

Machine Vision Camera

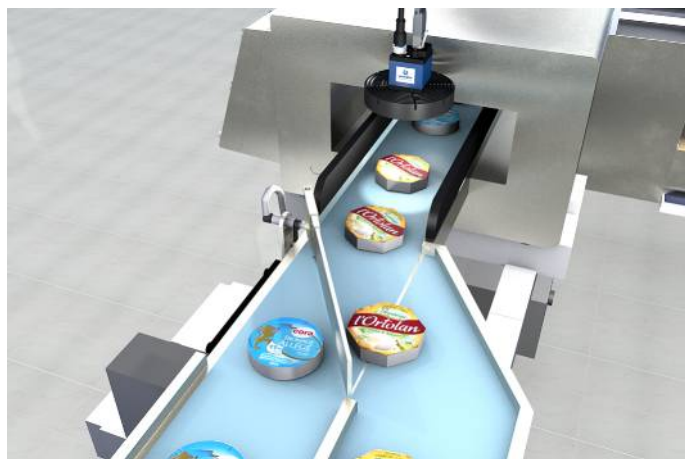
BB6K002

Part Number



- Compact and robust aluminum housing in 29 × 49.1 × 29 mm format
- Different lenses can be adapted thanks to standard thread
- Image chip with Global Shutter for dynamic applications

Machine Vision Cameras make it possible to record images in vision applications. The images are read out via a 1-gigabit Ethernet interface. The camera can be connected via a PoE port so that only one cable is required. The small and rugged aluminum housing as well as the C-mount threaded connection can be easily and flexibly integrated. The high-performance Sony Pregius image chip ensures high frame rates, optimum image quality without noise under difficult lighting conditions and extremely sharp images even in dynamic applications thanks to Global Shutter.



Technical Data

Optical Data

Resolution	1456 × 1088 Pixel
Resolution	1,6 MP
Aspect Ratio	4:3
Pixel Size	3,45 × 3,45 µm
Sensor Type	CMOS
Sensor Designation	Sony IMX273LQR-C
Image Chip	color
Image chip size	1/3"
Frame Rate	< 76 fps

Electrical Data

Supply Voltage	12...24 V DC
Current Consumption (Ub = 24 V)	< 130 mA
Temperature Range	0...55 °C
Storage temperature	-20...60 °C
Atmospheric humidity	20...80 %
Number of GPIOs (general purpose I/Os)	2
GPIO voltage range	0...3,3 V DC
GPIO maximum output current	8 mA
GPIO protective circuit	no
Number of Flash Outputs	1
Flash Output	Optoisolator
Number of trigger inputs	1
Trigger Input	Optoisolator
Short Circuit Protection	no
Overload Protection	no
Supported PoE Classes	2
Supported PoE Standard	IEEE802.3af, IEEE802.at
Protection Class	III

Mechanical Data

Lens thread	C-Mount
Housing Material	Aluminum
Weight	49 g
Degree of Protection	IP30
Connection	HR25, 8-pin
Type of Connection Ethernet	RJ45, 8-pin

Safety-relevant Data

Diagnostic Coverage (DC)	0 %
MTTFd (EN ISO 13849-1)	90,29 a
Mission Time TM (EN ISO 13849-1)	20 a

Function

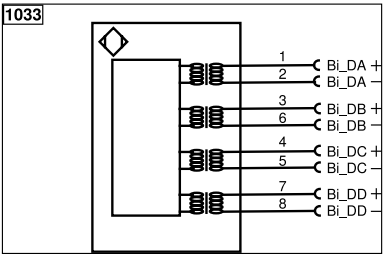
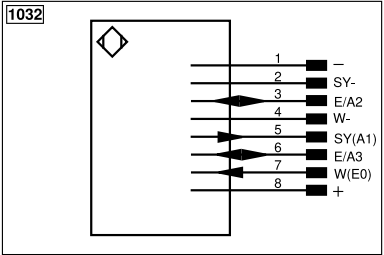
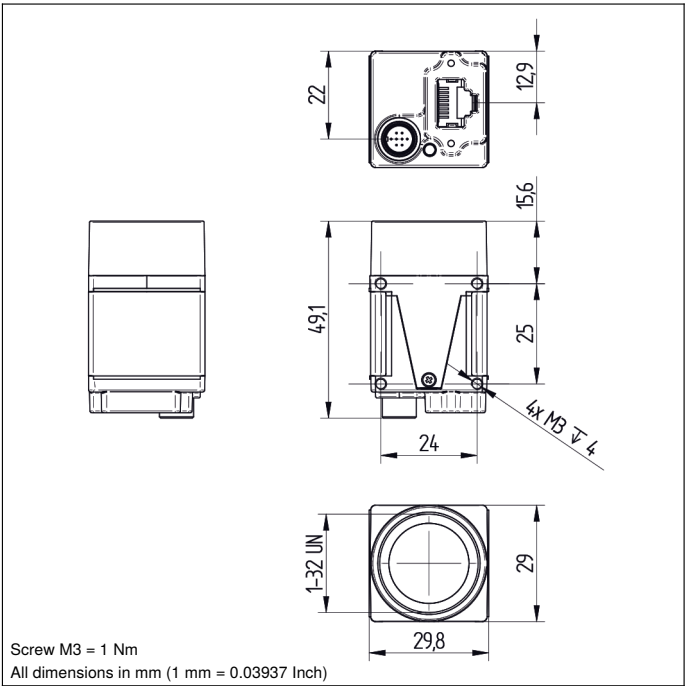
Global Shutter	yes
Subsampling	yes

PoE

Connection Diagram No.	1032	1033
Suitable Connection Equipment No.	85	47
Suitable Mounting Technology No.	580	

Complementary Products

Control Unit BB1C
Illumination Technology
Lens
Software
Switch EHSS001



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	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_DA+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (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