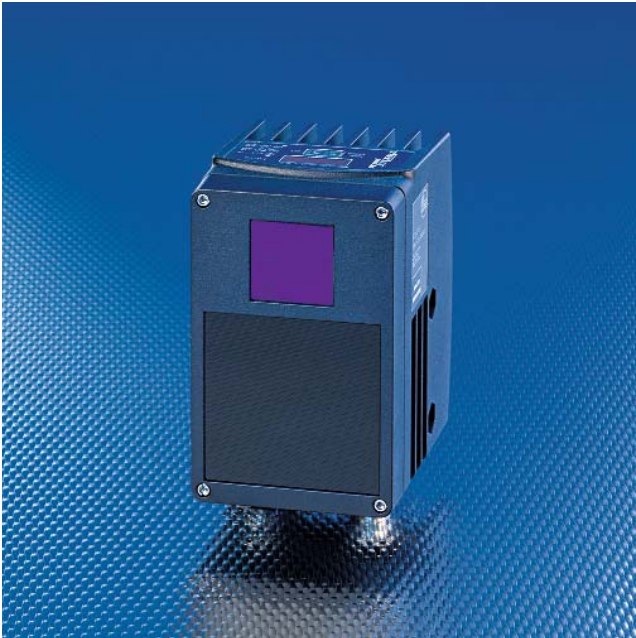




Position sensors and object recognition

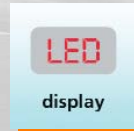


# 3D camera: a brilliant innovation for vision integration.



Detection of scenes and objects in three dimensions at a glance.

- Operating principle: time-of-flight measurement based on pmd technology.
- Illumination, time-of-flight measurement and evaluation in one housing.
- Enormous range up to 6.5 m, unambiguous range even up to 48 m.
- 3,072 distance and grey values for the detailed assessment of your application.
- Integration via a PC parameter setting tool or software connection via SDK.

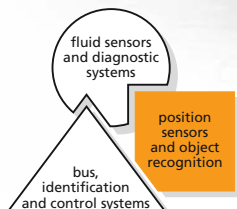
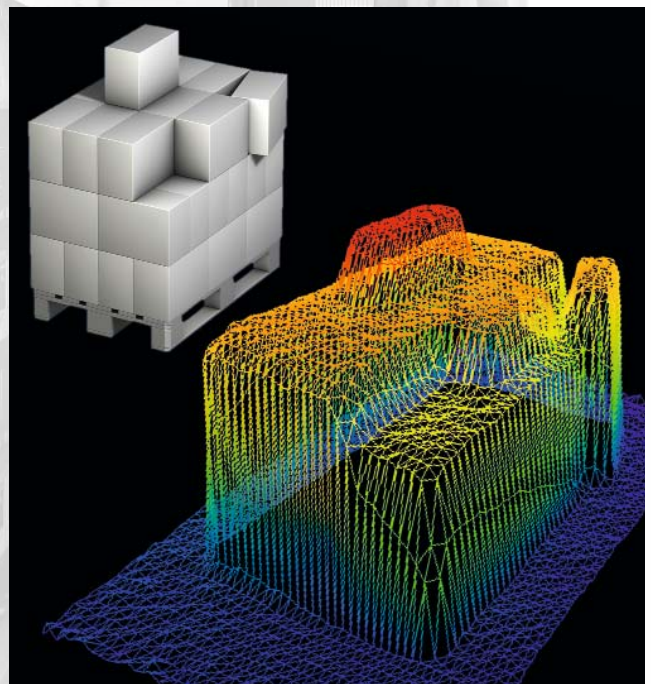


## pmd 3d camera

The *pmd 3d* camera detects scenes and objects at a glance. **PMD** stands for **Photonic Mixer Device** and is the basis of the on-chip time-of-flight measurement method. In addition to the lateral dimension, known as the resolution of a camera chip, this quantum leap in industrial vision also offers the associated depth information without the need for a separate second element.

Because of the maximum range up to 6.5 m and an unambiguous range of 48 m, these 3,072 distance and grey values enable a low-cost solution in a variety of applications. Applications include among others: packaging, storage and materials handling, airport logistics, collision avoidance, robotics, monitoring of space and persons.

The camera is smoothly integrated into its programming environment via a software development kit (SDK).




**Applications: packaging, storage and materials handling, airport logistics, collision avoidance, robotics, monitoring of space and persons**





**Accessories**

Type	Description	Order no.
	Operating software for 3D camera	<b>E3D201</b>
	Mounting set for clamp mounting, Ø 14 mm, stainless steel	<b>E3D103</b>
	Mounting rod, 100 mm, Ø 14 mm, M12 thread, stainless steel	<b>E20939</b>
	Mounting rod, 200 mm, Ø 14 mm, stainless steel	<b>E21228</b>
	Mounting rod, 300 mm, Ø 14 mm, stainless steel	<b>E21229</b>
	Mounting rod, 500 mm, Ø 14 mm, stainless steel	<b>E21232</b>

**Power supplies**

Type	Description	Order no.
	Switched-mode power supply 24 V DC, primary, output current 2.5 A, regulated	<b>DN2011</b>

**Connectors and splitter boxes**

Type	Description	Order no.
	Parameter setting cable, 2 m, M12 D-coded / RJ45, cross-link	<b>E11898</b>
	Socket, M12, 2 m PUR cable, 8-pole	<b>E11950</b>
	Socket, M12, 5 m PUR cable, 8-pole	<b>E11807</b>
	Socket, M12, 10 m PUR cable, 8-pole	<b>E11311</b>

**Technical data O3D201**

Type of sensor	PhotonICs® PMD, resolution: 64 x 48 pixels
Sampling rate/switching frequency [Hz]	max. 25, adjustable
Function display	LED 4 x yellow, 4 x green
Result display / dialogue	4-digit 10-segment display
Angle of aperture	30° x 40°
Illumination	infrared (850 nm)
Operating voltage [V]	24 DC (± 10 %)
Current consumption [mA]	< 1000 (max. 2500)
Current rating [mA]	100 (per switching output)
Short-circuit protection, pulsed	•
Overload protection	•
Operating temperature [°C]	-10...50
Storage temperature [°C]	-40...85
Protection	IP 67, III
Material	Housing: diecast zinc Front lens: polycarbonate LED window: polycarbonate
Trigger	external: 24 V PNP acc. to IEC 61131-2 type 2, internal
Switching inputs	max: 2 (configurable), 24 V PNP acc. to IEC 61131-2 type 2
Switching outputs	max: 2 (configurable) 24 V PNP
Analogue output (configurable)	4...20 mA acc. to IEC 61131-2, max. load 300 Ω
scalable	0...10 V acc. to IEC 61131-2, min. load 10 kΩ
Parameter setting options	via PC / notebook or 10-segment display and 2 buttons
Parameter setting interface	Ethernet 10 Base-T / 100 Base-TX