Smart Camera

B50M110
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.
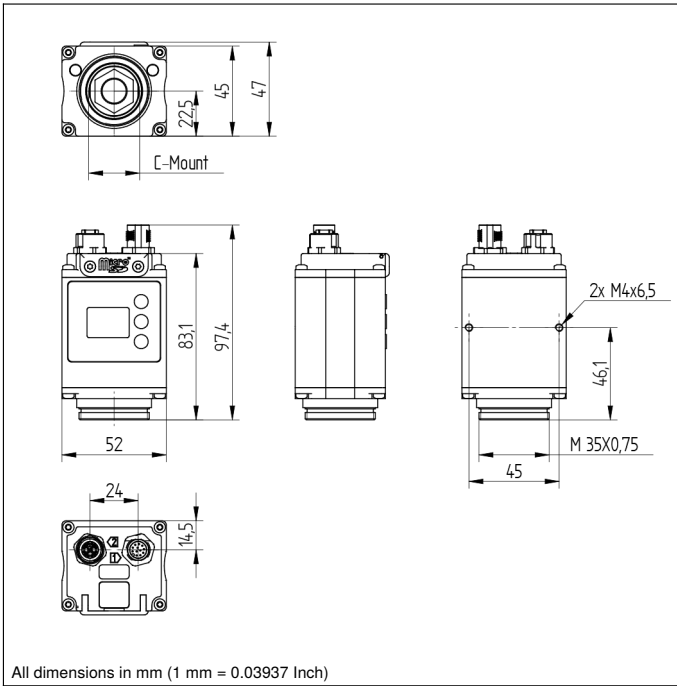
Technical Data

Optical Data	
Lens thread	C-Mount
Resolution	736 × 480 Pixel
Image Chip	color
Image chip size	1/3"
Pixel Size	6 × 6 μm
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 × 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
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	●
PROFINET	●
EtherNet/IP™	●

Connection Diagram No.	002	1008
Control Panel No.		X2
Suitable Connection Technology 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.
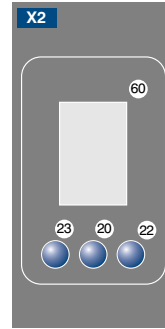
Complementary Products

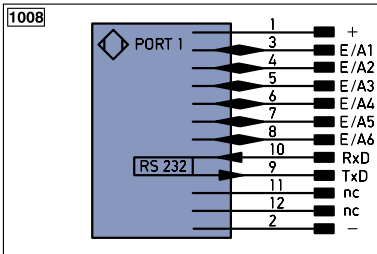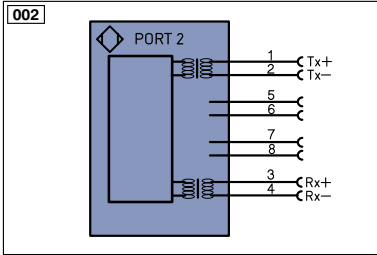| Illumination Technology |
|---|
| Lens LAC25-14-K02 |
| Software |

![wenglor - the innovative family]

All dimensions in mm (1 mm = 0.03937 Inch)

Dimensional drawings:
- C-Mount
- 22.5, 45, 47
- 83.1, 97.4
- 52
- 2x M4x6.5
- 46.1
- M 35X0.75
- 45
- 24
- 14.5

Ctrl. Panel

X2

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

002

PORT 2
- 1 — Tx+
- 2 — Tx−
- 5
- 6
- 7
- 8
- 3 — Rx+
- 4 — Rx−

1008

PORT 1
- 1 — +
- 3 — E/A1
- 4 — E/A2
- 5 — E/A3
- 6 — E/A4
- 7 — E/A5
- 8 — E/A6
- 10 — RxD
- 9 — TxD (RS 232)
- 11 — nc
- 12 — nc
- 2 — −

Legend

+	Supply Voltage +
−	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
⊘	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI_D+/−	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
O	Analog Output
O−	Ground for the Analog Output
BZ	Block Discharge
AMW	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	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
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (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

Wire Colors according to DIN IEC 757

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

EAC | CE | RoHS | UL LISTED