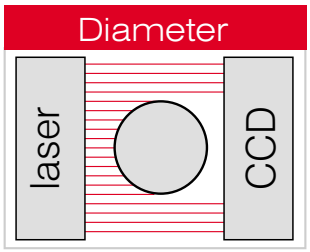
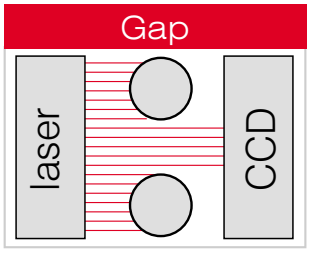
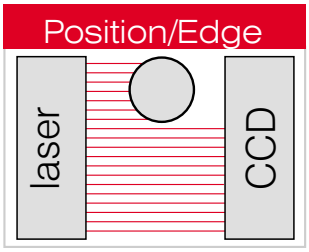
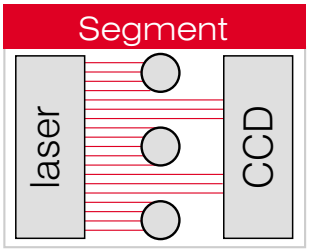
optoCONTROL is used in the production and quality assurance of non-contacting and highly dynamic measurements on running conveyors, extrusion lines, drawing processes, on machines and in automated production.



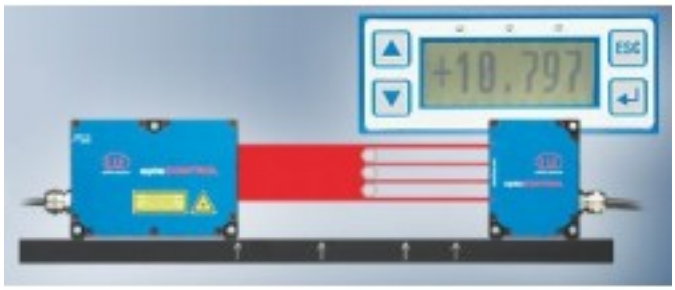






optoCONTROL is a laser-based measurement system with an integral high resolution CCD camera for the measurement of dimension. The high sampling rate, outstanding accuracy and excellent resolution in conjunction with a value based system price define a new level of performance for the non-contact measurement and inspection of moving products in the production line.

optoCONTROL measures dimension of a target or the position of an edge by using the shadow principle. The data obtained with a selection of various measurement programs is output via analog and digital interfaces.



Dynamic and precise measurement

optoCONTROL consists of a sensor unit and a controller. A parallel light curtain is produced using a laser light source. The CCD camera in the receiver section measures with high accuracy the target contour formed by the shadow. The sensor unit is controlled and evaluated by an intelligent controller with graphical display for the operation and measurement function.

Technical data

Model	ODC 2500-35
Measuring range	34 mm (1.34 inch)
Distance lightsource - CCD-camera	300 mm (150-700 mm) 11.81 inch (5.91-28 inch)
Linearity [1]	< ±10 µm
Resolution [2]	≤ 1 µm
Repeatibility	≤ 3 µm
Smallest diameter (detectable target)	0.5 mm (0.02 inch)
Sampling rate	2.3 kHz
Light source	semiconductor laser 670 nm, class II
Dimensions (W x H x D) receiver	54 x 72 x 28 mm (2.13 x 2.83 x 1.10 inch)
Dimensions (W x H x D) laser light source	110 x 72 x 28 mm (4.33 x 2.83 x 1.10 inch)
Dimensions (W x H x D) controller (without connectors)	191 x 110 x 45 mm (7.52 x 4.33 x 1.77 inch)
Cable	2 m (option: extension 3 m / 8 m)
Protection class receiver / light source	IP 64
Protection class controller	IP 40
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Output	analog 0 ... 10V, range -10 to + 10V digital RS 232 or RS 422 1 x error, 2 x limit, 2 x warning LC-Display, 3 x LED sync-out
Input	sync-in zero laser on/off
Supply voltage	24 Vdc (± 15 %)
Measuring programs	diameter, gap, position / edge, segment

[1] Valid for distance of the target to receiver 20 ±5 mm

[2] If output via integral LC-Display

Included components

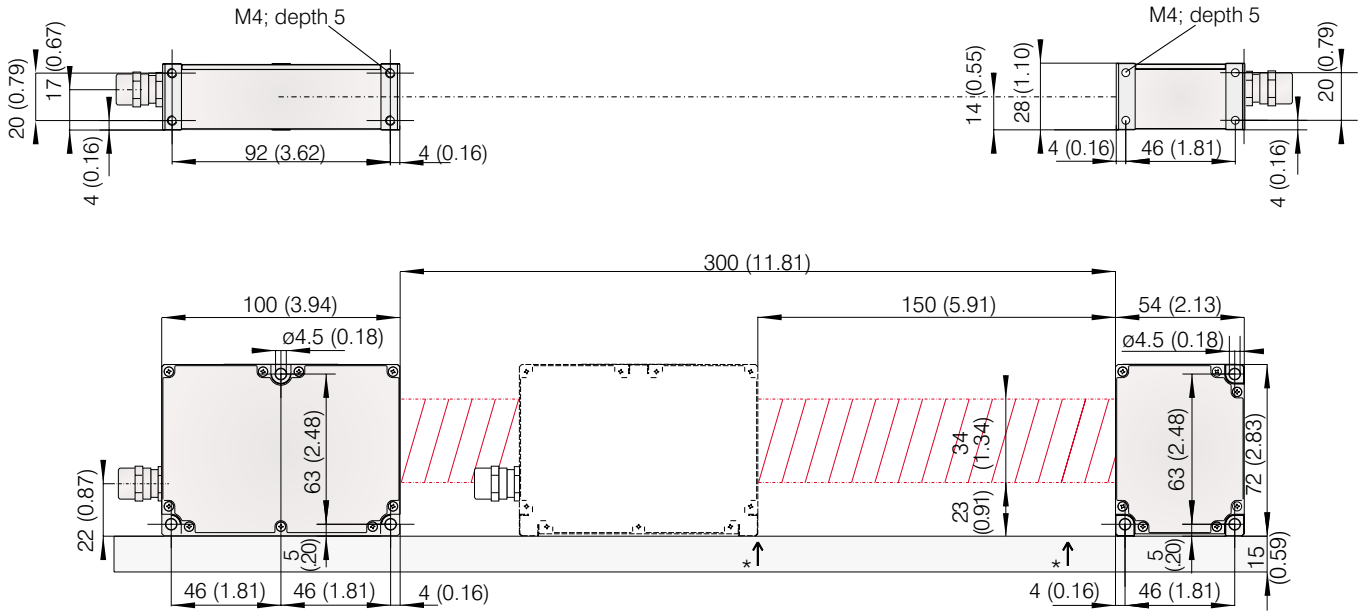
sensor unit (laser light source + receiver), controller, mounting rail, head cables (2m) and mating connectors

Accessories

Cable extension	CE 1800-3	Extension for camera, 3m long
	CE 2500-3	Extension for light source, 3m long
Interface-Card	IF 2004	Interface card RS422 for 1 to 4 sensors ODC2500 series or 1 to 3 sensors ODC2500 series plus 1 encoder-input
Signal-output cable	SCA 2500-3	for analog or switching output
Supply cable	PC 2500-3 or PC 2500-10	

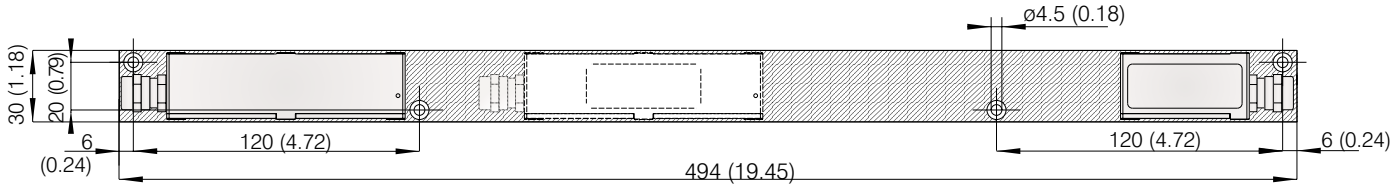
laser light source

CCD-camera (receiver)

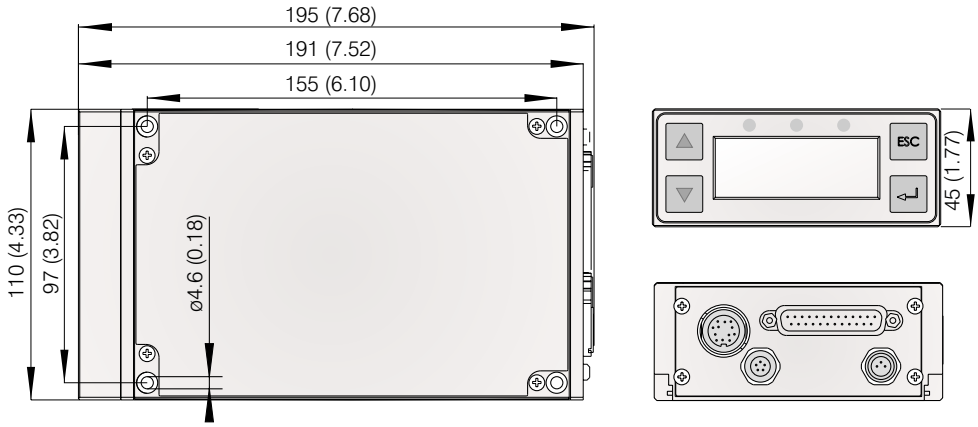


*calibrated target-positions are marked by arrows on mounting bar

mounting bar



controller



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