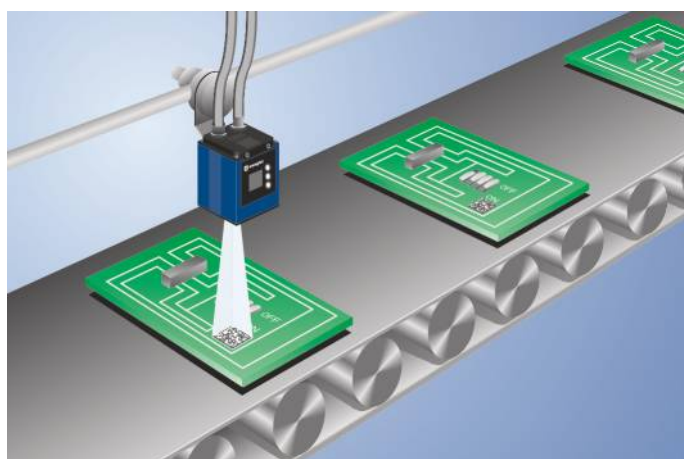# 1D/2D Code Scanner

C50C102
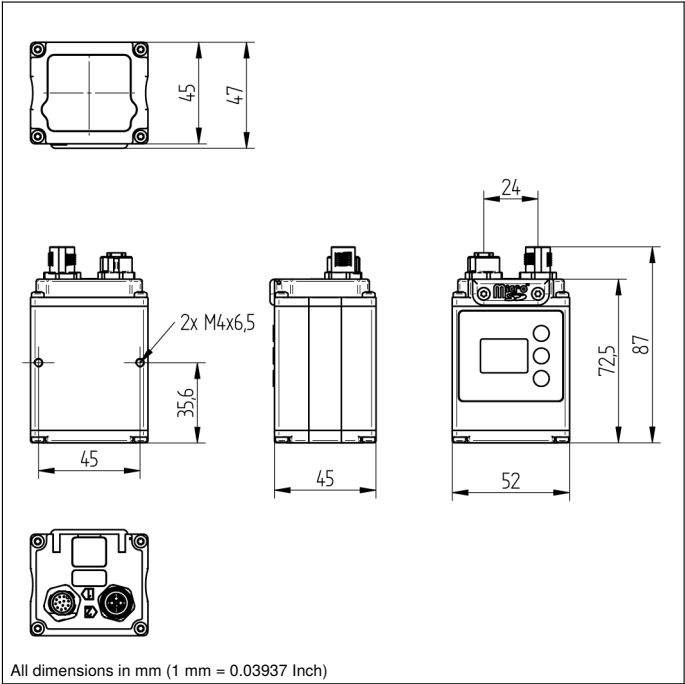Part Number

weQubeDecode

- **MultiCore technology**
- **Reading of printed and directly marked 1D and 2D codes**

The scanner weQubeDecode is based on the wenglor MultiCore technology. Omnidirectional scanning enables decoding of printed, needle-punched, laser-engraved or etched codes on various materials in any orientation. Good scanning results are even obtained with poor code quality. In addition to the established 1D codes it is also suitable for scanning various 2D codes. A list of readable code types is found in the operating instructions.

Technical Data

Optical Data	
Working Range	≥ 20 mm
Resolution	736 × 480 Pixel
Resolution	0,35 MP
Image Chip	monochrome
Image chip size	1/3"
Pixel Size	$6 \times 6\ \mu m$
Light Source	Red Light
Optics	Auto-focus
Visual Field	see Table 1
min. Resolution	0,1 mm
Barcode Printing Contrast	> 15 %
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (Ub = 24 V)	< 200 mA
Scan Rate	20 scans/sec
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.
Optic Cover	Plastic, PMMA
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	227,7 a
Function	
1D and 2D code reading	yes
Web server	yes
License package	weQubeDecode
PNP NO	●
Illumination Output	●
RS-232 Interface	●
Ethernet	●
PROFINET I/O, CC-A	●
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!
Continuous illumination at max. 15 % or flash mode at 100% brightness with an exposure time of <= 5 ms may affect the service life of the product.

Complementary Products

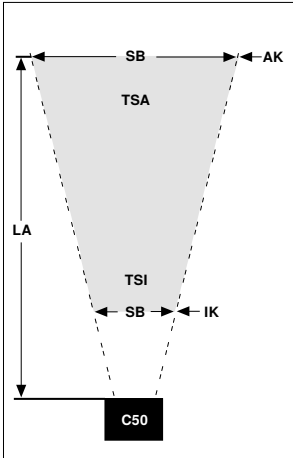|	
Disk with Polarization Filter ZNNG004	
Illumination Technology	
Protective Housing ZNNS001, ZNNS002	
Software	
weQubeOCR License Upgrade DNNL003	
weQubeVision License Upgrade DNNL001	
ZC4G002 connection cable	
ZC4G003 connection cable	
ZDCG004 connection cable	

All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

X2
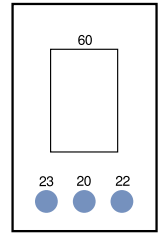
20 = Enter key
22 = Up key
23 = Down key
60 = display

AK = Outer Edge   IK = Inner Edge   LA = Read Range   SB = Scan Width   TSA = Depth of Focus Outer Edge   TSI = Depth of Focus Inner Edge

Min. Resolution		Max. Visual Field		Depth of Focus		Read Range
1D	2D	IK	AK	TSI	TSA	
0.1 mm	–	22 × 14 mm	29 × 19 mm	1 mm	2 mm	20 mm to 30 mm
0.13 mm	–	22 × 14 mm	54 × 36 mm	4 mm	8 mm	20 mm to 65 mm
0.19 mm	–	22 × 14 mm	85 × 55 mm	6 mm	12 mm	20 mm to 115 mm
0.38 mm	–	40 × 26 mm	177 × 115 mm	18 mm	60 mm	47 mm to 251 mm
0.76 mm	–	78 × 51 mm	361 × 235 mm	80 mm	250 mm	105 mm to 500 mm
–	0.15 mm	22 × 14 mm	29 × 19 mm	1 mm	2 mm	20 mm to 30 mm
–	0.27 mm	22 × 14 mm	66 × 43 mm	7 mm	16 mm	20 mm to 85 mm
–	0.49 mm	22 × 14 mm	131 × 85 mm	12 mm	58 mm	20 mm to 180 mm
–	1.25 mm	24 × 15 mm	358 × 233 mm	35 mm	385 mm	27 mm to 500 mm

Table 1

Working Distance	20 mm	100 mm	200 mm
Visual Field	9 × 6 mm	65 × 42 mm	134 × 87 mm

IND. CONT. EQ
72HL / E169727
For use in class 2 circuits