

O2D502



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/W/30



- 1 lens
- 2 Illumination unit



Product characteristics

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

Application

System	polarization filter
--------	---------------------

Electrical data

Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 300; (24V DC typical)
Max. current consumption	[mA]	1100; (18V DC, with switched outputs, memory stick active)
Protection class		III



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/W/30

Reverse polarity protection	yes
Overvoltage category	II
Type of light	RGBW
Wave length [nm]	625; 525; 453
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		
	35	25 x 19		
	300	184 x 138		
	500	304 x 228		
	1000	604 x 453		
	1500	904 x 678		
	2000	1204 x 903		
	2500	1504 x 1128		
Operating distance [mm]	> 35			
Image resolution [px]	1280 x 960			
Lens type	Wide angle			
Polarization filter available	yes			
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



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/W/30

Protocol	TCP/IP; EtherNet/IP
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	risk group 1; (EN 62471)	
Electrical safety	EN IEC 61010-2-201	electrical supply only via PELV circuits
MTTF	[years]	57
UL approval	Ta	-10...50 °C
	Enclosure type	1
	voltage supply	Limited Energy
	File number UL	E364788

Mechanical data		
Weight	[g]	621.75
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.

O2D502



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/W/30

Electrical connection - Ethernet

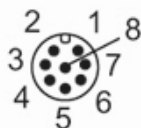
Connector: 1 x M12; coding: D; Moulded body: stainless steel; sealing: FKM



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