

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
Setting	Key
	Teach-in reference image
	Image sharpness

## Electrical connection

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

## Electrical data

Line-induced noise	3 A
MTTF (40 °C)	195 a
No-load current I <sub>o</sub> max. at U <sub>e</sub>	200 mA
Operating voltage U <sub>b</sub>	22...26 VDC
Polarity reversal protected	yes
Rated operating current I <sub>e</sub> DC	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	10 ms
Ripple max. (% of U <sub>e</sub> )	10 %
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	1.8 V

## Environmental conditions

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

EN 60068-2-6, Vibration

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

Protection type IEC 60529

## Functional Characteristics

Detection rate typ.	3...50 Hz
Features per inspection, number max.	255
Inspections, number max.	20

## General data

Approval/Conformity	cULus CE
Style	Square Connection 90°

## Material

Housing material	Aluminum, Die casting ABS
Housing material, surface protection	painted
Material sensing surface	PMMA
Surface protection	painted

## Mechanical data

Dimension	51.5 x 70 x 40 mm
Fastening detail	Screw M4

## Optical data

Field of view max.	240 x 180 mm
Field of view min.	55 x 42 mm

Focal length	16.0 mm
Image resolution	VGA 640 x 480 pixels
LED group per IEC 62471	Exempt Group
Light type	Infrared
Sensor type Vision	CMOS image sensor black-white
Special optical feature	Incident light, can be disabled Infrared transmission filter,830 nm
Wave length	870 nm

### Range/Distance

Operating Distance	50...1000 mm
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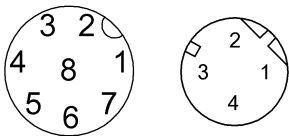
### Remarks

Do not press key using a pointed tool.  
 Order accessories separately.  
 For additional information, refer to users guide.  
 Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Appropriate connectors can be obtained from Balluff.  
 Use of external illumination recommended for working distances greater than 300 mm .  
 Detection rate is dependent on the evaluation function.  
 Interface plug, if n.c. protect against ingress of dust, dirt and liquids. Cover cap included.  
 For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.  
 Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

### Output/Interface

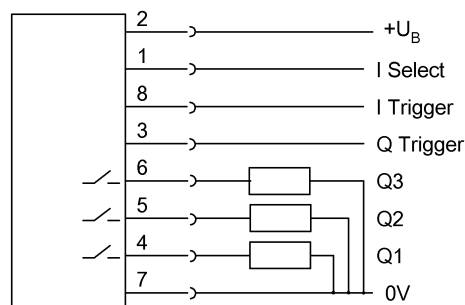
Duration of time function	Pulse 1...1000 ms or infinite
Input function	Program select Trigger
Interface	Ethernet 10/100 Base T
Supplementary output	Trigger output PNP
Switching output	3x PNP Normally open (NO)
Time function	On/off delay Single pulse

### Connector view



### Wiring Diagram

Conn. "PWR IO"



Conn. "To PC"

