

Vision Sensor

B50S014

Part Number

weQubeVision



- Image processing functions
- MultiCore technology
- Pattern matching

The weQube vision sensor is based on wenglor's MultiCore technology. The region of interest and tracking functions ensure optimal object sensing. The following image processing modules are available: dimensional accuracy check, sorting process, presence check, object counting, position read-out, pixel counting, pattern matching, filter options and statistics analysis.

Technical Data

| Optical Data | |
|---------------------------|-----------------|
| Lens thread | C-Mount |
| Resolution | 736 × 480 Pixel |
| Image Chip | monochrome |
| Image chip size | 1/3" |
| Pixel Size | 6 × 6 μm |
| Service Life (T = +25 °C) | 100000 h |
| Frame Rate | 25 Hz |

| Electrical Data | |
|---|-----------------|
| Supply Voltage | 18...30 V DC |
| Current Consumption (U _b = 24 V) | < 200 mA |
| Response Time | 40 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 × 1; 12-pin |
| Type of Connection Ethernet | M12 × 1; 8-pin, X-cod. |

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

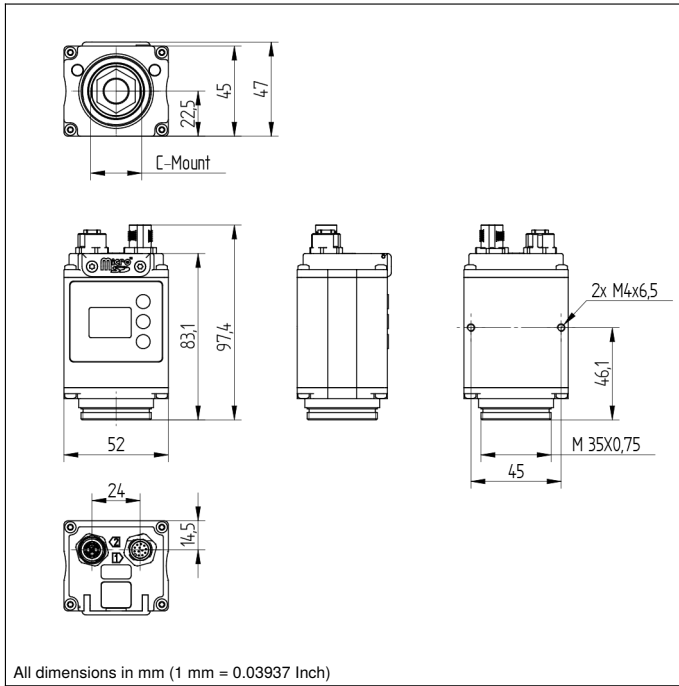
| Function | |
|----------------------------|-----|
| Presence Check | yes |
| Pixel Comparison | yes |
| Reference Image Comparison | yes |
| Tracking | yes |
| Object detection | yes |
| Dimensional accuracy check | yes |
| Pattern matching | yes |
| Web server | yes |

| | |
|-----------------------------------|------------|
| PNP 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

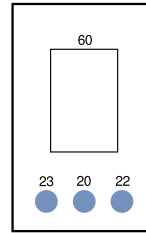
| |
|--------------------------------------|
| Illumination Technology |
| Lens |
| Protective Housing ZSZ-0x-01 |
| Software |
| weQubeDecode License Upgrade DNNL002 |
| weQubeOCR License Upgrade DNNL003 |
| ZDCG004 connection cable |



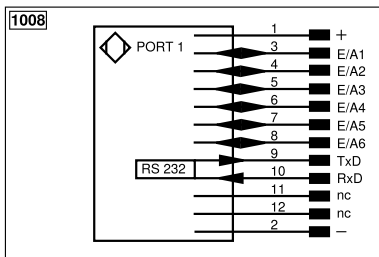
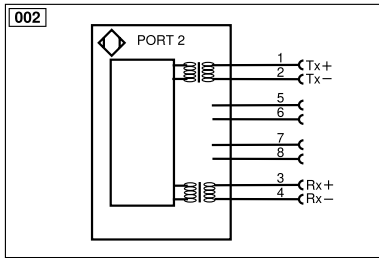
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

X2



- 20 = Enter key
- 22 = Up key
- 23 = Down key
- 60 = display



| Legend | | | |
|-----------|--|----------|--|
| + | Supply Voltage + | nc | Not connected |
| - | Supply Voltage 0 V | U | Test Input |
| ~ | Supply Voltage (AC Voltage) | Ü | Test Input inverted |
| A | Switching Output (NO) | W | Trigger Input |
| Ā | Switching Output (NC) | W- | Ground for the Trigger Input |
| V | Contamination/Error Output (NO) | O | Analog Output |
| ȳ | Contamination/Error Output (NC) | O- | Ground for the Analog Output |
| E | Input (analog or digital) | BZ | Block Discharge |
| T | Teach Input | Amv | Valve Output |
| Z | Time Delay (activation) | a | Valve Control Output + |
| S | Shielding | b | Valve Control Output 0 V |
| RxD | Interface Receive Path | SY | Synchronization |
| TxD | Interface Send Path | SY- | Ground for the Synchronization |
| RDY | Ready | E+ | Receiver-Line |
| GND | Ground | S+ | Emitter-Line |
| CL | Clock | ± | Grounding |
| E/A | Output/Input programmable | SnR | Switching Distance Reduction |
| IO-Link | | Rx+/- | Ethernet Receive Path |
| PoE | Power over Ethernet | Tx+/- | Ethernet Send Path |
| IN | Safety Input | Bus | Interfaces-Bus A(+)/B(-) |
| OSSD | Safety Output | La | Emitted Light disengageable |
| Signal | Signal Output | Mag | Magnet activation |
| BI_D+/- | Ethernet Gigabit bidirect. data line (A-D) | RES | Input confirmation |
| ENo RS422 | Encoder 0-pulse 0/0 (TTL) | EDM | Contactor Monitoring |
| PT | Platinum measuring resistor | ENARs422 | Encoder A/Ā (TTL) |
| | | | Wire Colors according to DIN 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 |

