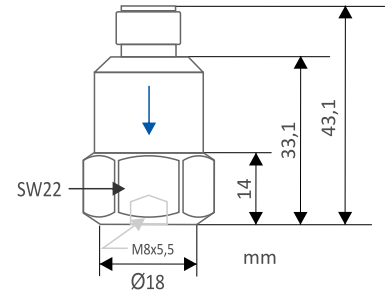


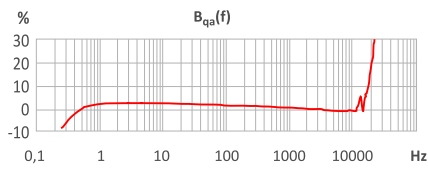
Properties

- Robust stainless steel housing IP68
- With insulated housing to prevent ground loops
- Double shielding for improved EMC protection
- Contains digital memory for sensor data (TEDS according to IEEE 1451.4; Template 25 m. DS2431)
- With M12 plug connection for easy installation with Replacement for obsolete MIL-C-5015 connectors
- Low temperature dependence

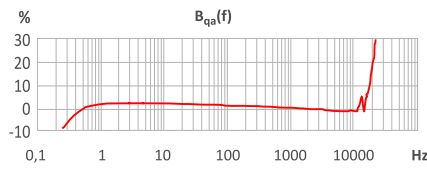


Technical data		500 mV/g	100 mV/g	10 mV/g	Unit	
Output		IEPE				
Piezo system		Shear principle				
Voltage transfer factor	B_{ua}	500 ± 5%	100 ± 5%	10 ± 5%	mV/g	
Measuring range	a	± 10	± 60	± 600	g	
Fracture acceleration	a_{max}	5000	5000	5000	g(pk)	
Linear frequency range	$f_{3\text{ dB}}$	0,3 .. 20k	0,2 .. 20k	0,2 .. 23k	Hz	
	$f_{10\%}$	0,6 .. 14k	0,4 .. 14k	0,4 .. 16k	Hz	
	$f_{5\%}$	0,8 .. 10k	0,5 .. 10k	0,5 .. 10k	Hz	
Resonant frequency	f_r	> 32 (25 dB)	> 32 (25 dB)	> 42 (25 dB)	kHz	
Transverse direction factor	Γ_{90max}	<5	<5	<5	%	
Intrinsic noise (effective value; 0.5 Hz - 20 kHz)		<160	<200	<1800	μg	
Noise densities	1 Hz	a_{n1}	25	30	300	$\mu\text{g}/\sqrt{\text{Hz}}$
	10 Hz	a_{n2}	7	8	80	$\mu\text{g}/\sqrt{\text{Hz}}$
	100 Hz	a_{n3}	1	1,5	12	$\mu\text{g}/\sqrt{\text{Hz}}$
	1000 Hz	a_{n4}	0,9	1	8	$\mu\text{g}/\sqrt{\text{Hz}}$
Constant current supply	I_{const}	2 .. 16	2 .. 16	2 .. 16	mA	
Operating point at $I_{const} = 4\text{mA}$	U_{BIAS}	12,5 .. 14	12,5 .. 14	12,5 .. 14	V	
Output impedance with $I_{const} = 4\text{mA}$	r_{OUT}	<80	<80	<80	Ω	
Behavior towards environmental influences						
Working temperature range	$T_{min/max}$	-40/120			°C	
Temperature jump sensitivity	b_{aT}	0,005	0,005	0,005	ms^{-2}/K	
Magnetic field sensitivity	b_{aB}	0,5	1	3,5	ms^{-2}/T	
Degree of protection		Ip68				
Mechanical data						
Ground without cable	m	61	61	58	g	
Housing material		Stainless steel				
Cable connection		axial				
Socket		M12 4-pin a-coded				
Fastening		M8				

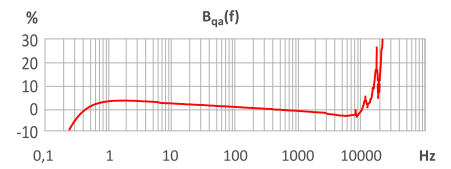
Typical frequency response



iCS84B.500

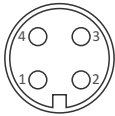


iCS84B.100



iCS84B.10

Connection



View into the sensor socket

PIN assignment

- 1: Signal ground
- 2: unused
- 3: Signal output
- 4: unused

Matching accessories

iCS84B.500/100/10	Type no.	Description	Length	Plug (IP67)
Connection accessories	i122-5	shielded cable 5mm	5m	Binder 713 angled, open end
	i123-5	shielded cable 5mm	5m	Binder 713 straight, open end
	i120-5	shielded cable 5mm	5m	Binder 713 angled, BNC
	i121-5	shielded cable 5mm	5m	Binder 713 straight, BNC
Mounting accessories	i502	M8 grub screw		
	i516	Stainless steel adhesive pad M8		
	i565	Thread adapter M8/M5		
	i532	Holding magnet M5		
	i552	Triaxial fastening cube M8		

Order information

Order code	Description
iCS84B.500	Transducer with label
iCS84B.100	
iCS84B.10	