



Position sensors and object recognition

# The new O5 for hazardous dust areas.



For ATEX 3D areas according to the latest standards.

- Tried-and-tested photoelectric sensors now for hazardous areas.
- Long ranges.
- Highest precision with background suppression.
- Quick setting by means of the new teach method.
- Universal mounting using system components and mounting accessories.



II 3D  
ATEX



TEACH-IN  
for simple operation.

High  
sensing  
range



Rotatable  
connection



## Applications in hazardous dust areas

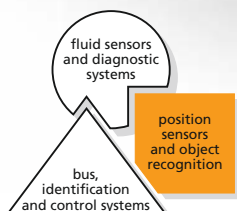
These units comply with category 3D for use in zone 22 hazardous areas with non-conductive dusts.

## Versions

New sensors for hazardous dust areas complement the successful O5 opto family of ifm electronic. The new versions are based on the established O5 Performance Line diffuse reflection sensors with background suppression, retro-reflective sensors with polarisation filter and the through-beam system.

## Mounting accessories

The ATEX sensor is compatible with the tried-and-tested mounting accessories and system components of the O5 series.



**Applications:**  
position detection in packaging and conveying

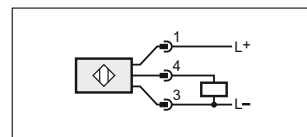
Range [mm]	Teach button	Switching frequency [Hz]	Protection	Light-on / dark-on mode	Current consumption [mA]	Order no.
<b>Diffuse reflection sensor · red light 624 nm · M12 connector · background suppression · PNP · wiring diagram no. 1</b>						
50...1800	•	1000	IP 65, III	programmable	25	<b>O5H51A</b>
<b>Retro-reflective sensor · red light 624 nm · M12 connector · polarisation filter · PNP · wiring diagram no. 1</b>						
75...10000	•	2000	IP 65, III	programmable	20	<b>O5P51A</b>
<b>Through-beam sensor · red light 624 nm · M12 connector · transmitter · PNP · wiring diagram no. 2</b>						
0...25000	–	–	IP 65, III	–	20	<b>O5S51A</b>
<b>Through-beam sensor · red light 624 nm · M12 connector · receiver · PNP · wiring diagram no. 1</b>						
0...25000	•	1000	IP 65, III	programmable	11	<b>O5E51A</b>

**System components**

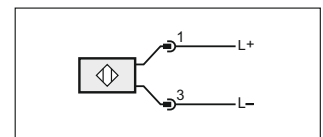
Type	Description	Order no.
	Prismatic reflector 50 x 50 mm	<b>E20744</b>
	Prismatic reflector 95 x 95 mm	<b>E20454</b>
	Prismatic reflector Ø 42 mm	<b>E20004</b>
	Prismatic reflector Ø 80 mm	<b>E20005</b>
	Clamp with M10 x 55 mm screw	<b>E20716</b>
	Clamp with M10 x 55 mm screw, stainless steel	<b>E20946</b>
	Cube for mounting on an aluminium profile, M10 thread, diecast zinc	<b>E20951</b>

Common technical data		
Operating voltage [V]		10...30 DC
Current rating [mA]		100
Voltage drop [V]		< 2.5
Short-circuit protection, pulsed		•
Reverse polarity / overload protection		• / •
Operating temperature [°C]		-10...50
EMC		DIN EN 60947-5-2
Material		PA PMMA stainless steel
Housing / plug adapter		
Front pane / LED window		
Bezel / protective bracket		
Approval		Ex II 3D Ex tD A22 IP 65 T105 °C X

**Wiring diagrams of the units**






wiring diagram no. 1



wiring diagram no. 2

**Connectors and splitter boxes**

Type	Description	Order no.
	Socket, M12, 4-pole, 2 m black, PUR cable	<b>EVC04A</b>
	Socket, M12, 4-pole, 5 m black, PUR cable	<b>EVC05A</b>
	Socket, M12, 4-pole, 10 m black, PUR cable	<b>EVC06A</b>

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