

OTP Series Data Sheet



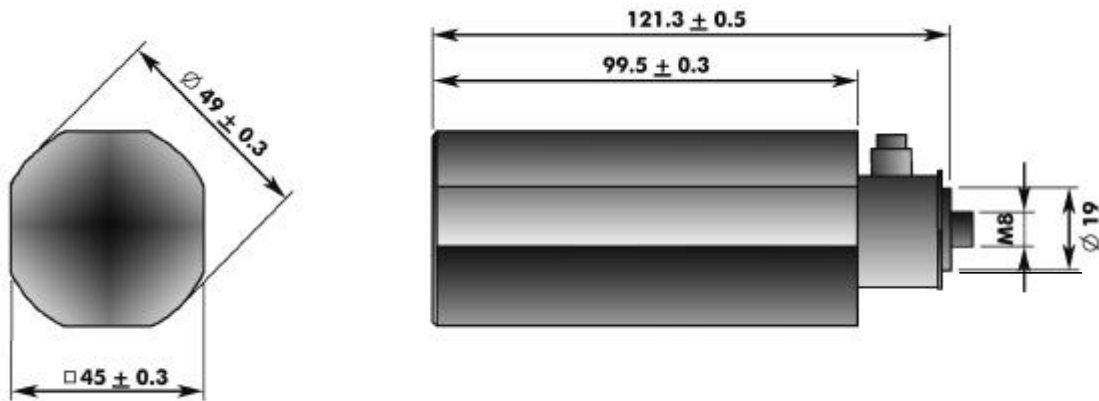
OTP Series

This series of optical sensors has been designed specifically to function in the same manner as a tactile probe. Users can change sensor heads depending on the task and benefit from the advantages of non-contact sensors where and whenever necessary.

- Reverse trigger function permits accurate edge detection by simply sweeping over the surface.
- mechanical & electrical plug compatibility to both Zeiss and Renishaw joints ensures rapid tool exchange.

Specific Technical Data

	OTP6-LD	OTP6F-LD	OTP6M-LD	OTP6B-LD	OTP6BF-LD	OTP6BM-LD
Trigger distance	36,5 mm			69 mm		
Detection range	± 4 mm			± 10 mm		
Repeatability *1)	± 1 µm			± 3 µm		
Local measurement uncertainty *2)	± 25 µm			± 70 µm		
Triangulation angle at trigger point	22°			13°		
Laser spot size	50 µm x 70 µm			100 µm x 100 µm		



General Technical Data

All models	OTP6-LD	OTP6F-LD	OTP6M-LD	OTP6B-LD	OTP6BF-LD	OTP6BM-LD
Working temperature range	+18°C to +22°C					
Operating temperature range	+10°C to +40°C					
Storage temperature range	-10°C to +70°C					
Air humidity	max. 80% (non-condensing)					
Warm-up time	0 min					
Threshold angle for detection of inclined surfaces *3)	80°					
Threshold angle for precision specifications	60°					
Laser safety	Class II (wavelength 680 nm, P ₀ = 0,5 mW)					
Response delay	typically 35 µs					
Speed of adaption to reflection	< 1 ms					
Mech./elec. interface	M8 thread or Renishaw PAA joint					
Weight	260 g					

*1) multiple distance measurement in fixed position on a measured surface (electrical noise)

*2) multiple distance measurement at various positions within 3x the laser beam diameter on a level measured surface (optical noise), figures dependent upon surface

*3) dependent on measured surface, figures based on reference surface

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