
Resolution	1600 × 1200 px	Digital inputs	5 inputs trigger job selection external teach-in encoders (CH-A, CH-B) 500 kHz
Sensor type	1/1.8" CCD, monochrome	Outputs	PNP $I_{peak} = 100 \text{ mA}$ and $I_{eff} = 50 \text{ mA}$ (short-circuit proof)
Illumination	external, available as accessory	Digital outputs	5 outputs Pass / Fail Flash Sync Alarm Camera Ready Output Enable
Illumination connection	direct (integrated VeriFlash® flash controller)	Initial setup	Ethernet (10BASE-T / 100BASE-TX)
High-resolution mode	max. 21 inspections per second	Process interface	PROFINET (CC-A) EtherNet/IP™ TCP/UDP (Ethernet) Universal Robot Mode
High-speed mode (limited resolution)	max. 35 inspections per second	Visualization	configurable web interface with MultiViewer function
Number of jobs (products)	≤ 255	Mechanical data	
Features per job	32	Width	53 mm (without lens/tube)
Signal processing	Baumer FEX® 4.0	Height	99.5 mm (without lens/tube)
Defect image memory	4	Depth	49.8 mm (without lens/tube)
Lens	C-mount	Weight	≤ 300 g (without lens/tube)
Electrical data		Material	housing: aluminum cover glass XC tube: PMMA
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. 42 W (with I/O and lighting)		
Inputs	8 ... 30 V (polarity protected)		

## Technical data

### Environmental conditions

Operating temperature	+5 ... +55 °C @ T = measurement point
Storage temperature	-20 ... +70 °C
Humidity	0 ... 90 % (non-condensing)
Protection class	IP 67 (with tube)
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
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### Feature checks

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

### Integrated flash controller

Voltage	12 V DC or 24 V DC (permanent) 24 V DC or 48 V DC (pulsed)
Current	$I_{\max} = 800 \text{ mA}$ at 24 V DC (permanent) ( $\pm 10 \%$ , at least $\pm 100 \text{ mA}$ , at 25 °C) $I_{\max} = 4 \text{ A}$ at 48 V DC (pulsed) (+10/-20 % , at least $\pm 100 \text{ mA}$ , at 25 °C)
Flash time	max. 1 ms (Duty Cycle max. 1:10)

### Conformity

Conformity	CE RoHS EAC UL recognized KC (R-R-BkR-VeriSens-XC-IP)
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### Non-volatile memory

Flash memory size	2000 Mbit Flash S34ML02G100BHI0000
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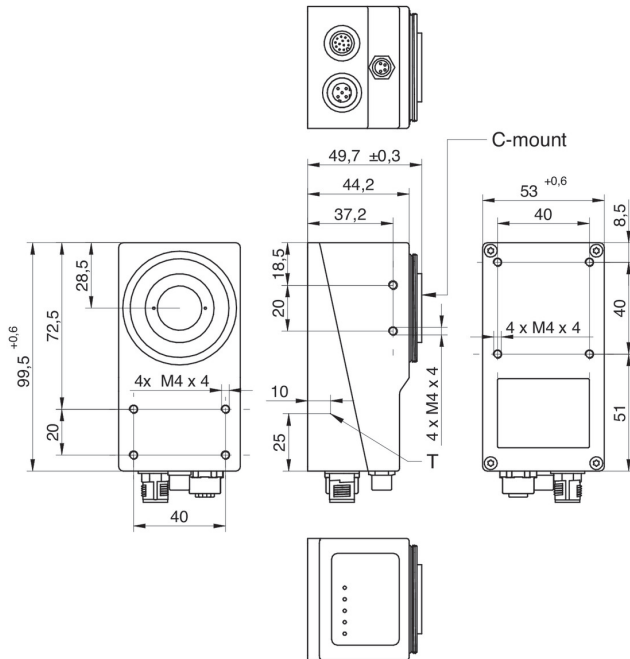
## Electrical connection



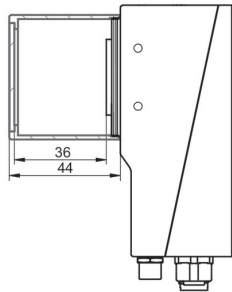
1:	+24 V or +48 V Flash	3:	Ground
2:	+12 V or +24 V Flash	4:	Flash Sync

voltage outputs configurable by software

### Dimension drawing



### C-mount support



### XC Tube, XC Tube Module

