



Industrial imaging

Mobile 3D camera – 2D and 3D in one unit



Camera systems for
mobile machines



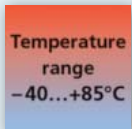
Robust outdoor camera platform for innovative function development

Synchronous output of 3D point cloud and live camera image

Robust raw data, independent of ambient light and colour

Video output (PAL) and Ethernet UDP

High shock and vibration resistance



Two images in one unit

The O3M250 is the first 3D sensor system with integrated 2D camera for the output of a calibrated video image. In this context, calibrated means that the 2D image is superimposed on the 3D image.

For external evaluation

The camera system has been designed for system integrators and customers who intend to use 3D sensor data with their own algorithms in an external process unit. The image is sent as a PAL video image and the 3D point cloud is transmitted via Ethernet UDP.

Easy setup

ifm offers the Windows software "ifm Vision Assistant" for setup and parameter setting.



Resolution [pixels]	Angle of aperture horizontal x vertical [°]	Angle of aperture 2D [°]	Illumination	Max. sampling rate [Hz]	Order no.
PMD 3D sensor · Type O3M · M12 connector					
64 x 16	70 x 23	90	Ext. illumination required (O3M950)	25/33/50	O3M250
64 x 16	95 x 23	120	Ext. illumination required (O3M960)	25/33/50	O3M260

Connection technology

Type	Description	Order no.
	MCI cable, connection sensor / system illumination unit, 0,25 m	E3M120
	MCI cable, connection sensor / system illumination unit, 1 m	E3M121
	MCI cable, connection sensor / system illumination unit, 2 m	E3M122
	MCI cable, connection sensor / system illumination unit, 3 m	E3M123
	M12 video connection cable, connection sensor / display PDM360, 5 m	E3M151
	M12 video connection cable, connection sensor / display PDM360, 11 m	E3M152
	M12 video connection cable, connection sensor / display PDM360, 16 m	E3M153
	M12 video connection cable, connection sensor / display PDM360, 21 m	E3M154
	M12 video extension cable, 5 m	E3M159
	M12 video adapter cable / Cinch plug, for connection of a video grabber, 1 m	E3M160
	M12 socket, voltage supply system illumination unit, 2 m, PUR cable, 4 poles	E3M131
	M12 socket, voltage supply system illumination unit, 5 m, PUR cable, 4 poles	E3M132
	M12 socket, voltage supply system illumination unit, 10 m, PUR cable, 4 poles	E3M133
	Ethernet, cross-over patch cable, 2 m, PVC cable, M12 / RJ45	E11898
	Ethernet, cross-over patch cable, 10 m, PVC cable, M12 / RJ45	E12204
	Ethernet, cross-over patch cable, 20 m, PVC cable, M12 / RJ45	E12205
	CAN jumper, screened, 2 m, PUR cable, M12 plug / M12 socket	E11593
	CAN jumper, screened, 5 m, PUR cable, M12 plug / M12 socket	E11594
	CAN jumper, screened, 10 m, PUR cable, M12 plug / M12 socket	E11595

Further technical data O3M250

Type of sensor	1/4" 4:3 VGA CMOS image sensor Color	
PAL resolution	[pixels]	640 x 480
Housing material	diecast aluminium	
Connection	M12 connector	
Protection rating, protection class	IP 67 / IP 69K, III	
Operating voltage	[V DC]	9...32
Current consumption sensor	[mA]	< 500
Current consumption system illumination unit	[A]	< 5
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...105
Interfaces	1 x fast Ethernet, 1x PAL	
Standards and tests (extract)	CE, E1 (UN-ECE R10)	

Accessories

Type	Description	Order no.
	IR system illumination unit (850 nm) for mobile 3D sensors, angle of aperture 70 x 23	O3M950
	IR system illumination unit (850 nm) for mobile 3D sensors, angle of aperture 95 x 32	O3M960
	CAN/RS232 USB interface CANfox	EC2112
	Adapter cable set for CANfox	EC2114
	Operating software for vision sensors	E3D300
	U-shaped bracket, suitable for sensor or illumination unit	E3M102
	Weather protective cover (the article E3M100 or E3M102 is required for installation)	E3M101