

# Technisches Datenblatt AMPG-S

## Technical datasheet AMPG-S



### Betriebsbedingungen / operating condition

Betriebstemperaturbereich / operating temperature range: - 10° C – 40° C  
Schwingungen in Richtung der Koordinatenachsen / vibrations in axis of coordinates direction: < 80 Hz; 20 mm/s<sup>2</sup>  
Umgebungstemperatur / environmental temperature: 20° C ± 2° C; 0,5 K/h; 2 K/24 h; 0,3 K/m  
Feuchtigkeit / humidity: 5 % - 95 %, nicht kondensierend / not condensing

### Elektrischer Anschluss / electrical connection

Spannung (CE konform) / voltage (CE conform): 85 V – 245 VAC; 50 – 60 Hz ; 600 Watt

### Druckluftanschluss<sup>1)</sup> / compressed air supply

<sup>1)</sup>nur AMPG mit Feststellbremse / AMPG with fixing brake only: ca. 6 bar; 60 NI/Std. / app. 6 bar; 60 NI/h

### Tastsysteme / trigger systems

- Starre Tastkugel; Tastspitze (Tastkugel jeder verfügbaren Größe) / rigid sphere or tip
- Renishaw Taster TP 20 / Renishaw trigger TP 20
- Lasertaster schaltend / laser trigger switching
- Laser-Scankopf / laserscanner
- Rohrmessgabel / tube measuring fork

### Elektronik / electronic

zulässige Winkelbeschleunigung / allowed angle acceleration: (55-2000 Hz) < 100 ms/s<sup>2</sup>  
EN 60068-2-6

- hoch auflösende optische Drehgeber / high resolution optical rotary encoders
- integrierte Maus optional / integrated mouse optional
- Controller Box mit Zählerkarten; optional 7 Achsen / Controller box with digital display unit, 7 axes optional
- Schnittstellen zur Datenübertragung / interfaces for data transmission
- elektrischer Handschalter / electric hand switch
- Notebook oder Stand Alone PC / Notebook or stand-alone PC
- Drucker optional / printer optional
- manuell geführter Messgelenkarm / manual articulated measuring arm
- 5 - 7 Freiheitsgrade / 5 – 7 axes of freedom
- Kohlefaserrohre CFK / carbon fibre tubes CFK
- Interner Gewichtsausgleich, patentiert / internal counterweight, patented
- Pneumatische Feststellbremse (optional), patentiert / Pneumatic fixing break, patented

### Mechanik / mechanic

### Aufstellmöglichkeiten / positioning possibilities

- Dreifußstativ (motorisch oder manuell) / tripod (motor-driven or manual)
- Magnetfuß / magnetic base
- Aufnahmeplatte / support plate
- Adapter zur Erweiterung einer ZETT MESS Messmaschine zu einer 9-Achsen-Messmaschine, patentiert / adapter to extend a ZETT MESS measuring machine to a 9-axes-measuring machine, patented
- 7. Achse (Linearführung) / 7th axis (linear bearing)
- 7. Achse (Luftlagerführung) / 7th axis (air bearing)

Genauigkeit / Accuracy	AMPG 15 S	AMPG 18 S	AMPG 24 S	AMPG 30 S	AMPG 36 S	AMPG 40 S	AMPG 45 S	AMPG 50 S
Messbereich / Measuring range	1500 mm	1800 mm	2400 mm	3000 mm	3600 mm	4000 mm	4500 mm	5000 mm
Einzelpunkt Kugel / Single point sphere	+/- 0,015 mm	+/- 0,020 mm	+/- 0,028 mm	+/- 0,048 mm	+/- 0,073 mm	+/- 0,089 mm	+/- 0,109 mm	+/- 0,119 mm
Einzelpunkt Kegel / Single point cone	+/- 0,026 mm	+/- 0,034 mm	+/- 0,037 mm	+/- 0,061 mm	+/- 0,085 mm	+/- 0,100 mm	+/- 0,123 mm	+/- 0,158 mm
Volumetrisch / Volumetric	+/- 0,039 mm	+/- 0,041 mm	+/- 0,050 mm	+/- 0,078 mm	+/- 0,102 mm	+/- 0,127 mm	+/- 0,152 mm	+/- 0,175 mm

#### VDI/VDE 2617 Bl. 9 Single point

The testing of the probing error is carried out by probing five points at a reference sphere in five different stylus directions. From each group of points the Gaussian regression sphere is calculated. The maximum deviation between the calculated regression sphere and the reference sphere results the probing error for the sphere location.

#### VDI/VDE 2617 page 9 Volumetric

The testing of error of indication for size measurement, also called volumetric maximum deviation, is carried out by comparing probed points with a material standard of size. The standard of size has to be probed in seven different directions. Thereby, within each orientation of the standard, five lengths are measured, in which every length is measured three times. Thus the sum of probed points is at least 105. At each measured point the deviation between the point and the reference of the calibrated standard of size is calculated.

#### ANSI B89.4.22 Single point

The testing of the probing error is carried out by positioning the stylus within a cone, wherein measuring points are taken in different directions. Each measured point is compared to a corresponding given value, the mean value and the deviation are calculated. Thereby results the maximum area, divided by two.

#### ANSI B89.4.22 Volumetric

The testing of error of indication for size measurement is carried out by a plurality of measured lengths of a calibrated material standard of size in different positions and orientations within the whole measuring range. Out of the comparison of the measured values and the calibrated given values of the standard of size the maximum deviation is calculated.

- Deutsche Version – bitte wenden -