

Compact design with exceptional performance

PMD distance sensor – the all-rounder for confined spaces

- Maximum range of 3 m for the O6 type
- Robust object detection thanks to angle- and colour-independent PMD technology
- Ultimate Black Mode for reliable detection of deep black and reflective objects
- Three operating modes in one device for maximum flexibility



IP67 IO-Link ToF

ifm – close to you!

Description	Order no.
O6 type PMD distance sensor, M8 connector	**O6D100**
O6 type PMD distance sensor, 0.3 m connection cable with M12 connector	**O6D101**
O6 type PMD distance sensor, 2 m connection cable	**O6D102**

Common technical data		
Measuring range (distance)	[mm]	30…3000
Adjustable object reflectivity	[%]	6…200
Type of light / wave length	[nm]	laser light 680
Front pane material		glass
Measuring frequency	[Hz]	max. 140
Protection rating		IP65, IP67

Universal application possibilities

The O6D100 has been designed as a powerful all-rounder for typical applications in object detection, distance measurement and positioning. Typical applications include material handling, robotics, assembly automation and logistics.

Thanks to its PMD time-of-flight technology, the sensor enables reliable and robust detection regardless of an object's colour, angle and characteristics. The new Ultimate Black Mode makes it particularly effective when dealing with dark, reflective or otherwise challenging objects.

The three operating modes Fine, Standard and Fast can be switched via IO-Link, offering maximum flexibility. This allows one single sensor to meet the requirements of a wide range of applications. With a long detection range of 3 metres, it is also suitable for use outside the immediate process environment.

Another standout feature is the adjustable hysteresis. The factory setting enables stable switching states even with changing colours. For single-colour objects, the user can adjust hysteresis via IO-Link.

Quick integration thanks to standard design

With its compact dimensions in the widely used O6 housing, the sensor integrates seamlessly into existing machine set-ups. No new accessories are required for installation. The electrical connection is easily established via an M8 connector. Thanks to IO-Link, the sensor can be quickly integrated into modern control architectures and configured remotely.

BEST FRIENDS



moneo|configure free
Software for parameter setting of the IO-Link infrastructure



IO-Link master
Field-compatible masters with Profinet interface



O3D 3D sensor
For object measurement, gripper navigation and much more

For further technical details, please visit: ifm.com/fs/O6D100

We reserve the right to make technical alterations without prior notice. · 11.2026
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