

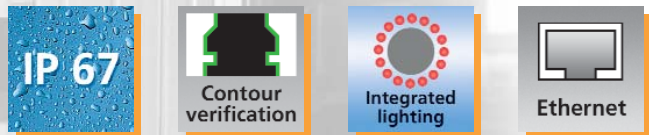


efector[®] duolis Image sensor – the electronic eye.



Object recognition for assembly and manufacturing tasks and for quality control.

- Stand-alone unit with integrated lighting.
- Compact and robust design.
- Easy parameter setting.
- Integrated Ethernet interface.



Stand-alone unit:

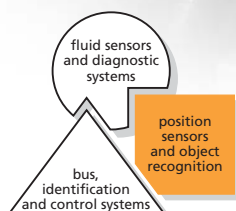
With integrated lighting and evaluation in a robust, industrially compatible IP 67 housing for use in the temperature range of -10...60 °C.

Industrial image checking system:

With orientation-independent contour verification. It solves tasks like presence and position monitoring, quality control as well as sorting tasks.

Handling concept:

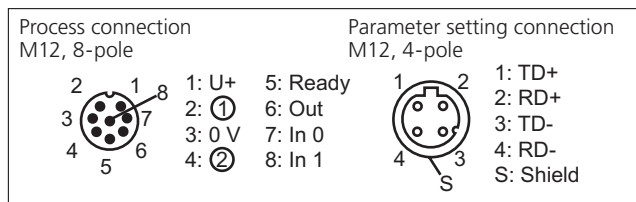
The menu-guided PC parameter setting via Ethernet interface allows quick adjustment to your application. The Ethernet interface moreover allows remote maintenance with error image and evaluation data memory as well as an update option for the sensors. Parameters can also be set on the unit via two pushbuttons and the 4-digit 10-segment display.



Applications:
Monitoring presence, completeness, position, quality control as well as sorting tasks.






Operating distance [mm]							Order no.
50	75	100	200	400	1000	2000	
Field of view size [mm] · Resolution from 0.1 mm							
20 x 14	28 x 20	36 x 26	68 x 50	–	–	–	O2D220
46 x 32	61 x 44	77 x 56	140 x 100	–	–	–	O2D222

Pin connection








- 1) Trigger input
- 2) Trigger output / switching output 5

Accessories

Type	Description	Order no.
	Stainless steel mounting set for rod mounting Ø 12 mm	E2D110
	Stainless steel mounting set for rod mounting Ø 14 mm	E2D112
	Operating software for image sensor	E2D200
	Clamp linking ring, high-grade stainless steel	E21076
	Clamp, high-grade stainless steel, Ø 12 mm	E21110

Connectors and splitter boxes

Type	Description	Order no.
	M12 socket, 2 m, PUR cable, 8-pole	E11231
	M12 socket, 5 m, PUR cable, 8-pole	E11232
	M12 socket, 5 m, PUR cable, 8-pole	E11807
	M12 socket, 10 m, PUR cable, 8-pole	E11311
	2 m Ethernet cable, M12 D-coded / RJ45, cross-link	E11898

Common technical data

Type of sensor	CMOS image sensor black/white, VGA resolution, 640 x 480	
Detection rate	[Hz]	max. 20
Motion speed	[m/s]	typ. 1
Function display	Ready for operation LED green Ethernet status LED green Connection status LED green Output status indication LED 4 x yellow	
Result display / dialogue	4-digit 10-segment display	
Laser marking field of view	red light, laser protection class 2, can be deactivated	
Operating voltage	[V]	24 DC ± 10 %
Current consumption	[mA]	< 300
Current rating	[mA]	100 (per switching output)
Type of light	infrared, direct illumination	
Short-circuit / overload protection	• / •	
Operating temperature	[°C]	-10...60
Protection	IP 67, III	
Material	Housing Front lens LED window	diecast zinc glass polycarbonate
Trigger	external, 24 V PNP to IEC 61131-1 type 2 internal	
Switching inputs (configurable)	max. 2, 24 V PNP to IEC 61131-2 type 2	
Switching outputs (configurable)	max. 5, 24 V PNP	
Connection external lighting	24 V PNP	
Parameter setting possibilities	via PC / notebook or 10-segment display and 2 pushbuttons	
Parameter setting interface	Ethernet 10Base-T / 100Base-TX	
Dimensions	[mm]	60 x 42 x 53

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Position sensors and object recognition