

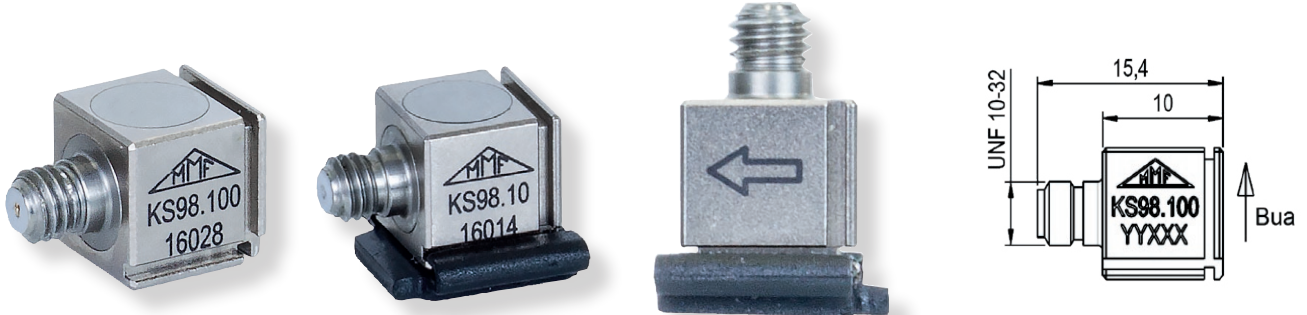
Miniature Accelerometers

1.6.4 Sensors

Properties

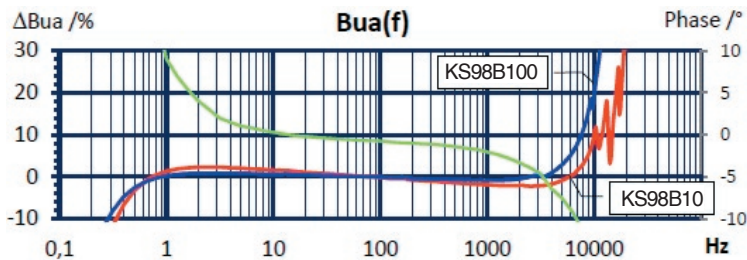
- IEPE precision accelerometers with shear ceramics
- Well suited for modal and structural analysis
- Clip mounting in 3 directions
- TEDS

KS98B10 KS98B100

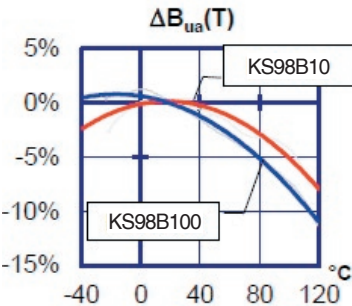


				KS98B10	KS98B100		
Output				IEPE	IEPE		
Piezo design				Scherprinzip • Shear design			
Voltage sensitivity		B _{ua}		10 ± 20 %	100 ± 20 %	mV/g	
Range		a ₊ / a ₋		± 500	± 60	g	
Destruction limit		a _{max}		8000	8000	g	
Linear frequency range (metal mounting clip)		f _{3 dB}		0,2-16k	0,15-11k	Hz	
		f _{10 %}		0,4-10k	0,3-7,5k	Hz	
		f _{5 %}		0,6-8k	0,45-5k	Hz	
Resonant frequency		f _r		>40 (+25 dB)	>24 (+25 dB)	kHz	
Phase response		±5°		1,8-3,3k	1,4-3,3k	Hz	
Transverse sensitivity		Γ _{90MAX}		< 5	< 5	%	
Residual noise (RMS; 0.5 Hz - 20 kHz) a _{n wide band}				< 3000	< 400	µg	
Noise densities		0,1 Hz	a _{n 1}	200	30	µg/√Hz	
		1 Hz	a _{n 2}	80	8	µg/√Hz	
		10 Hz	a _{n 3}	30	3	µg/√Hz	
		100 Hz	a _{n 4}	8	0,8	µg/√Hz	
Non-linearity for full range		THD		2	2	%	
Constant current supply		I _{CONST}		2 .. 20	2 .. 20	mA	
Output bias voltage at 25 °C		U _{BIAS}		12 .. 14,5	12 .. 14,5	V	
Deviation for T _{min} /T _{max}				± 10	± 10	%	
Output impedance		I _{CONST} = 4 mA	r _{OUT}	<100	<100	Ω	
Electronic data sheet (TEDS)				IEEE 1451.4; Template 25 (DS2431)			
Environmental characteristics							
Operating temperature range			Temperaturkoeffizient •	T _{min} /T _{max}	-40 / 120	-40 / 120	°C
Temperature coefficient		-40 .. 0 °C	TK(B _{ua})	0,03	-0,03	% / K	
		0 .. 40 °C		±0,00	-0,06		
		40 .. 80 °C		-0,04	-0,08		
		80 .. 120 °C		-0,08	-0,11		
Temperature transient sensitivity		b _{aT}		1,5	0,3	ms ⁻² /K	
Magnetic field sensitivity		b _{aB}		4,5	0,5	ms ⁻² /T	
Mechanical data							
Weight without cable		m		3,0 / 0,105	3,8 / 0,134	g / oz	
Case material				Aluminium / Edelstahl • Aluminum / Stainless steel			
Cable connection				radial	radial		
Socket				UNF 10-32			
Mounting				Plastik-Clip 1407, Kleben • Plastic clip 1407, Adhesive			

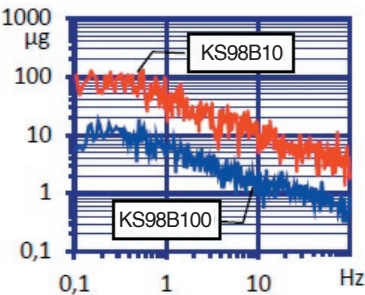
Typical Amplitude and Phase Response



Temperature Characteristics



Noise Characteristics



Suitable Accessories

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)
Mounting accessories	• 1407: Plastic mounting clip • 038: Instant glue

Ordering Information

KS98Bxx: Sensor with data sheet, plastic mounting clip 1407

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

