

1) Teach-in reference image 2) Operating voltage 3) Output 1 active 4) Output 2 active 5) Connection with PC 6) Focus



Display/Operation

Adjuster	Adjusting ring button
Setting	Image sharpness Teach-in reference image

Electrical connection

Connection 1	M12x1-Male, 8-pole, A-coded
Connection 2	M12x1-Male, 4-pole, D-coded
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Input function	Trigger Program select
Line-induced noise	3A
No-load current I _o max. at U _e	200 mA
Operating voltage U _b	22...26 VDC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	10 ms
Ripple max. (% of U _e)	10 %
Voltage drop U _d max. at I _e	1.8 V

Environmental conditions

Ambient temperature	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 100 gn, 2ms, 3x8000

EN 60068-2-6, Vibration

55 Hz, amplitude 1 mm, 3x30 min
 10...2000 Hz, amplitude 1 mm,
 30 gn, 3x5 h
 IP54

IP rating

Functional Characteristics

Detection rate typ.	3...15 Hz
Features per inspection, number max.	255
Inspections, number max.	20

Functional safety

MTTF (40 °C)	127 a
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General data

Approval/Conformity	cULus CE
Principle of operation	Vision Sensor
Style	Square Connection 90°

Material

Housing material	Aluminum, die-cast ABS
Housing material, surface protection	Painted
Sensing surface material	PMMA
Surface protection	Painted

Mechanical data

Dimension	51.5 x 70 x 40 mm
Mounting	Screw M4

Optical data

Field of view max.	480 x 360 mm
Field of view min.	24 x 18 mm
Focal length	8.0 mm
Image resolution	VGA 640 x 480 pixels
LED group per IEC 62471	Exempt Group
Light type	LED, red light
Sensor type Vision	CMOS image sensor black-white
Special optical feature	Incident light, can be disabled
Wave length	630 nm

Output/Interface

Duration of time function	Impulse 1...1000 ms or infinite
Interface	Ethernet 10/100 Base T
Supplementary output	Trigger output PNP
Switching output	3x PNP normally open (NO)
Time function	On/off delay Single pulse

Range/Distance

Operating Distance	50...1000 mm
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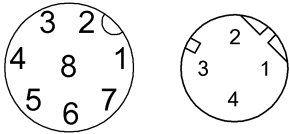
Remarks

Detection rate is dependent on the evaluation function.
 Do not use sensor where object is exposed to strong ambient light.
 Use of external illumination recommended for working distances greater than 300 mm .
 Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Appropriate connectors can be obtained from Balluff.
 Interface plug, if n.c. protect against ingress of dust, dirt and liquids. Cover cap included.
 For additional information, refer to user's guide.
 Order accessories separately.
 Do not press key using a pointed tool.

For more information about MTTF and B10d see MTTF / B10d Certificate

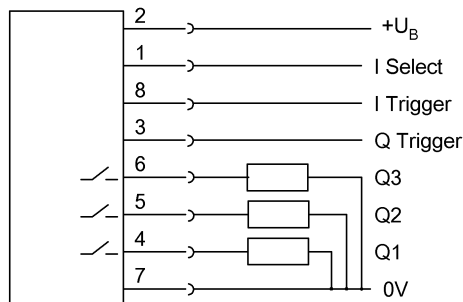
Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector view



Wiring Diagram

Conn. "PWR IO"



Conn. "To PC"

