Vision Sensor

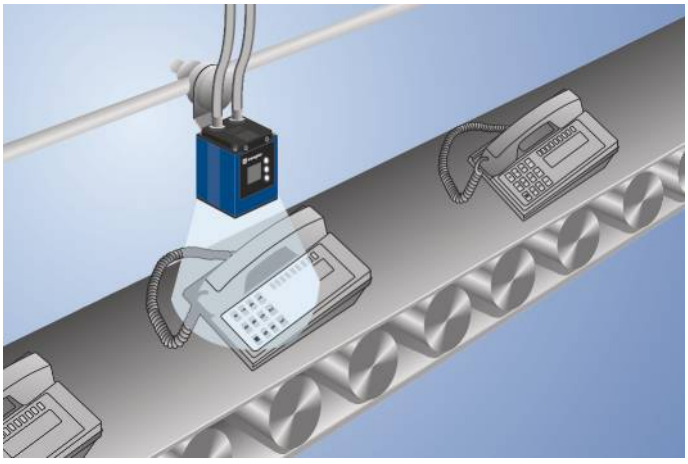
B50S001

Part Number

weQubeVision

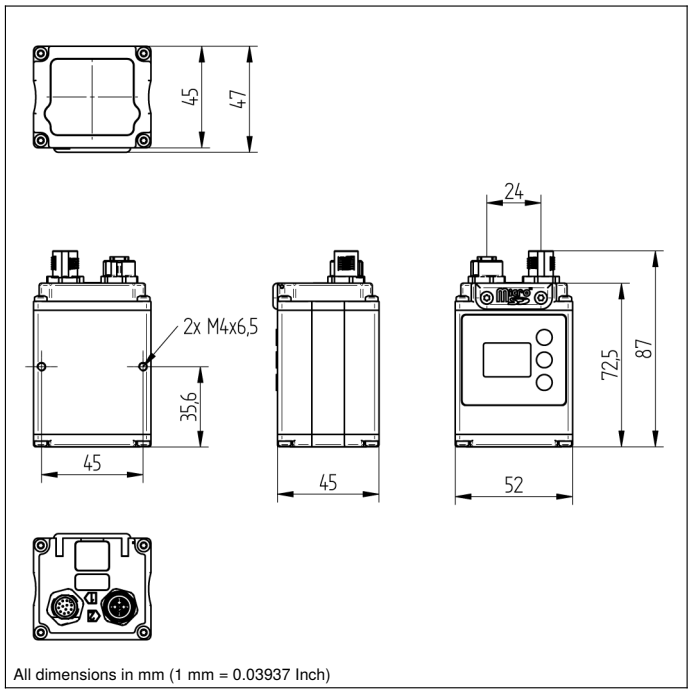
- **Image processing functions**
- **MultiCore technology**

The vision sensor weQubeVision is based on the wenglor MultiCore technology. The functions autofocus, 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. By selecting the color image chip reliable recording of different colors is ensured.

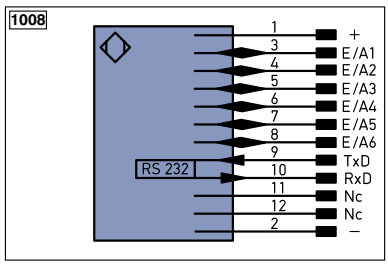


Technical Data

Optical Data	
Working Range	≥ 20 mm
Resolution	736 × 480 Pixel
Image Chip	color
Light Source	White Light
Service Life (T = +25 °C)	100000 h
Field of vision	see Table 1
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	0...40 °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	
Adjustment	Ethernet
Housing Material	Aluminum
Degree of Protection	IP67
Connection	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1; 8-pin
Function	
Presence Check	yes
Pixel Comparison	yes
Reference Image Comparison	yes
Tracking	yes
Object detection	yes
Dimensional accuracy check	yes
Web page	yes
Configurable as PNP/NPN/Push-Pull	●
NO/NC switchable	●
Illumination Output	●
Ethernet	●
Connection Diagram No.	1008
Control Panel No.	X2
Suitable Connection Technology No.	87
Suitable Mounting Technology No.	560



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +	nc	not connected
–	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	O	Analog Output
V	Contamination/Error Output (NO)	O–	Ground for the Analog Output
V̄	Contamination/Error Output (NC)	BZ	Block Discharge
E	Input (analog or digital)	AMV	Valve Output
T	Teach Input	a	Valve Control Output +
Z	Time Delay (activation)	b	Valve Control Output 0 V
S	Shielding	SY	Synchronization
RxD	Interface Receive Path	E+	Receiver-Line
TxD	Interface Send Path	S+	Emitter-Line
RDY	Ready	⏚	Grounding
GND	Ground	SnR	Switching Distance Reduction
CL	Clock	Rx+/–	Ethernet Receive Path
E/A	Output/Input programmable	Tx+/–	Ethernet Send Path
	IO-Link	Bus	Interfaces-Bus A(+)/B(–)
PoE	Power over Ethernet	La	Emitted Light disengageable
IN	Safety Input	Mag	Magnet activation
OSSD	Safety Output	RES	Input confirmation
Signal	Signal Output	EDM	Contactor Monitoring

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

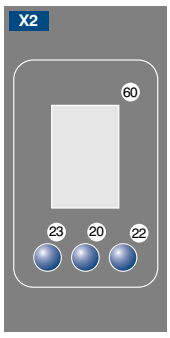
Complementary Products

- Disk with Polarizing Filter ZNNG004
- Floodlight ZFFx09-0x
- Ring Illuminator ZFRx11-0x
- Spot Light ZFSx08-0x
- Spot Light ZFSx10-0x

Table 1

Working Distance	20 mm	200 mm	1000 mm
Field of vision	16 × 12 mm	120 × 90 mm	600 × 450 mm

Ctrl. Panel



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

Specifications are subject to change without notice