

# Vision Sensor

## B50S112

Part Number



- Image processing functions
- MultiCore technology
- Pattern matching

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, pattern matching, filter options, and statistics evaluation. Thanks to the integrated color image chip, all image processing functions are also available for remote applications.

weQubeVision

### 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
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#### 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

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

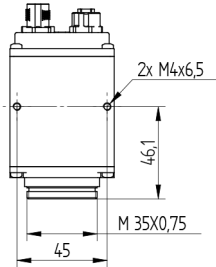
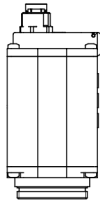
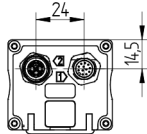
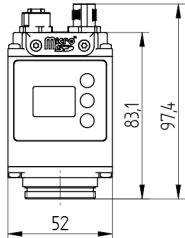
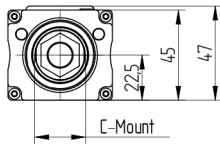
Display brightness may decrease with age. This does not result in any impairment of the sensor function.

\* -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.

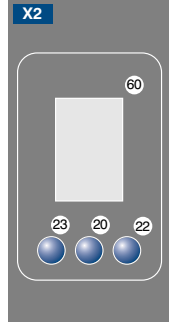
### Complementary Products

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



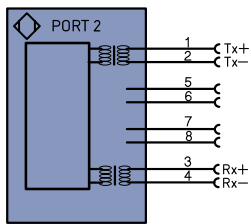
All dimensions in mm (1 mm = 0.03937 Inch)

## Ctrl. Panel

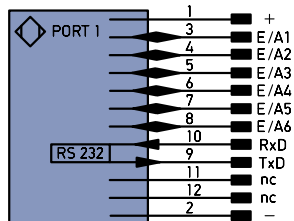


20 = Enter Button  
22 = UP Button  
23 = Down Button  
60 = Display

002



1008



## Legend

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	U	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
Ṽ	Contamination/Error Output (NC)	O	Analog Output
E	Input (analog or digital)	O-	Ground for the Analog Output
T	Teach Input	BZ	Block Discharge
Z	Time Delay (activation)	Awv	Valve Output
S	Shielding	a	Valve Control Output +
RxD	Interface Receive Path	b	Valve Control Output 0 V
TxD	Interface Send Path	SY	Synchronization
RDY	Ready	SY-	Ground for the Synchronization
GND	Ground	E+	Receiver-Line
CL	Clock	S+	Emitter-Line
E/A	Output/Input programmable	±	Grounding
IO-Link	IO-Link	SnR	Switching Distance Reduction
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path
IN	Safety Input	Tx+/-	Ethernet Send Path
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)
Signal	Signal Output	La	Emitted Light disengageable
BL-D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation
EN0 r5422	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation
		EDM	Contactur Monitoring

ENAR5422	Encoder A/Ā (TTL)
ENB5422	Encoder B/B̄ (TTL)
ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOck	Digital output OK
SY in	Synchronization In
SY OUT	Synchronization OUT
OLt	Brightness output
M	Maintenance
rsv	reserved
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