



Industrial imaging

Depalletising of uniform packages made easy

TOP
PRODUCT



3D sensors



Depalletising of a complete layer or individual packages

Slip sheet detection

Calculation of the remaining items

Integrated collision avoidance

Automatic calibration of robot camera coordinates

Economic and ergonomic

IP 65
IP 67

High-grade
stainless
steel

Ethernet

Ethernet/IP

IP 69 K

PROFINET

Optimisation of logistic processes

The automatic depalletising of packages of the same size, e.g. cardboard boxes, crates, outer packaging or containers, optimises logistic processes by dynamic feeding.

The 3D sensor detects displaced loads and compensates for incorrect positioning with the depalletising system. Position indication allows fully automated depalletising of complete layers or individual packages, independent of the palletising pattern. Besides the data for robot control, the Ethernet process interface provides information for the material and warehouse management software.

Automated depalletising systems provide a clear increase in performance by means of economic tools and reduce the employees' load due to ergonomically optimised working environments.



Type of sensor	Material housing	Material front pane / LED window	Protection rating, protection class	Angle of aperture [°]	Max. field of view size [m]	Order no.
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PMD 3D sensors · Type O3D · M12 connector

PMD 3D ToF chip	Aluminium	Gorilla glass / polyamide	IP 65, IP67 / III	40 x 30	2.61 x 3.47	O3D300
PMD 3D ToF chip	Aluminium	Gorilla glass / polyamide	IP 65, IP67 / III	60 x 45	3.75 x 5.00	O3D302
PMD 3D ToF chip	Stainless steel	PMMA / polyamide	IP 65, IP 67, IP 69K / III	40 x 30	2.61 x 3.47	O3D310
PMD 3D ToF chip	Stainless steel	PMMA / polyamide	IP 65, IP 67, IP 69K / III	60 x 45	3.75 x 5.00	O3D312

Technical data depalletising systems

Operating distance	[m]	0.5...6
Object types		Closed rectangular objects
Min. object size	[mm]	50 x 50 x 50 (at minimum operating distance)
Typical accuracy Object position	[mm]	± 15
Typical accuracy for angle of rotation	[°]	± 3
Sampling rate / switching frequency	[Hz]	1

Further technical data

Operating voltage	[V DC]	20.4...28.8
Current consumption	[mA]	< 2400 peak current pulsed; typ. mean value 420
Current rating (per switching output)	[mA]	100
Short-circuit protection, pulsed		•
Overload protection		•
Ambient temperature	[°C]	-10...50
Real chip resolution		25,000 / 100,000
Resulting resolution		176 x 132 pixels
Function display	LED	2 x yellow, 2 x green
Illumination		850 nm, infrared
Immunity to extraneous light	[klx]	8 (up to 100 klx possible with reduced measuring accuracy and repeatability)
Trigger		external; 24 V PNP/NPN according to IEC 61131-2 type 3
Switching inputs		2 (configurable), 24 V PNP/NPN according to IEC 61131-2 type 3
Switching outputs digital		3 (configurable), 24 V PNP/NPN, according to IEC 61131-2
Switching outputs analogue		1 (can be configured as current output 4...20 mA or voltage output 0...10 V)
Parameter setting interface Ethernet		10 Base-T / 100 Base-TX
Possible parameter settings		via PC / notebook
Dimensions (H, W, D)	[mm]	72 x 67.1 x 95

Accessories

Design	Description	Order no.
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Mounting accessories

	Mounting set for O3D	E3D301
	Dissipators	E3D302
	Double cooling element	E3D304
	Heat conductor	E3D303

Connection technology

	Ethernet, cross-over patch cable, 2 m, PVC cable, M12 / RJ45	E11898
	Ethernet, jumper cable, 2 m, PVC cable, M12 / M12	E21138
	Socket, M12, 2 m black, PUR cable, 8-pole	E11950

We reserve the right to make technical alterations without prior notice. · 04/2018