

Smart Camera

B60M213

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	color
Image chip size	1/1,8"
Pixel Size	2,74 × 2,74 µm
Light Source	External lighting
Optics	C mount
Frame Rate	≤ 40 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)	< 500 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	PROFINET Class B
General protocols	FTP
General protocols	sFTP
General protocols	TCP/IP
General protocols	UDP
Protection Class	III
RAM	2 GB
Storage Capacity	16 GB

Mechanical Data

Housing Material	Aluminum, anodised
Optic Cover	Glass
Degree of Protection	IP67
Connection	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1, 8-pin, X-coded (2x)
Web server	yes
License package	uniVision

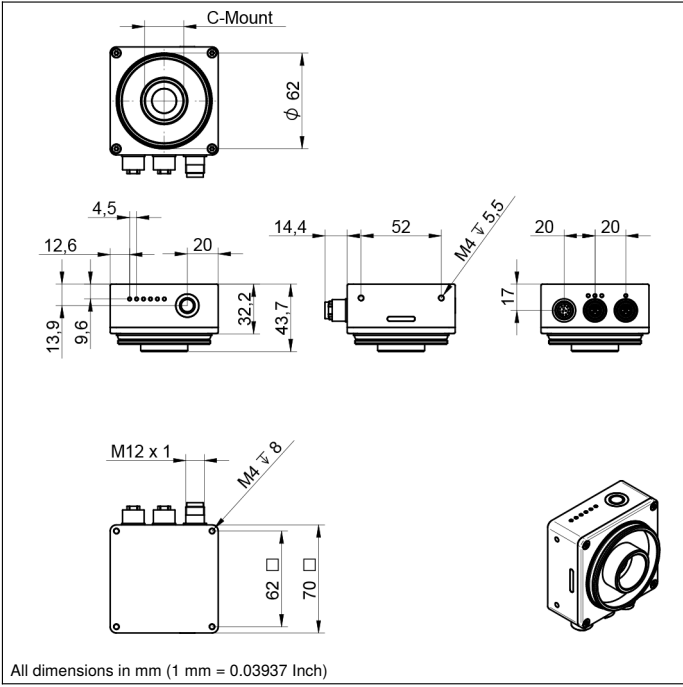
PNP NO

Control Panel No.

B5

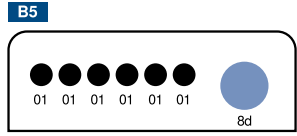
Complementary Products

C mount filter
C mount lens
Connection cables
Heat sink
License B60 uniVision Extended
License B60 uniVision Robot Vision
License B60 uniVision Script
Protective tube Z60S
ZVZJ calibration plate

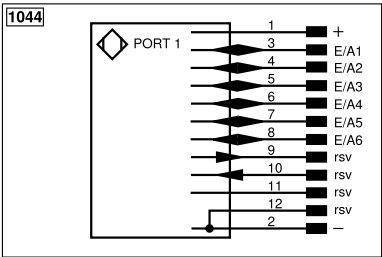
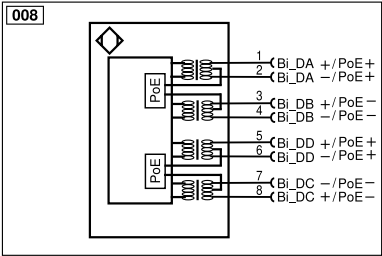
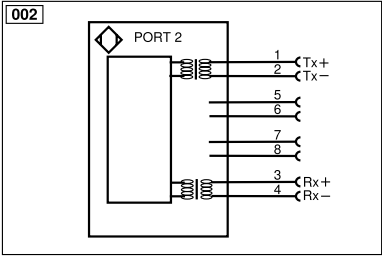


All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



01 = Switching Status Indicator
8d = button



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ů	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	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		Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	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/Ů (TTL)	EDM	Contact Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ā (TTL)
		ENBrs422	Encoder B/B̄ (TTL)
		ENA	Encoder A
		ENB	Encoder B
		AMIN	Digital output MIN
		AMAX	Digital output MAX
		AOK	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	100 mm	200 mm	400 mm	600 mm
2					
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

