



ZEISS ROTOS light

Specifications

Version: 2020-11



Seeing beyond

ZEISS ROTOS light

Surface finish sensor for CMMs

Rotating axes (A- & B-Axis)

Movement	Continuous, no steps
Tilting Range	160°
Tilting Speed	40°/s
Rotating Range	380°
Rotating Speed	160°/s
Positioning accuracy	± 0.1° (all axes)

Profile Measurement (Z-Axis)

Resolution (digital)	0.05 nm
Measuring range	± 500 µm
Measurement System	skidless
Tip Radius	2 µm (5 µm available)
Cone angle	90° (60° available)
Recommended application	Ra > 0,2 µm
Accuracy (of nominal Ra) ¹⁾	± 5 % + 30 nm

Tracing driver (X-Axis)

Measuring range	up to 15 mm
Resolution (digital)	0.1 nm
Measurement speed	0.05 - 0.5 mm/s

Filtering (ZEISS CALYPSO Option Roughness)

Standard Cut-off Lengths (λ_c)	0,08 mm, 0,25 mm, 0,8 mm, 2,5 mm
Standard Short Cut-off Lengths (λ_s)	2.5 µm, 8 µm (auto)
Available Filters	Gaussian (ISO 16610-21), Robust Gaussian (ISO 16610-31), Valley suppressing (ISO 13565-1)

Surface profile parameters (ZEISS CALYPSO Option Roughness)

Primary Parameters	ISO 4287	Pa, Pq, Pt, Pz, Pp, Pv, Psk, Pku, PΔq, Pc, PSm, PΔc, PPc
Waviness Parameters	ISO 4287 VDA 2007	Wa, Wq, Wt, Wz, Wp, Wv, Wsk, Wku, WΔq, Wc, WSm, Wmr, Wmr(c), WΔc, WPC WDc, WDt, WDSm
Roughness Parameters	ISO 4287 ISO 8503 DBN 31007 VDA 2006	Ra, Rq, Rt, Rz, Rp, Rv, Rsk, Rku, RΔq, Rc, RSm, Rmr, Rm(c), RΔc, RPC, R _{y5} (RzDIN) R3z Rmax
Material Ratio Parameters	ISO 13565-1	Rk, Rpk, Rvk, Mr1, Mr2, A1, A2
Motif Parameters	ISO 12085	AR, R, Rx, AW, W, Wx, Wte

Requirements

Software	ZEISS CALYPSO 6.6 SP2 (2018) and later releases
CMM Configuration	ZEISS PRISMO, ZEISS ACCURA II with C99 (not older than 3 years) ZEISS MMZ, ZEISS MICURA, ZEISS CONTURA on request with VAST gold, VAST XT gold

¹⁾ Type C gage (Ra = 0.5 or 3.0 µm with filter lc = 0.8 mm according ISO 3274, tracing speed = 0.5 mm/s) according to ISO 5436-1 available for check (different accuracy depending on machine size and environment vibrations possible).

Dimensions

See Sketch below	Height: 335 mm, Width: 72 mm
Weight	545 g
Minimal Required Surface Length	traversing length + 4 mm (+ additional 4 mm on steps)
Smallest Hole Diameter	>13 mm (30 mm hole depth)
Smallest Hole Diameter (whole Sensor)	>75 mm (350 mm hole depth, only vertical)
Minimal Stylus Changer Rack Height	335 mm (see below)
Charger Cable Length	12 m

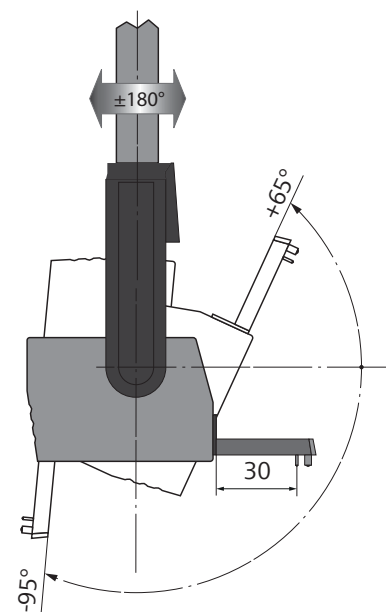
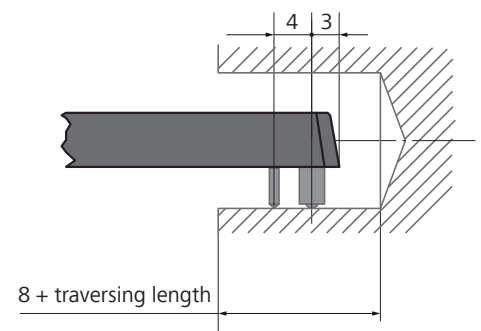
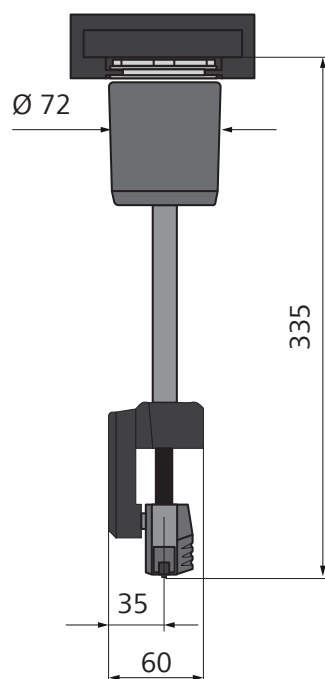
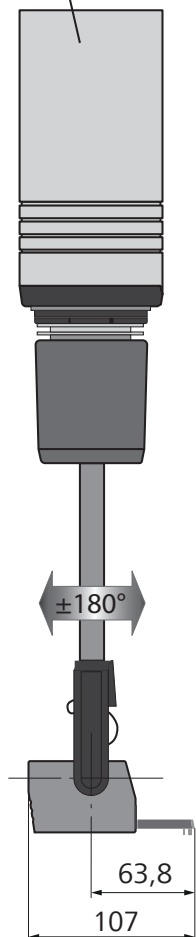
Battery

Technology	NiMH
Nominal Voltage	9.6 V (Voltage Range: 8-12 V)
Automatic Switch Off	30 min after sensor inactivity (no bluetooth connection)

Bluetooth

Version	3.0 (IEEE 802.15.1)
Max. Output Power	+10 dBm
Power-Class	Class 1
R&TTE Class	Class 1
RF frequency	2400-2483.5 MHz
Number of Channels	79

ZEISS VAST gold



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