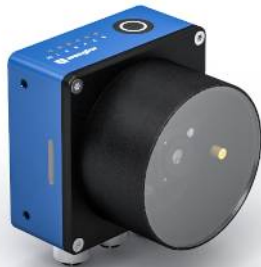


Smart Camera

B60M112

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

Working Range	> 100 mm
Resolution	1440 × 1080 Pixel
Resolution	1,6 MP
Focal distance	12 mm
Image Chip	color
Image chip size	1/2,9"
Pixel Size	3,45 × 3,45 µm
Light Source	Z60F illumination module
Optics	Auto-focus narrow
Laser Class (EN 60825-1)	1
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

Minimum object distance	100 mm
Housing Material	Aluminum, anodised
Optic Cover	Plastic, PMMA
Degree of Protection	IP67
Connection	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1, 8-pin, X-coded (2×)
Web server	yes
License package	uniVision

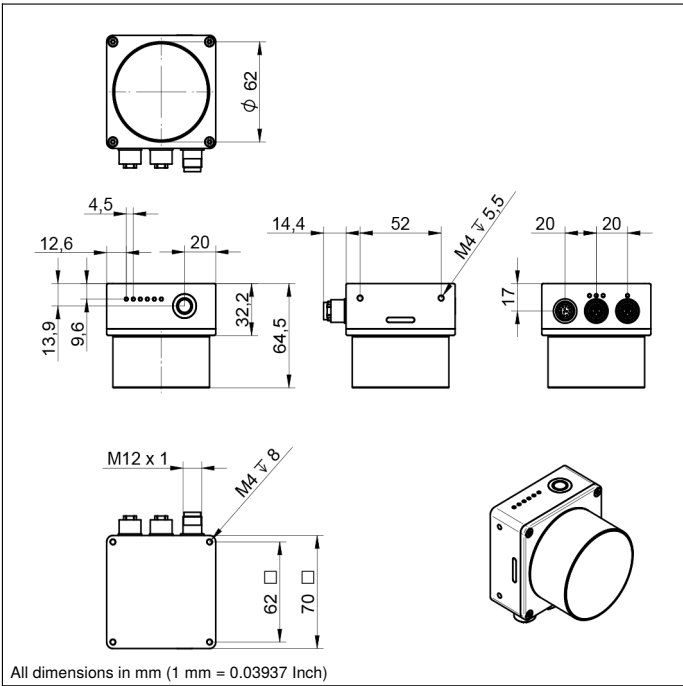
PNP NO

Control Panel No.

B5

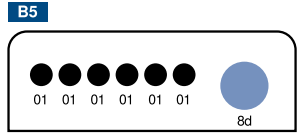
Complementary Products

Connection cables
Filter
Heat sink
License B60 uniVision Extended
License B60 uniVision Robot Vision
License B60 uniVision Script
Z60F lighting module
ZVZJ calibration plate

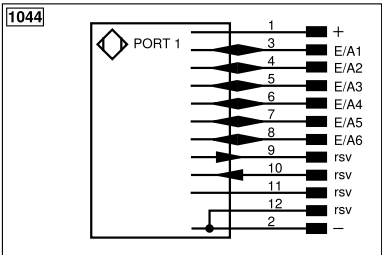
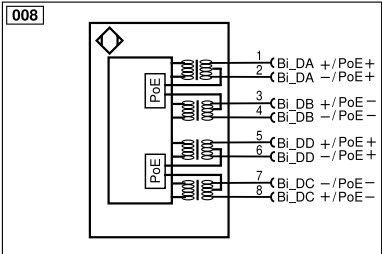
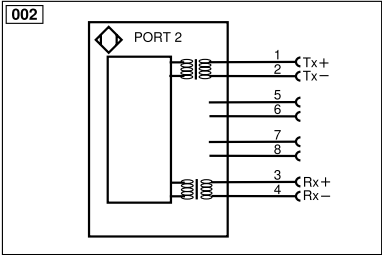


All dimensions in mm (1 mm = 0.03937 Inch)

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	ENAR422	Encoder A/Ā (TTL)

ENBR422	Encoder B/Ĕ (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