

O2D524



Object recognition sensor

O2DIRDKG/E1/E2/EF/GM/TB/T10



- 1 lens
- 2 Illumination unit



Product characteristics

Type of light	Infrared light
Image resolution [px]	1280 x 960
Max. reading rate [Hz]	40

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 300; (24V DC typical)
Max. current consumption [mA]	950; (18V DC, with switched outputs, memory stick active)
Protection class	III
Reverse polarity protection	yes
Overvoltage category	II



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Type of light	Infrared light				
Wave length [nm]	850				
Image sensor	CMOS image sensor black/white				
Inputs / outputs					
Number of inputs and outputs	Number of digital inputs: 3; Number of digital outputs: 5				
Inputs					
Trigger	external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; EtherNet/IP; internal				
Number of digital inputs	3				
Input circuit of digital inputs	24 V PNP/NPN; (type 3 (IEC 61131-2))				
Outputs					
Electrical design	PNP/NPN; (configurable)				
Number of digital outputs	5; (configurable)				
Output function	configurable				
Max. voltage drop switching output DC [V]	1				
Max. current load per output [mA]	100				
Short-circuit protection	yes				
Type of short-circuit protection	yes (non-latching)				
Overload protection	yes				
Monitoring range					
Field of view size [mm]	Operating distance	Field of view			
	200	38 x 29			
	300	58 x 43			
	500	96 x 72			
	1000	192 x 144			
	1500	288 x 216			
	2000	384 x 288			
	5000	960 x 720			
Operating distance [mm]	> 200				
Image resolution [px]	1280 x 960				
Lens type	Telephoto lens				
Max. reading rate [Hz]	40				
Software / programming					
Parameter setting options	via PC with ifm Vision Assistant				
Interfaces					
Communication interface	Ethernet				
Ethernet					
Number of Ethernet interfaces	1				
Transmission standard	10Base-T; 100Base-TX				
Transmission rate	10 MBit/s; 100 MBit/s				
Protocol	TCP/IP; EtherNet/IP				

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Factory settings	IP address: 192.168.0.69
	subnet mask: 255.255.255.0 (Class C)
	gateway IP address: 192.168.0.201
	MAC address: see type label
Usage type	Parameter setting; Data transmission

Operating conditions		
Ambient temperature	[°C]	-10...50
Storage temperature	[°C]	-40...70
Max. relative air humidity	[%]	90; (non condensing)
Max. height above sea level	[m]	4000
Protection		IP 65
Degree of soiling		3

Tests / approvals		
EMC	EN IEC 61000-6-4 radiation of interference	industrial environments
	EN IEC 61000-6-2 noise 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 (10 ... 150 Hz)
Photobiological safety		exempt group; (EN 62471)
Electrical safety	EN IEC 61010-2-201	electrical supply only via PELV circuits
MTTF	[years]	52
UL approval	Ta	-10...50 °C
	Enclosure type	1
	voltage supply	Limited Energy
	File number UL	E364788

Mechanical data		
Weight	[g]	622.4
Type of mounting		screw mounting; (bore hole M4 x 7mm)
Dimensions	[mm]	45 x 45 x 86
Material		housing: diecast zinc powder-coated; front lens: gorilla glass; LED window: PC; pushbuttons: POM
Sealing material		FKM
Tightening torque	[Nm]	2.1

Displays / operating elements		
Display	Function	2 x LED, green
	Function	2 x LED, yellow
	Multi-function button	2 x LED, green/yellow
Operating elements	1	Multi-function button

Accessories		
Accessories (optional)		Mounting accessories
		Protective panes

Remarks		
Pack quantity		1 pcs.

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Electrical connection - Ethernet

Connector: 1 x M12; coding: D; Moulded body: stainless steel; sealing: FKM



1	TxD+
2	RxD+
3	TxD-
4	RxD-
	shield connected

Electrical connection - supply

Connector: 1 x M12; coding: A; Moulded body: stainless steel



1	24 V DC
2	trigger input
3	GND
4	Switching output OUT5
5	Switching output OUT3 Ready
6	Switching output OUT4
7	Switching output OUT1 / IN1
8	Switching output OUT2 / IN2