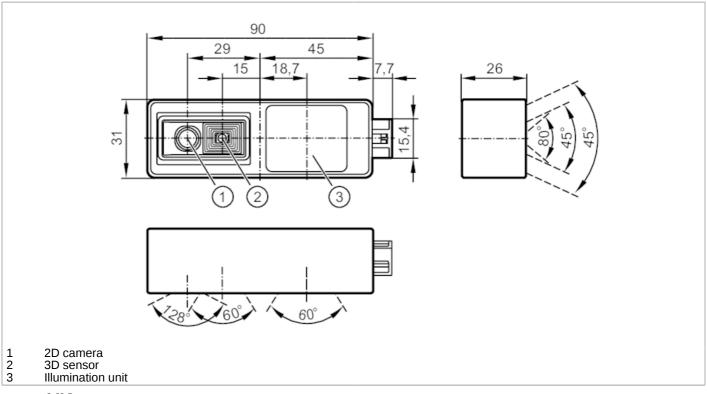
O3R222

3D camera

O3RIOOKG/2D3D/ZN/O/S/60





C€ EK

Product characteristics				
Image resolution	[px]	1280 x 800		
Image resolution 3D	[px]	224 x 172		
Angle of aperture	[°]	128 x 80		
Angle of aperture 3D	[°]	60 x 45		
Image repetition frequency	[Hz]	20		
Image repetition frequency 3D	[Hz]	20		
Electrical data				
Operating voltage	[V]	19.228.8 DC		
Max. current consumption	[mA]	800		
Power consumption	[W]	8.6; ((FPS x 0,32) + 2,2; FPS = Framerate Head)		
Image sensor		PMD 3D ToF-Chip / 2D Chip		
Internal lighting		yes; (infrared: 940 nm invisible radiation)		
Detection zone				
Image resolution	[px]	1280 x 800		
Image resolution 3D	[px]	224 x 172		
Angle of aperture	[°]	128 x 80		
Angle of aperture 3D	[°]	60 x 45		
Image repetition frequency	[Hz]	20		
Image repetition frequency 3D	[Hz]	20		

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Interfaces				
Transmission standard			FPD-Link	
Connector type		HFM (Mini-Fakra)		
Operating conditions				
Ambient temperature	[°C]		-1040	
Storage temperature [°C]		-4085		
Protection		IP 54		
Tests / approvals				
EMC		EN IEC 61000-6-4	radiation of interference / residential, commercial and light-industrial environments	
		EN IEC 61000-6-2	immunity / industrial environments	
Shock resistance		EN 60068-2-27	50 g / (11 ms) not repetitive	
		EN 60068-2-27	40 g / (6 ms) repetitive	
Vibration resistance		EN 60068-2-6	2 g / (10150 Hz)	
		EN 60068-2-64	2.3 g RMS / (10500 Hz)	
Laser protection class			1	
Notes on laser protection		Caution:	invisible laser radiation	
		laser class:	1	
			IEC 60825-1:2014	
			Complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May	
			8, 2019.	
Electrical protection		EN 61010-2-201	8, 2019. electrical supply only via PELV circuits	
Electrical protection Mechanical data		EN 61010-2-201		
	[g]	EN 61010-2-201		
Mechanical data	[g] [mm]	EN 61010-2-201	electrical supply only via PELV circuits	
Mechanical data Weight		housing: die	electrical supply only via PELV circuits 187.9	
Mechanical data Weight Dimensions		housing: die	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window:	
Mechanical data Weight Dimensions Materials	[mm]	housing: die	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated	
Mechanical data Weight Dimensions Materials Tightening torque	[mm]	housing: die	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity	[mm]	housing: die glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/	[mm] [Nm]	housing: die glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A	[mm] [Nm]	housing: die glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A	[mm] [Nm]	housing: die glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated < 0.8 1 pcs.	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00 2.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15 2.30	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80 1.65	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00 2.00 3.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15 2.30 3.45	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: MA; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80 1.65 2.50	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00 2.00 3.00 4.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15 2.30 3.45 4.60	electrical supply only via PELV circuits 187.9 90 x 31 x 26 ccast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80 1.65 2.50 3.30	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00 2.00 3.00 4.00 5.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15 2.30 3.45 4.60 5.80	electrical supply only via PELV circuits 187.9 90 x 31 x 26 cast zinc coated; Cover: PMMA; window: IA; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80 1.65 2.50 3.30 4.15	
Mechanical data Weight Dimensions Materials Tightening torque Remarks Pack quantity Electrical connection - 2D/ Connector: 1 x Dual-HFM (A Other data Field of view size measuring range / distance [1.00 2.00 3.00 4.00	[mm] [Nm] SD camer MK142-1N	housing: die glass / PMM ra M4Z5-A) Length [m] 1.15 2.30 3.45 4.60	electrical supply only via PELV circuits 187.9 90 x 31 x 26 ccast zinc coated; Cover: PMMA; window: 1A; rear of the housing: aluminium coated < 0.8 1 pcs. Width [m] 0.80 1.65 2.50 3.30	

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repeatability of the distance measurement of an individual pixel

measuring range / distance [m]	repeatability of the measured distance values on grey objects (18% reflectivity) [mm]	accuracy [mm]
	typical value	typical value
01	± 5	± 9
12	± 6	± 10
23	± 9	± 12
34	± 13	± 13
45	± 19	± 15
56	± 27	± 16
67	± 36	± 18

object in centre of the image

Ambient temperature

20° C

measured at a reflectivity of 18% to 90%

The repeatability can be optimised with filter functions

Temperature drift

Temperature range	-1040 °C
Temperature drift [mm/K]	0.1