Miniature Accelerometers

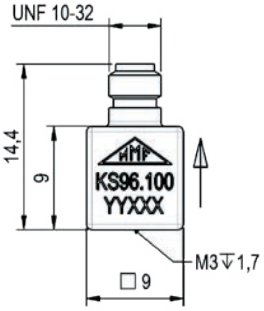
NEU NEW

KS96B10
KS96B100
KS97B10
KS97B100

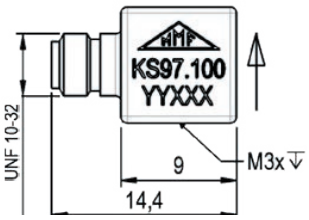
Properties

- IEPE precision accelerometers with shear ceramics
- Well suited for modal and structural analysis
- Easy mounting by cubic case with M3 thread
- Versions with vertical and horizontal outputs
- TEDS

KS96B10/100

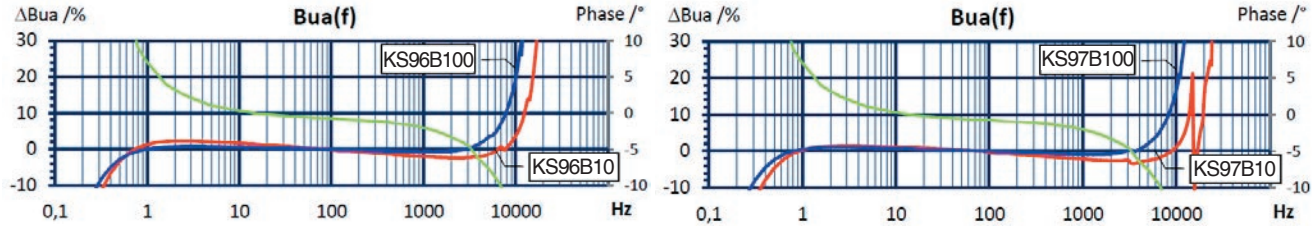


KS97B10/100

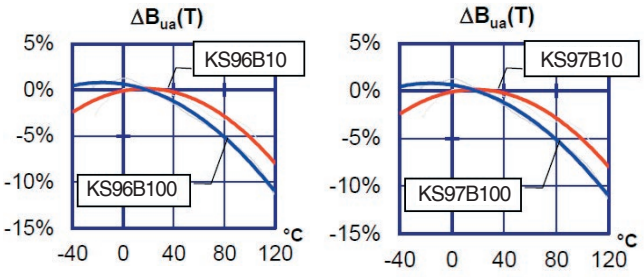


			KS96B10	KS96B100	KS97B10	KS97B100	
Ausgang • Output			IEPE	IEPE	IEPE	IEPE	
Piezosystem • Piezo design			Scherprinzip • Shear design				
Spannungsübertragungsfaktor • Voltage sensitivity		B_{ua}	10 ± 20 %	100 ± 20 %	10 ± 20 %	100 ± 20 %	mV/g
Messbereich • Range		a_+ / a_-	± 500	± 60	± 500	± 60	g
Bruchbeschleunigung • Destruction limit		a_{max}	8000	8000	8000	8000	g
Linearer Frequenzbereich • Linear frequency range		$f_{3\,dB}$ $f_{10\,\%}$ $f_{5\,\%}$	0,2-18k 0,4-12k 0,6-10,5k	0,15-13k 0,3-7,5k 0,45-6k	0,2-18k 0,4-12k 0,6-10,5k	0,15-13k 0,3-7,5k 0,45-6k	Hz Hz Hz
Resonanzfrequenz • Resonant frequency		f_r	>46 (+25 dB)	>25 (+25 dB)	>46 (+25 dB)	>25 (+25 dB)	kHz
Phasengang • Phase response		±5°	1,8-3,3k	1,4-3,3k	1,8-3,3k	1,4-3,3k	Hz
Querrichtungsfaktor • Transverse sensitivity		Γ_{90MAX}	< 5	< 5	< 5	< 5	%
Eigenrauschen (Effektivwert; 0,5 Hz - 20 kHz) • Residual noise (RMS; 0.5 Hz - 20 kHz)		$a_{n\ wide\ band}$	< 3000	< 400	< 3000	< 400	µg
Rauschdichten • Noise densities	0,1 Hz 1 Hz 10 Hz 100 Hz	$a_{n\,1}$ $a_{n\,2}$ $a_{n\,3}$ $a_{n\,4}$	200 80 30 8	30 8 3 0,8	200 80 30 8	30 8 3 0,8	µg/√Hz µg/√Hz µg/√Hz µg/√Hz
Nichtlinearität im Messbereich • Non-linearity for full range		$_{THD}$	2	2	2	2	%
Konstantstromversorgung • Constant current supply		I_{CONST}	2 .. 20	2 .. 20	2 .. 20	2 .. 20	mA
Arbeitspunktspannung bei 25 °C • Output bias voltage at 25 °C Änderung bei T_{min}/T_{max} • Deviation for T_{min}/T_{max}		U_{BIAS}	12 ..14,5 ± 10	12 ..14,5 ± 10	12 ..14,5 ± 10	12 ..14,5 ± 10	V %
Ausgangsimpedanz • Output impedance	I_{CONST} = 4 mA	r_{OUT}	<100	<100	<100	<100	Ω
Elektronisches Datenblatt (TEDS) • Electronic data sheet (TEDS)			IEEE 1451.4; Template 25 (DS2431)				
Verhalten gegenüber Umgebungseinflüssen • Environmental characteristics							
Arbeitstemperaturbereich • Operating temperature range		T_{min}/T_{max}	-40 / 120	-40 / 120	-40 / 120	-40 / 120	°C
Temperaturkoeffizient • Temperature coefficient	-40 .. 0 °C 0 .. 40 °C 40 .. 80 °C 80 .. 120 °C	$TK(B_{ua})$	0,03 ±0,00 -0,04 -0,08	-0,03 -0,06 -0,08 -0,11	0,03 ±0,00 -0,04 -0,08	-0,03 -0,06 -0,08 -0,11	%/K
Temperatursprungempfindlichkeit • Temperature transient sensitivity		b_{aT}	1,5	0,3	1,5	0,3	ms^{-2}/K
Magnetfeldempfindlichkeit • Magnetic field sensitivity		b_{aB}	4,5	0,5	4,5	0,5	ms^{-2}/T
Mechanische Daten • Mechanical data							
Masse ohne Kabel • Weight without cable		m	2,4 / 0,085	3,2 / 0,11	2,4 / 0,085	3,2 / 0,11	g / oz
Gehäusematerial • Case material			Aluminiuum / Edelstahl • Aluminum / Stainless steel				
Kabelanschluss • Cable connection			axial	axial	radial	radial	
Buchse • Socket			UNF 10-32				
Befestigung • Mounting			M3-Bodengewinde • M3 thread in base				

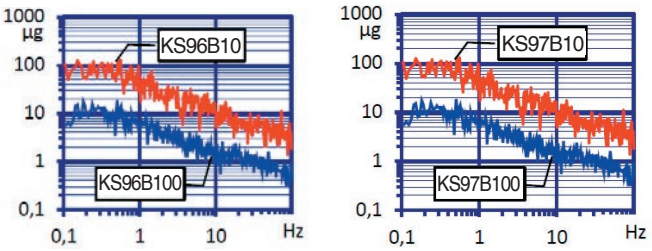
Typical Amplitude and Phase Response



Temperature Characteristics



Noise Characteristics



Suitable Accessories

Anschluss-zubehör	• **009-UNF-UNF-1,5**: Störarmes Kabel 2 x UNF 10-32; 1,5 m lang; 120 °C • **009-UNF-BNC-1,5**: Störarmes Kabel UNF 10-32 / BNC; 1,5 m lang; 120 °C • **010-UNF-BNC-5/10**: Störarmes UNF 10-32 / BNC; 5 / 10 m lang; 120 °C • **016**: Kupplung für 2 UNF 10-32-Stecker • **017**: Adapter UNF 10-32 / BNC (männlich) • **117**: Adapter UNF 10-32 / BNC (weiblich) • **025**: Adapter UNF 10-32 / TNC (männlich)
Connection accessories	• **009-UNF-UNF-1,5**: Low noise cable 2 x UNF 10-32; 1.5 m long; 120 °C • **009-UNF-BNC-1,5**: Low noise cable 2 x UNF 10-32 / BNC; 1.5 m long; 120 °C • **010-UNF-BNC-5/10**: Low noise cable UNF 10-32 / BNC; 5 / 10 m long; 120 °C • **016**: Coupler for 2 UNF 10-32 plugs • **017**: Adapter UNF 10-32 / BNC (male) • **117**: Adapter UNF 10-32 / BNC (female) • **025**: Adapter UNF 10-32 / TNC (male)
Befestigungs-zubehör	• **021:** Gewindestift M3 • **106**: Isolierflansch M3 • **129**: Isolierendes Klebepad M3 • **108:** Haftmagnet M3 • **038:** Sofortkleber
Mounting accessories	• **021:** Mounting stud M3 • **106**: Insulating flange M3 • **129**: Insulating adhesive pad M3 • **108:** Magnetic base M3 • **038:** Instant glue

Ordering Information

KS96Bxx/01, KS97Bxx/01:	Sensor with accessories kit including cable 009-UNF-BNC-1,5, mounting stud 021 adhesive wax 002, insulating flange 106, adhesive pad 129, magnetic base 108, instruction manual, data sheet
KS96Bxx; KS97Bxx:	Sensor with data sheet

Note: Our transducers can be supplied with an optional calibration certificate of DKD. Prices on demand.

Specifications subject to change without prior notice.

Edition: 12/19

AGT Absolute Gauge Technologies

Presented by: Absolute Gauge Technologies
sales@absolutegauge.com; www.absolutegauge.com,
Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008