

Vision Sensor

B50S111

Part Number

weQubeVision



- Image processing functions
- MultiCore technology

The vision sensor weQubeVision is based on the wenglor MultiCore technology. The functions region of interest and tracking ensure optimal object detection. The following image processing modules are available: Dimensional accuracy check, sorting procedures, presence control, object counting, position output, pixel counting, filter options, and statistics evaluation.

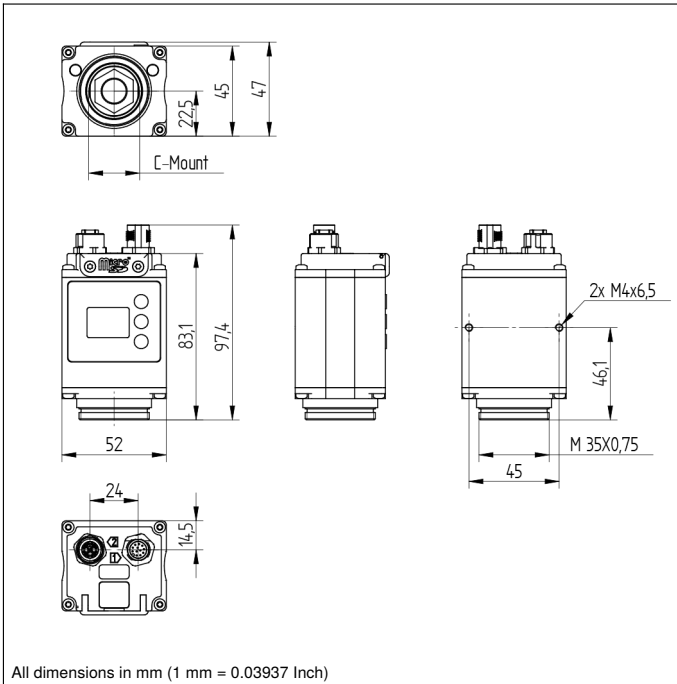
Technical Data

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
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 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.

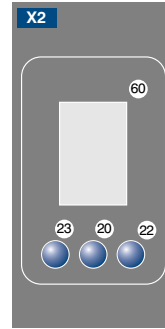
Complementary Products

Illumination Technology	
Lens	
License Upgrade, weQube Pattern Matching DNNL006	
Protective Housing ZSZ-0x-01	
Software	
weQubeDecode License Upgrade DNNL002	
weQubeOCR License Upgrade DNNL003	

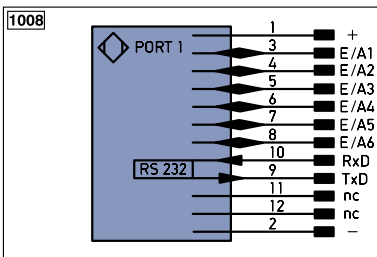
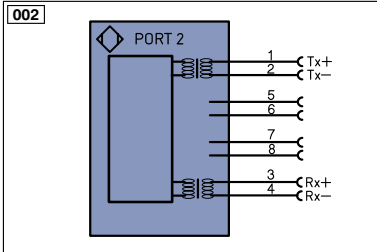


All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



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



Legend

+ Supply Voltage +	PT Platinum measuring resistor	EN^ARS422 Encoder A/ \bar{A} (TTL)
- Supply Voltage 0 V	nc not connected	EN^BRS422 Encoder B/ \bar{B} (TTL)
~ Supply Voltage (AC Voltage)	U Test Input	EN^A Encoder A
A Switching Output (NO)	\bar{U} Test Input inverted	EN^B Encoder B
\bar{A} Switching Output (NC)	W Trigger Input	A_{MIN} Digital output MIN
V Contamination/Error Output (NO)	W- Ground for the Trigger Input	A_{MAX} Digital output MAX
\bar{V} Contamination/Error Output (NC)	O Analog Output	A_{OK} Digital output OK
E Input (analog or digital)	O- Ground for the Analog Output	SY_{in} Synchronization In
T Teach Input	BZ Block Discharge	SY_{OUT} Synchronization OUT
Z Time Delay (activation)	A_{WV} Valve Output	OL_T Brightness output
S Shielding	a Valve Control Output +	M Maintenance
RxD Interface Receive Path	b Valve Control Output 0 V	rsv reserved
TxD Interface Send Path	SY Synchronization	Wire Colors according to DIN IEC 757
RDY Ready	SY- Ground for the Synchronization	BK Black
GND Ground	E+ Receiver-Line	BN Brown
CL Clock	S+ Emitter-Line	RD Red
E/A Output/Input programmable	\pm Grounding	OG Orange
IO-Link	S_{nR} Switching Distance Reduction	YE Yellow
PoE Power over Ethernet	Rx+/- Ethernet Receive Path	GN Green
IN Safety Input	Tx+/- Ethernet Send Path	BU Blue
OSSD Safety Output	Bus Interfaces-Bus A(+)/B(-)	VT Violet
Signal Signal Output	L_a Emitted Light disengageable	GY Grey
Bl_D+/- Ethernet Gigabit bidirect. data line (A-D)	Mag Magnet activation	WH White
EN⁰RS422 Encoder 0-pulse 0-0 (TTL)	RES Input confirmation	PK Pink
	EDM Contactor Monitoring	GNYE Green/Yellow

