



ZEISS MICURA

Specifications

Stand: 2020-11



Seeing beyond

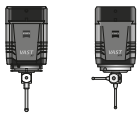
System description

Type according to ISO 10360-1:2000	Moving bridge CMM		
Operating mode	motorized / CNC		
Sensor mounts	Fixed installation		
Software	ZEISS CALYPSO, ZEISS GEAR PRO, ZEISS HOLOS		
Travel speed	motorized	Axes	0 to 70 mm/s
	CNC	Vector	max. 492 mm/s
Acceleration		Vector	max. 1969 mm/s ²
Scanning speed			max. 125 mm/s

Sensors and accuracy

The functionality of the device and its specifications are only achievable when using original accessories by ZEISS. The specified parameters are observed in the application of the internal test instructions for acceptance testing and in the use of the released standards in accordance with the ISO 10360 series.

ZEISS VAST XT gold ¹⁾ ZEISS VAST XTR gold ¹⁾



Active scanning and multi-point sensor.

Including ZEISS VAST navigator.
Optional ZEISS VAST performacne to increase measurement performance.
Configurable measuring force (50-1000 mN) for data acquisition.

ZEISS VAST XT gold: stylus: max. length = 500 mm, max. weight = 500 g incl. stylus adapter, min. stylus tip diameter = 0.3 mm.

ZEISS VAST XTR gold: stylus: max. length = 350 mm, max. weight = 500 g incl. stylus adapter, min. stylus tip diameter = 0.5 mm.

		ZEISS VAST XT gold and ZEISS VAST XTR gold	
Length measurement error ²⁾ MPE complies with ISO 10360-2:2009	E0	in μm	0.7 + L/400
	E150	in μm	0.9 + L/400
Repeatability range of E0 MPL complies with ISO 10360-2:2009	R0	in μm	0.55
Scanning error MPE complies with ISO 10360-4:2000	THP	in μm	0.9
Required measuring time MPT	τ	in s	40
Form measurement error ³⁾ MPE for roundness complies with ISO 12181	RONt (MZCI)	in μm	0.8
Single stylus form probing error MPE complies with ISO 10360-5:2010	PFTU	in μm	0.8
Multi-stylus form probing error MPE complies with ISO 10360-5:2010	PFTM ⁴⁾	in μm	2.3 ZEISS VAST XT gold 2.7 ZEISS VAST XTR gold
Multi-stylus dimension probing error MPE complies with ISO 10360-5:2010	PSTM ⁴⁾	in μm	0.6 ZEISS VAST XT gold 0.7 ZEISS VAST XTR gold
Multi-stylus location probing error MPL complies with ISO 10360-5:2010	PLTM ⁴⁾	in μm	1.6 ZEISS VAST XTR gold 1.7 ZEISS VAST XTR gold

Technical features

Length measuring system	Photoelectric reflected light system, 0.1 μm resolution
Controller	Type: ZEISS C99, protection type: IP22
Accessories	Standard: temperature compensation system for workpieces. Optional: Multi-sensor Rack for storage of stylus systems.

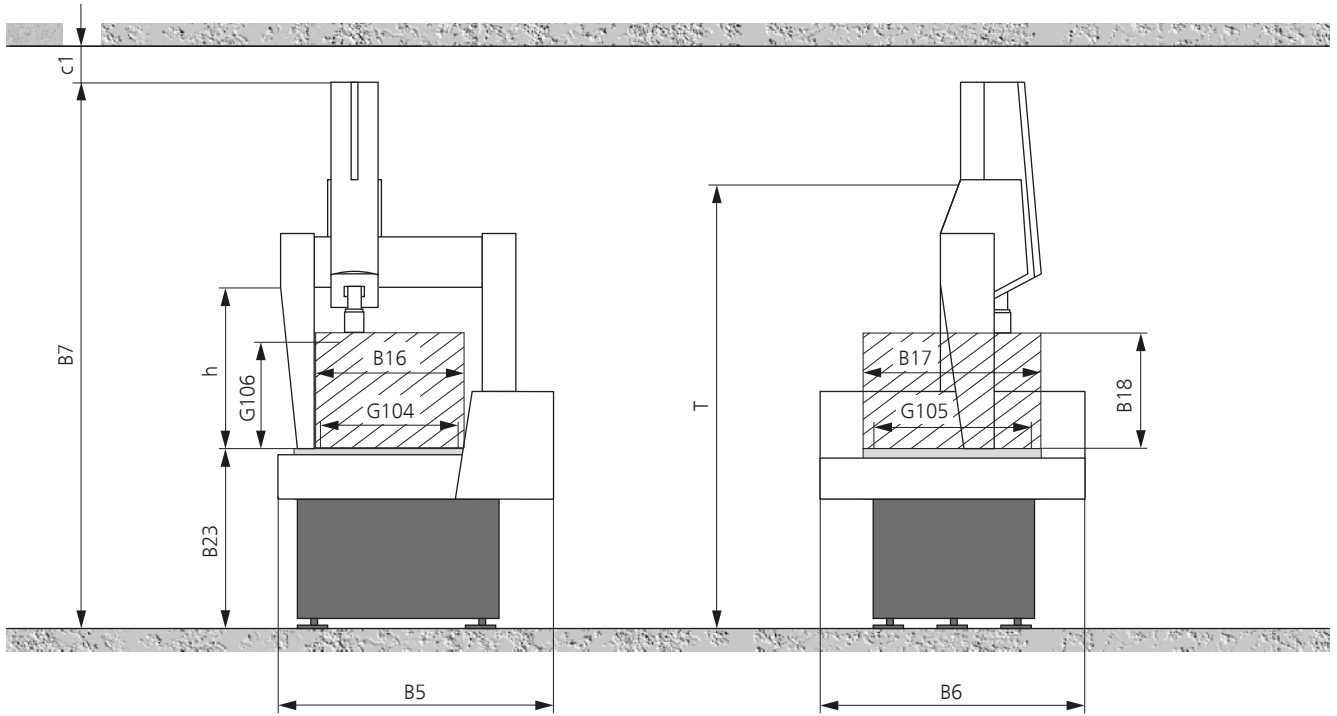
1) Acceptance test with stylus length of 60 mm and tip diameter of 8 mm. Also valid for other styli. \emptyset 3 x 33 mm, \emptyset 5 x 50 mm, \emptyset 8 x 114 mm and \emptyset 12 x 92 mm were tested with ZEISS PRISMO (in conjunction with the reference standards belonging to the CMM).

2) Measuring length L in mm.

3) Roundness in Scanning Mode for $V_{\text{scan}} = 5 \text{ mm/s}$, filter 50 UPR.

4) Measuring location near the qualification position to document sensor properties.

ZEISS MICURA	Dimensions in mm													Weight in kg	
	Measuring range			Overall CMM dimensions			Working range (Max. workpiece size)				Table height	As- sembly space	Trans- port height ¹⁾	Max. work- piece	Mea- suring machine
	X axis	Y axis	Z axis	Length	Width	Height	Length	Width	Height	Height	Height	Height	Height		
	G104	G105	G106	B5	B6	B7	B16	B17	B18	h	B23	c1	T		
5/5/5	500	500	500	1348	1364	2600	710	841	616	745	850	≥200	2350	280	950
5/7/5	500	700	500	1348	1564	2600	710	1041	616	745	850	≥200	2350	280	1065



Note: the given dimensions and weights are approximate values. Subject to change. Dimensioning based on DIN 4000-167:2009.

1) Transport height of the secured machine group from machine base (including 250 mm if transportation uses a secured pallet).

Environmental requirements ¹⁾

Humidity	30 % - 60 % (without condensation)	
Measuring reference temperature	20 °C - 22 °C	
Temperature fluctuations	per day	1.0 K/d
	per hour	0.5 K/h
	spatial	0.5 K/m
Floor vibrations	ZEISS MICURA is equipped with passive vibration damping (limits upon request). If requested, we can provide assistance for vibration studies.	

Requirements for operational readiness

Humidity	30 % - 60 % (without condensation)
Ambient temperature	17 °C - 35 °C
Electrical power rating	ZEISS C99L 1/N/PE 100 - 240 V VAC ~ (±10 %); 50-60 Hz (±3.5 %), Power consumption: max. 800 VA, Typical power consumption: 200 W Amount of heat generated: max. 2880 kJ/h
Compressed air supply	Supply pressure min. 6 bar, max. 8 bar, pre-cleaned. Max. consumption: 110 NI/min. Air quality complies with ISO 8573 part 1: class 4

Approvals

Directives	ZEISS MICURA complies with EC machine directive 2006/42/EC, the EMC directive 2014/30/EU and the RoHS directive 2011/65/EU.
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Disposal	ZEISS products and packaging returned to us are disposed of in accordance with applicable legal provisions.
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Certifications/accreditations

Quality management system	ISO 9001:2015 VDA 6, parts 4, 3. Version 2017
Environmental management system	ISO 14001:2015
Occupational health & safety management systems	BS OHSAS 18001:2007
Accredited	ISO/IEC 17025:2005

1) To ensure specified accuracies.

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