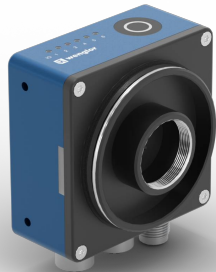


Smart Camera

uniVision Extended

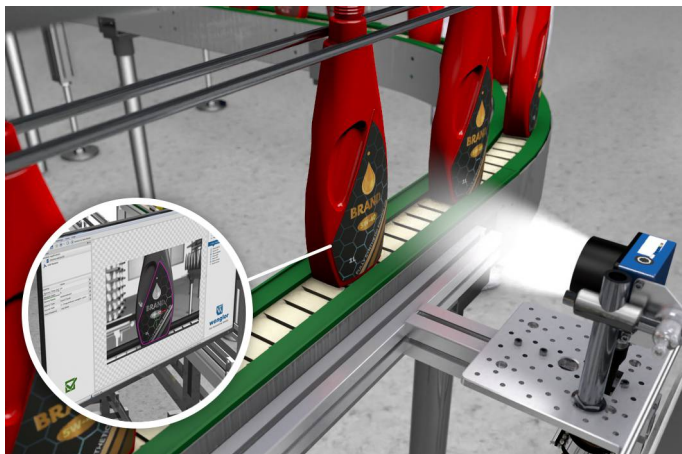
B60E203

Part Number



- Computing power of vision system in sensor format
- Condition monitoring (including position monitoring via position sensor)
- Expandable, modular hardware design
- State-of-the-art communication interfaces incl. PoE functionality
- User-friendly vision tools

The Smart Camera B60 offers the functionality and performance of a full-fledged image processing system and is therefore suitable for even complex image processing applications. Image recording and evaluation by the high-performance, easy-to-use uniVision image processing software are combined in a compact and robust modular housing. Additional software modules can be added at any time using upgrade licenses.



Technical Data

Optical Data	
Lens thread	C-Mount
Resolution	2448 × 2048 Pixel
Resolution	5 MP
Image Chip	monochrome
Image chip size	1/1,8"
Pixel Size	2,74 × 2,74 μm
Light Source	External lighting
Optics	C mount
Frame rate (fullframe)	≤ 67 fps

Environmental conditions	
Temperature Range	0...40 °C
Storage temperature	0...70 °C
Atmospheric humidity	5...95%, non-condensing
Shock resistance per DIN IEC 68-2-27	30 g / 11 ms
Vibration resistance per DIN EN 60068-2-64	6 g (10...55 Hz)

Electrical Data	
Supply Voltage	24 V DC
Current Consumption (U _b = 24 V)	600 mA
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	Ethernet
Baud Rate Ethernet	1 Gbit/s
Baud Rate PROFINET	100 Mbit/s
Industry protocols	EtherCAT
Industry protocols	EtherNet/IP™
Industry protocols	PROFINET Class B
General protocols	FTP
General protocols	sFTP
General protocols	TCP/IP
General protocols	UDP
Protection Class	III
RAM	4 GB
Storage Capacity	32 GB
PoE Class	4

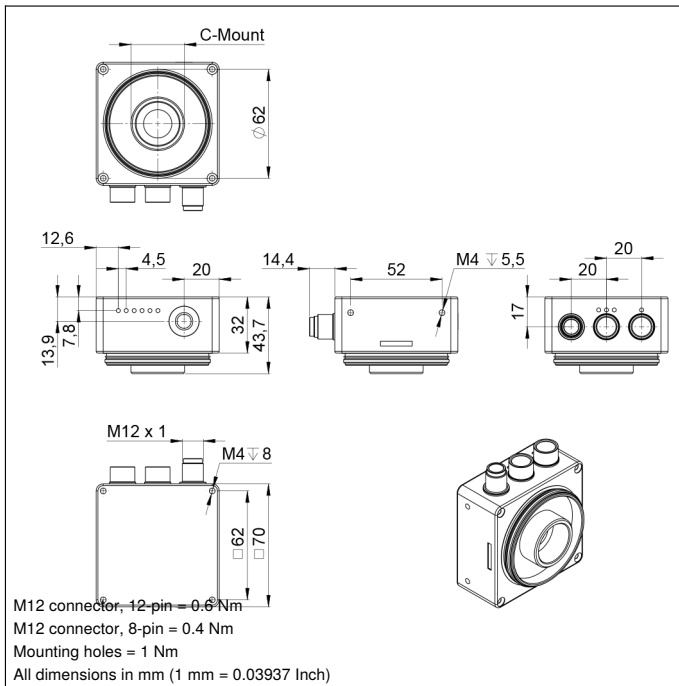
Mechanical Data	
Setting Method	Web server
Housing Material	Aluminum, anodised
Optic Cover	Glass
Degree of Protection	IP67
UL Enclosure Type	1
Connection	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1, 8-pin, X-coded (2×)

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	174,12 a
Software	uniVision 3
License package	uniVision Extended

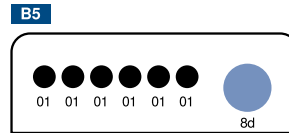
PNP NO

Current peaks of up to 800 mA may occur during start-up

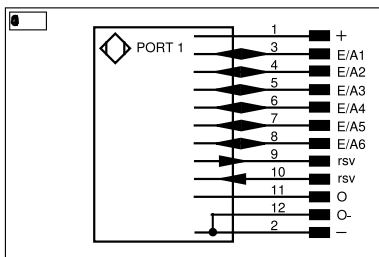
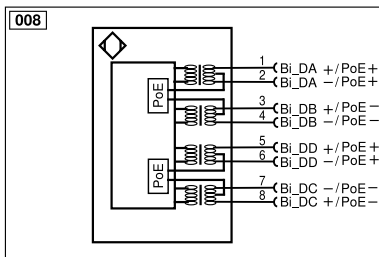
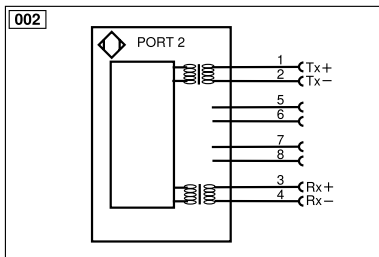
From revision E: 4 GB RAM and 32 GB memory; PoE Class 4



Ctrl. Panel



O1 = Switching Status Indicator
 8d = button



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ä (TTL)
-	Supply Voltage 0 V	nc	Not connected	ENBR5422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENA	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	ENB	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	Aok	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
R	Reset input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	⊕	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
QSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contacting Monitoring	GNYE	Green/Yellow

Visual Field

1 \ 2	100 mm	200 mm	400 mm	600 mm
ZVZG100	78x58 mm	161x120 mm	326x245 mm	492x369 mm
ZVZG101	57x43 mm	119x89 mm	243x183 mm	368x276 mm
ZVZG102	36x27 mm	78x58 mm	161x120 mm	243x183 mm
ZVZG103	26x20 mm	57x43 mm	119x89 mm	181x136 mm
ZVZG104	15x11 mm	35x26 mm	75x56 mm	114x86 mm
ZVZG105	9x7 mm	23x18 mm	52x39 mm	80x60 mm
ZVZG106	-	14x11 mm	35x26 mm	55x41 mm

1 = working distance

2 = lens

