

GLOBAL S

Touch+ model

Version 2023-2



GLOBAL S Touch+: Specifications

	05.YY.05	07.07.05 07.10.07	09.YY.08	12.YY.10
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C)	1.5 + L/333	1.5 + L/333	1.5 + L/333	2.0 + L/333
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C)	1.7 + L/222	1.7 + L/250	1.8 + L/250	2.4 + L/200
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C) ²⁾	1.9 + L/143	1.5 + L/263	1.5 + L/256	2.0 + L/250
MPL(R0)	1.4	1.4	1.5	1.9
MPE(PFTU)	1.5	1.5	1.5	2.0

Max. Permissible error MPE (µm) and Max. Permissible limit MPL (µm) according to ISO 10360-2:2009:

- Volumetric length measuring error: MPE(E0/E150)

- Repeatability range: MPL(R0)

Max. Permissible error MPE (µm) according to ISO 10360-5:2010:

- Single stylus form error: MPE(PFTU)

Probe configuration:

- HP-THDe: Standard force module, stylus length 10 mm, tip diameter 4 mm

¹⁾ MPE(E0/E150) specifications are to be formally understood as MPE(E0/E150)* for the case where non-normal CTE material calibrated test lengths are used. Length unit measure (L) in mm.

²⁾ For shop floor packages only.

GLOBAL S Touch+: Throughput and dynamics

	Max. 3D Speed	Max. 3D Acceleration ⁴⁾
Dynamics ³⁾		
from GLOBAL S 05.YY.05 to 09.YY.08	510 mm/s	1700 mm/s ²
for GLOBAL S 12.YY.10	430 mm/s	1000 mm/s ²

³⁾ Dynamics reduction may apply to meet specific customer and/or local safety requirements.

⁴⁾ Acceleration reduction may apply with pneumatic dampers configuration

GLOBAL S Touch+: Temperature specifications

	Lab temperature	Extended temperature	Shop floor temperature
Ambient temperature	18 °C ÷ 22 °C	16 °C ÷ 26 °C	15 °C ÷ 30 °C
Max. air temperature variation	1 °C/h - 2 °C/24h	1 °C/h - 5 °C/24h	1 °C/h - 5 °C/24h 2 °C/h - 10 °C/24h ⁵⁾
Max. gradient in space	1 °C/m	1 °C/m	1 °C/m

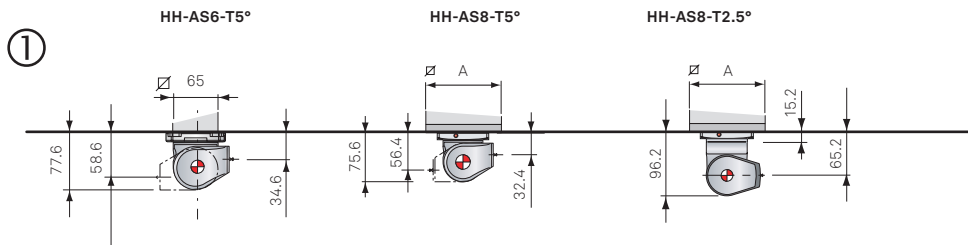
⁵⁾ Accuracy specifications for this temperature range are available on request.

Probe heads and sensors



Technical characteristics	HH-AS-T5° indexable probe head	HH-AS8-T2.5° indexable probe head
Angular rotation	A axis: +90° / -115° B axis: ±180°	A axis: ±105° B axis: ±180°
Angular rotation step	5°	2.5°
Max. applied torque	0.6 Nm	1.4 Nm
Max. extensions length	300 mm	450 mm

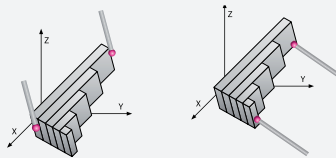
Probe heads overall dimensions and compatibility matrix



Cross sections	A mm	HH-AS6-T 5°/HH-AS8-T 5°	HH-AS8-T 2.5°
05.YY.05	65	✓	✗
07.07.05 - 07.10.07	80	✓	✓
09.YY.08	88	✓	✓
12.YY.10	88	✓	✓

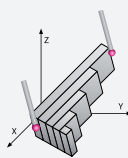
Performance verification

MPE(E0) (E150) : maximum permissible error of length measurement



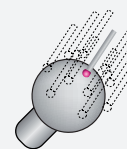
5 gauges have to be measured 3 times with one probing at each end, in 7 different directions. All measuring results must be within MPE(E0).
5 length gauges have to be measured 3 times in the YZ- or XZ plane with opposite styli, mounted 150 mm off the Z spindle axis. All measuring results must be within MPE(E150).

MPL(R0) : maximum permissible limit of the repeatability range



Extreme value of the repeatability range of the length measurement error, calculated by three repeated measurements on each size for a total of 35 values. The 35 repeatability range results must be within MPL(R0).

MPE(PFTU) : maximum permissible single stylus form error



A precision sphere has to be measured with 25 probings. PFTU is the range of all radii.
The range of all radii must be within MPE(PFTU).



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