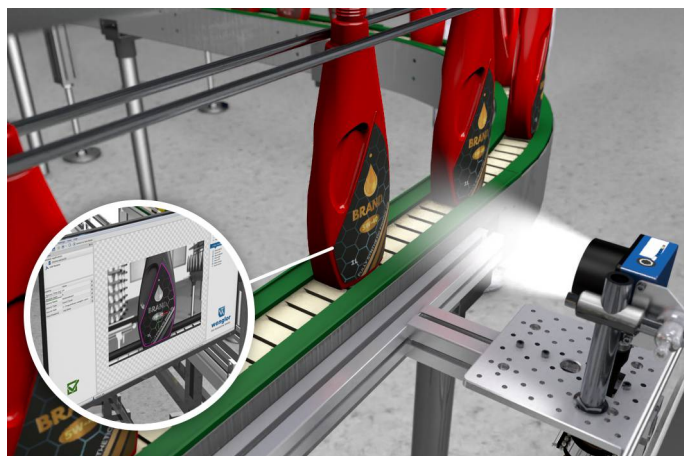


- **Computing power of vision system in sensor format**
- **Condition monitoring (including position monitoring via position sensor)**
- **Expandable, modular hardware design**
- **State-of-the-art communication interfaces incl. PoE functionality**
- **User-friendly vision tools paired with individual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

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. Thanks to the uniVision Script license package, users can switch flexibly between parametrization and programming solutions. Seamless integration of HALCON scripts enables secure and flexible data exchange.



Technical Data

Optical Data

Lens thread	C-Mount
Resolution	1440 × 1080 Pixel
Resolution	1,6 MP
Image Chip	color
Image chip size	1/2,9"
Pixel Size	3,45 × 3,45 µm
Light Source	External lighting
Optics	C mount
Frame rate (fullframe)	≤ 60 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 (2x)

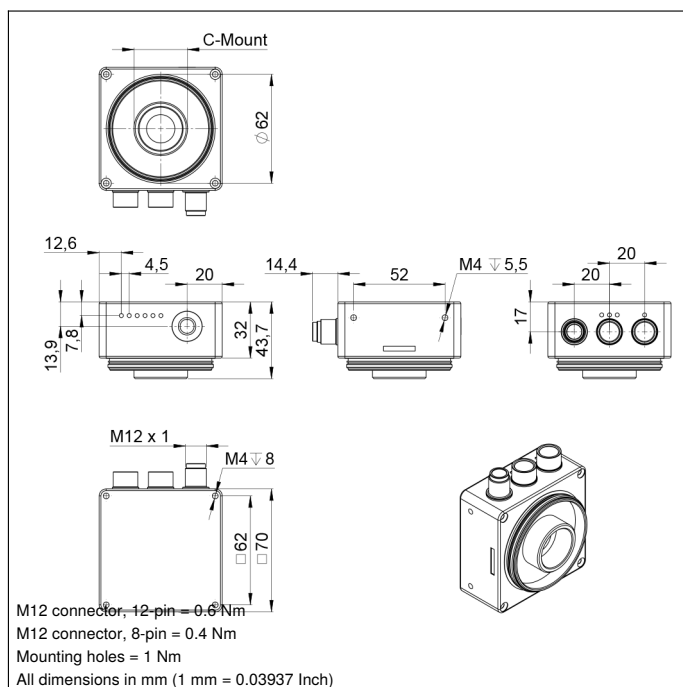
Safety-relevant Data

MTTFd (EN ISO 13849-1)	174,12 a
Software	uniVision 3
License package	uniVision Script

PNP NO

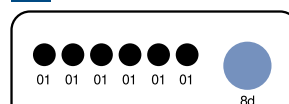
Current peaks of up to 800 mA may occur during start-up

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

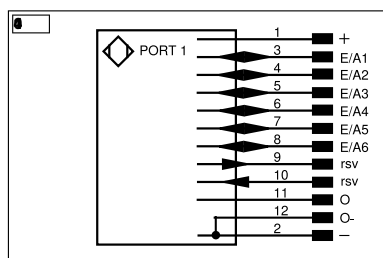
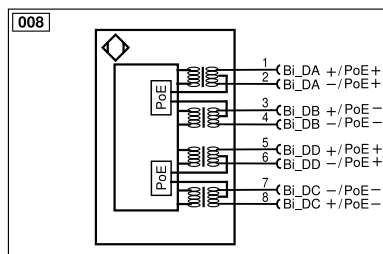
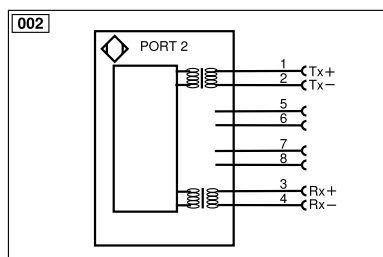


Ctrl. Panel

B5



01 = Switching Status Indicator
8d = button



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-bar	Test Input inverted
A-bar	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
V-bar	Contamination/Error Output (NC)	O	Analog Output
E	Input (analog or digital)	O-	Ground for the Analog Output
T	Teach Input	BZ	Block Discharge
R	Reset input	Auv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	≡	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
QSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contact Monitoring
ENARs422	Encoder A/A (TTL)		
ENBRs422	Encoder B/B (TTL)		
ENa	Encoder A		
ENb	Encoder B		
AMIN	Digital output MIN		
AMAX	Digital output MAX		
Ack	Digital output OK		
SY In	Synchronization In		
SY OUT	Synchronization OUT		
OLt	Brightness output		
M	Maintenance		
rsv	Reserved		
Wire Colors according to DIN IEC 60757			
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		

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

