

# B50M011

weQube

Part Number



- **Image processing functions**
- **MultiCore technology**
- **OCR reading**
- **Pattern matching**
- **Reading of printed and directly marked 1D and 2D codes**

The smart camera weQube is based on the wenglor MultiCore technology and combines the function of the scanner and the vision sensors. Therefore, this product allows to capture all established 1D codes and various 2D code types. Region of interest and tracking ensure reliable and stable image recording. The following image processing modules are available: Dimensional accuracy check, sorting procedures, presence control, object counting, position output, pixel counting, optical character recognition, pattern matching, filter options, and statistics evaluation.

## Technical Data

### Optical Data

|                           |                 |
|---------------------------|-----------------|
| Lens thread               | C-Mount         |
| Resolution                | 736 x 480 Pixel |
| Image Chip                | color           |
| Image chip size           | 1/3"            |
| Pixel Size                | 6 x 6 $\mu$ m   |
| Service Life (T = +25 °C) | 100000 h        |
| Frame Rate                | 15 Hz           |

### Electrical Data

|                                    |                 |
|------------------------------------|-----------------|
| Supply Voltage                     | 18...30 V DC    |
| Current Consumption (Ub = 24 V)    | < 200 mA        |
| Response Time                      | 66 ms           |
| Temperature Range                  | -25...55 °C*    |
| Inputs/Outputs                     | 6               |
| Switching Output Voltage Drop      | < 2,5 V         |
| Switching Output/Switching Current | 100 mA          |
| Short Circuit Protection           | yes             |
| Reverse Polarity Protection        | yes             |
| Interface                          | RS-232/Ethernet |
| Protection Class                   | III             |

### Mechanical Data

|                             |                        |
|-----------------------------|------------------------|
| Setting Method              | Ethernet               |
| Housing Material            | Aluminum               |
| Degree of Protection        | IP67                   |
| Connection                  | M12 x 1; 12-pin        |
| Type of Connection Ethernet | M12 x 1; 8-pin, X-cod. |

### Safety-relevant Data

|                        |          |
|------------------------|----------|
| MTTFd (EN ISO 13849-1) | 263,03 a |
|------------------------|----------|

### Function

|                            |     |
|----------------------------|-----|
| Presence Check             | yes |
| Pixel Comparison           | yes |
| Reference Image Comparison | yes |
| Tracking                   | yes |
| OCR                        | yes |
| Object detection           | yes |
| Dimensional accuracy check | yes |
| 1D and 2D code reading     | yes |
| Pattern matching           | yes |
| Web server                 | yes |

|                                   |   |
|-----------------------------------|---|
| Configurable as PNP/NPN/Push-Pull |   |
| Switchable to NC/NO               | ● |
| Illumination Output               | ● |
| RS-232 Interface                  | ● |
| Ethernet                          | ● |

|                        |            |
|------------------------|------------|
| Connection Diagram No. | 002   1008 |
|------------------------|------------|

|                   |    |
|-------------------|----|
| Control Panel No. | X2 |
|-------------------|----|

|                                   |         |
|-----------------------------------|---------|
| Suitable Connection Equipment No. | 50   87 |
|-----------------------------------|---------|

|                                  |     |
|----------------------------------|-----|
| Suitable Mounting Technology No. | 560 |
|----------------------------------|-----|

Display brightness may decrease with age. This does not result in any impairment of the sensor function.

\* -25 °C: Ambient conditions should not result in condensation; avoid the formation of ice on the front panel!

55 °C: Continuous illumination at max. 1% or flash mode at 100% brightness with an exposure time of ≤ 5 ms; may affect the service life of the product.

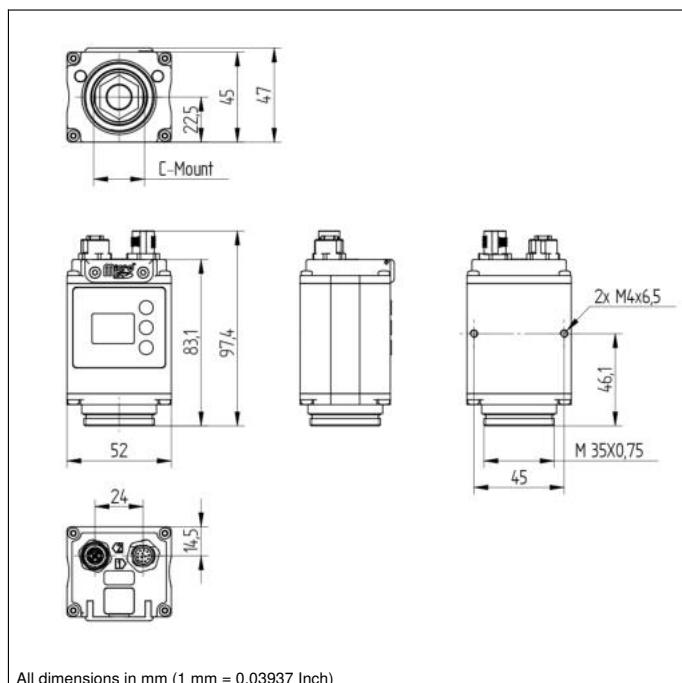
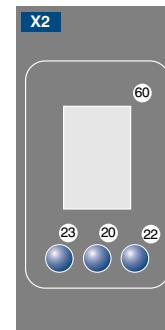
## Complementary Products

Illumination Technology

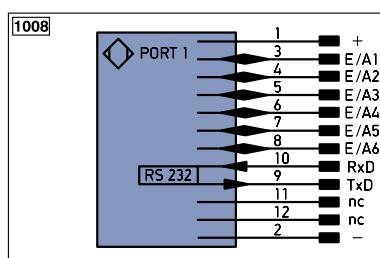
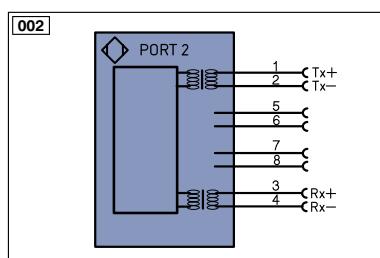
Lens

Protective Housing ZSZ-0x-01

Software


**Ctrl. Panel**


20 = Enter Button  
22 = UP Button  
23 = Down Button  
60 = Display


**Legend**

|       |                                |
|-------|--------------------------------|
| PT    | Platinum measuring resistor    |
| nc    | not connected                  |
| U     | Test Input                     |
| Ü     | Test Input inverted            |
| W     | Trigger Input                  |
| W-    | Ground for the Trigger Input   |
| O     | Analog Output                  |
| O-    | Ground for the Analog Output   |
| BZ    | Block Discharge                |
| Awv   | Valve Output                   |
| a     | Valve Control Output +         |
| b     | Valve Control Output 0 V       |
| SY    | Synchronization                |
| SY-   | Ground for the Synchronization |
| E+    | Receiver-Line                  |
| S+    | Emitter-Line                   |
| ±     | Grounding                      |
| SnR   | Switching Distance Reduction   |
| Rx+/- | Ethernet Receive Path          |
| Tx+/- | Ethernet Send Path             |
| Bus   | Interfaces-Bus A(+)/B(-)       |
| La    | Emitted Light disengageable    |
| Mag   | Magnet activation              |
| RES   | Input confirmation             |
| EDM   | Contactor Monitoring           |

|                                    |                     |
|------------------------------------|---------------------|
| EN <sub>ARS422</sub>               | Encoder A/Ä (TTL)   |
| EN <sub>BRS422</sub>               | Encoder B/ß (TTL)   |
| ENA                                | Encoder A           |
| ENB                                | Encoder B           |
| AMIN                               | Digital output MIN  |
| AMAX                               | Digital output MAX  |
| AOK                                | Digital output OK   |
| SY IN                              | Synchronization IN  |
| SY OUT                             | Synchronization OUT |
| OLT                                | Brightness output   |
| M                                  | Maintenance         |
| rsv                                | reserved            |
| Wire Colors according to IEC 60757 |                     |
| BK                                 | Black               |
| BN                                 | Brown               |
| RD                                 | Red                 |
| OG                                 | Orange              |
| YE                                 | Yellow              |
| GN                                 | Green               |
| BU                                 | Blue                |
| VT                                 | Violet              |
| GY                                 | Grey                |
| WH                                 | White               |
| PK                                 | Pink                |
| GNYE                               | Green/Yellow        |

