product news

ifm electronic

Position sensors and object recognition

Vision sensor takes a closer look at your production.

Optical object inspection for packaging, manufacturing and quality control.

- **Stand-alone unit with integrated illumination.**
- **For inspection tasks with variable features.**
- **Compact and robust design.**
- **User-friendly parameter setting.**
- **Integrated Ethernet process interfaces (TCP/IP, Ethernet IP).**

efector® dualis

IP 67 | Ethernet | Integrated lighting | M12 connector

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.

User-friendly parameter setting

All parameters can be set conveniently via a menu-guided parameter setting software.

Object recognition

The blob analysis used determines the selected characteristics of objects. They allow to check the presence, size, position or completeness of the objects.

Ethernet process interfaces

The Ethernet interface also provides remote maintenance with storage of error images and evaluation data, an update option for the sensors as well as the process image for the connection of programmable logic controllers.

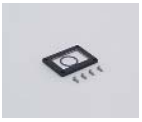
The vision sensor checks if the chocolate mould is empty before it is refilled.

fluid sensors and diagnostic systems
position sensors and object recognition
bus, identification and control systems

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

Type of light	Operating distance [mm]							Order no.
	50	75	100	200	400	1000	2000	
Switching outputs PNP · Field of view size [mm] · Resolution from 0.1 mm								
white light	16 x 12	24 x 18	32 x 24	64 x 48	128 x 96	320 x 240	640 x 480	**O2V100**
	33 x 24	50 x 36	66 x 47	132 x 94	264 x 189	660 x 472	1320 x 945	**O2V102**
	–	15 x 11	20 x 15	40 x 30	80 x 60	200 x 150	400 x 300	**O2V104**
Switching outputs NPN · Field of view size [mm] · Resolution from 0.1 mm								
white light	16 x 12	24 x 18	32 x 24	64 x 48	128 x 96	320 x 240	640 x 480	**O2V101**
	33 x 24	50 x 36	66 x 47	132 x 94	264 x 189	660 x 472	1320 x 945	**O2V103**
	–	15 x 11	20 x 15	40 x 30	80 x 60	200 x 150	400 x 300	**O2V105**

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	**E2V100**
	Clamp linking ring, high-grade stainless steel	**E21076**
	Clamp, high-grade stainless steel, Ø 12 mm	**E21110**
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**
	Mounting rod, 100 mm, Ø 14 mm, M12 thread, stainless steel	**E20939**
	Mounting rod, 150 mm, Ø 12 mm	**E21111**
	Mounting rod, 200 mm, Ø 12 mm	**E21112**
	Mounting rod, 300 mm, Ø 12 mm	**E21113**
	Diffuser	**E21165**
	Protective plastic cover	**E21166**
	Protective glass cover	**E21168**
	Ethernet cable, 2 m, M12 D-coded	**E21138**
	Ethernet cable, 5 m, M12 D-coded	**E21139**
	Ethernet cable, 10 m, M12 D-coded	**E21137**
	Ethernet adapter, M12 / RJ45, angled	**E21140**

Common technical data		
Type of sensor		CMOS image sensor black/white, 640 x 480
Detection rate	[Hz]	max. 10
Motion speed	[m/s]	typ. 1
Function display	LED	7
Operating voltage	[V]	24 DC ± 10 %
Current consumption	[mA]	< 300
Current rating	[mA]	100 (per switching output)
Ambient temperature	[°C]	-10...60
Protection		IP 67, III
Material	housing front lens LED window	diecast zinc glass polycarbonate
Switching inputs (configurable)		max. 2 , 24 V
Switching outputs (configurable)		max. 5, 24 V
Connection external lighting		DC 24 V
Parameter setting interface		Ethernet TCP/IP / Ethernet IP
Dimensions	[mm]	60 x 42 x 53 (59)

Connectors and splitter boxes

Type	Description	Order no.
	M12 socket, 2 m, PUR cable, 8-pole	**E11950**
	M12 socket, 5 m, PUR cable, 8-pole	**E11807**
	Parameter setting cable, 2 m, M12 D-coded / RJ45, cross-link	**E11898**

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