

# Blue Eagle digital camera DC3K-1-LVD...

HDR-CMOS megapixel imager sensor device with LVDS interface

## Overview

The Blue Eagle DC3K-1-LVD... is a HDR-CMOS image sensor camera with LVDS data interface. The camera has a cubic housing layout with a pig tail including a HSD connector. Key feature is its very high thermal and mechanical stability. The camera is resistant against harsh environmental conditions like mechanical shocks, vibrations and hazardous atmospheres. Due to its IP68/IP6k9k housing the camera is also suitable for outdoor applications (splash water).

## Features

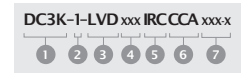
- LVDS data interface
- 12 V<sub>DC</sub> power supply
- Low power consumption
- Wide range of fixed focus optics available  
HFoV<sub>Min</sub> = 55°  
HFoV<sub>Max</sub> = 190°
- Water tight optic with anti-scratch and anti-fog coating
- IP68/IP6k9k protection class
- Extended operating temperature  
T<sub>Min</sub> = -40 °C  
T<sub>Max</sub> = +105 °C

## Applications

- Front view, rear view, area view and blind spot detection
  - Cars
  - Heavy trucks
  - Forklifts
  - Agriculture equipment
  - Mining machines



## Product ID



- 1 Product code**  
Blue Eagle digital camera
- 2 Version**  
1: Standard
- 3 Interface**  
LVD: LVDS-TI
- 4 HFoV (horizontal field of view)**  
190: 190°  
100: 100°  
055: 55°
- 5 Coating**  
IRC: IR coating  
(T > 96% for α=400...680 nm)
- 6 Harness**  
CCA: cubic housing with 30 cm cable
- 7 Connector**  
HSD-A: HSD FAKRA - 4 pins AR0132AT  
HSD-O: HSD FAKRA - 4 pins OV10635

## Specifications

Parameter	
Power supply	V <sub>DC IN - NOM</sub> = 12 V <sub>DC</sub>
Current consumption	60 mA @ 12 V <sub>DC</sub> and 15 fps 65 mA @ 12 V <sub>DC</sub> and 20 fps 80 mA @ 12 V <sub>DC</sub> and 30 fps
Operating temperature	-40 °C ... +105 °C

## Technical data

Parameter	
Sensor type	1/3 inch HDR-CMOS sensor Omnivision [O] = OV10635 Aptina [A] = AR0132AT including AP0100
Supported picture size	WXGA (1280 x 800) HD 720p (1280 x 720) WVGA (752 x 480) VGA (640 x 480)
Sensitivity	A/O: dynamic range: >100 dB (including optic) A: max. S/N ratio: 44 dB O: max. S/N ratio: 39 dB
Data interface	10-100 MHz 10/20-bit DC-balanced FPD-link III serializer DS90UB913Q 10 bit pixel depth until 100 MHz 12 bit pixel depth until 75 Mhz Bi-directional (I <sup>2</sup> C-controller interface at 400 kHz)
Format video stream	Pure transmission of raw signal
General camera parameter	Automated gain control (AGC) Wide dynamic range (WDR) Automated white balance (AWB) Shutter: Electronic rolling shutter (ERS)
Optics	55° ± 2° horizontal field of view 100° ± 2° horizontal field of view 190 ± 2° horizontal field of view Anti-reflection coating (ARC) Anti-scratch and anti-fog

## Certificate

ISO/TS 16949

## Contact

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Revision 02  
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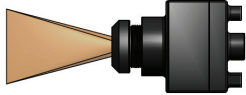
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## Horizontal field of view (HFOV)

55°

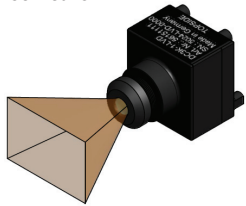
Side view



Top view

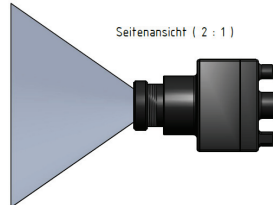


Isometric

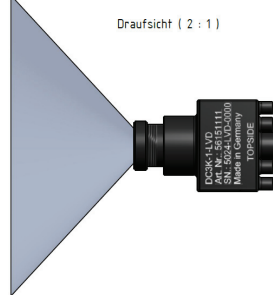


100°

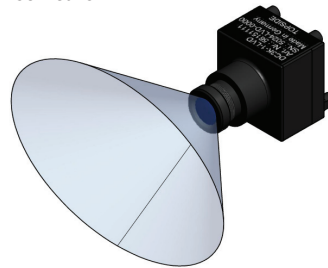
Side view



Top view

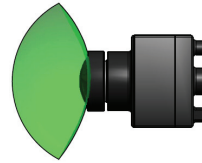


Isometric



190°

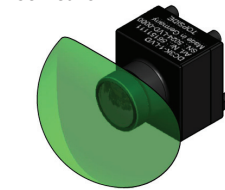
Side view



Top view



Isometric



## Product ID

DC3K-1-LVD xxx IRCCA xxx-x



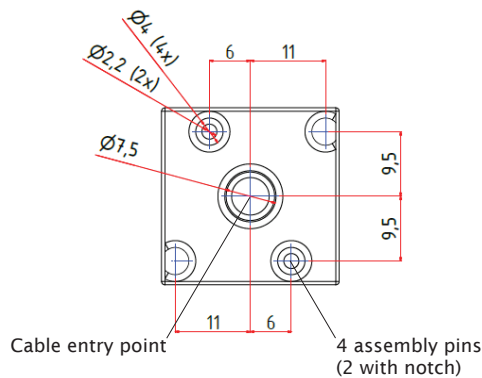
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## Physical dimensions



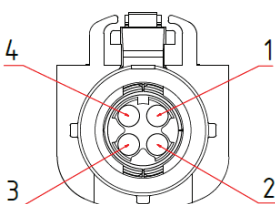
dimensions in mm

## Bottom view - centralized cable entry



dimensions in mm

## Electrical connection



Pin	Connection
1	V <sub>DD</sub>
2	D+
3	GND
4	D-

100 Ω impedance  
Max. counts of connection cycles: 25  
300 mm cable LD5-101-0300-DACAR with D4K10A-1D5A5-Z connector

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