Optical Identification
BVS ID-3-005-E
Order Code: BVS001R

BALLUFF

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

Basic features

Application	Multi-Code-Reading
	Verifying character strings
Approval/Conformity	CE
	cULus
	WEEE
Style	Square
	Connection 90°

Display/Operation

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

Electrical connection

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

Electrical data

Input function	Trigger
No-load current Io max. at Ue	200 mA
Operating voltage Ub	22...26 VDC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	10 ms
Ripple max. (% of Ue)	10 %
Voltage drop Ud max. at Ie	1.8 V

Environmental conditions

Ambient temperature	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 100 gn, 2 ms, 3x8000
	Half-sinus, 30 g_n, 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
IP rating	IP54

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Functional Characteristics

2D codes	Data Matrix ECC 200 QR code Mini QR
Barcodes	Interleaved 2-of-5,Code 39, Code 128, Pharmacode,Codabar, EAN 8, EAN 13, UPC-E, UPC-A
Features per inspection, number max.	255
Inspections, number max.	20
Stacked codes	PDF417

Functional safety

MTTF (40 °C)	127 a

Interface

Duration of time function	Impulse 1…1000 ms or infinite
Interface	RS232 (9.6...115.2 kBaud) RS232 (9.6...115.2 kBaud)
Supplementary output	Trigger output PNP
Switching output	3x PNP normally open (NO)
Time function	On/off delay Single pulse

Material

Housing material	Aluminium, Die casting, Painted ABS
Material sensing surface	PMMA
Surface protection	Painted

Mechanical data

Dimension	51.5 x 70 x 40 mm
Mounting part	Screw M4

Optical features

Field of view max.	676 x 507 mm
Field of view min.	34 x 25 mm
Focal length	6.0 mm
Frame rate	3…40 Hz
Image resolution	0.3 MP (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

Range/Distance

Operating Distance	50...1000 mm

Remarks

Detection rate is dependent on the evaluation function.

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.

Order accessories separately.

Do not press key using a pointed tool.

For additional information, refer to user's guide.

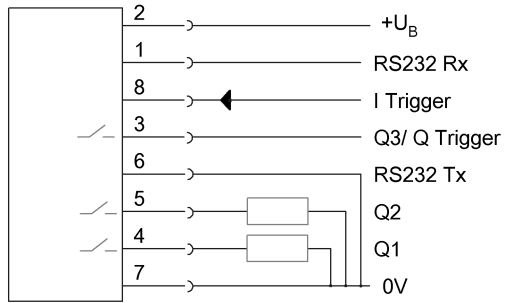For more information about MTTF and B10d see MTTF / B10d Certificate

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 Drawings
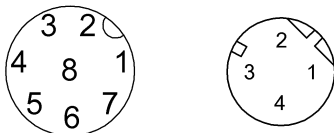
Wiring Diagrams

Conn. "PWR IO"

Pin	Signal
2	+U$_B$
1	RS232 Rx
8	I Trigger
3	Q3/ Q Trigger
6	RS232 Tx
5	Q2
4	Q1
7	0V

Conn. "To PC"

Pin	Signal
1	Rx +
2	Tx +
3	Rx -
4	Tx -

Internet   www.balluff.com

Subject to change without notice: PV150451

eCl@ss 9.1: 27-28-01-03
ETIM 6.0: EC002550
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