Crash test accelerometer

Description

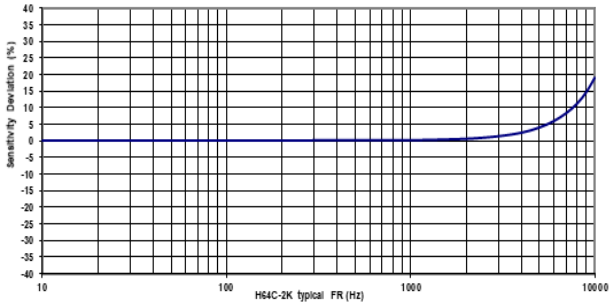
Model **H64C** accelerometer is based on a latest piezo-resistive MEMS sensing element which offers exceptional dynamic range and stability. This unit features a full bridge output configuration with a compensated temperature range from 0 to +50º C. Model **H64C** accelerometer has a standard crosstalk accuracy of <3%, optional of <1% transverse sensitivity calibration. Advance MEMS structure provides outstanding shock survivability, a flat amplitude and phase response up to 7kHz. Model **H64C** is compliant with SAE J211 standards for anthropomorphic dummy instrumentation. Model **H64C** adopts a strong and reliable structure, which greatly reduces the damage probability of cable joints in wiring and crash, it had been widely used in the testing of auto research laboratories and 3rd party verification factories.

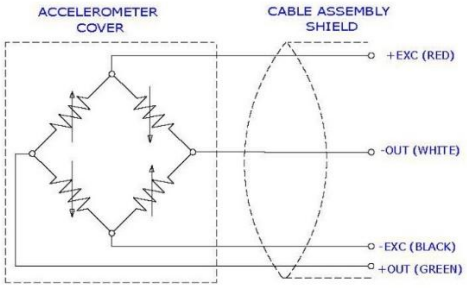
Features

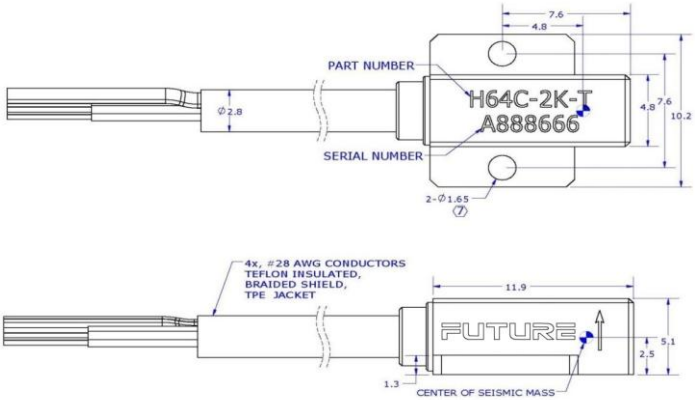
- SAE J211 comply
- DC response
- 6000 g full scale
- Shock, low & high frequency
- 10K g shock survivability
- 2-10Vdc Excitation

Application

- Auto crash test
- Shock test
- Anthropomorphic dummy







H64C Accelerometer

Specification

All values are typical at +24°C (+75°F), 100Hz, and 10Vdc excitation unless otherwise stated.

DASH No.	-005K	-01K	-02K	-05K	-2K	-6K	Units
Dynamic Range	±50	±100	±200	±500	±2000	±6000	g
Sensitivity	2	0.9	0.9	0.4	0.15	0.1	mV/g
Frequency Response ±2%	0-400	0-500	0-800	0-1200	0-3000	0-3000	Hz
Frequency Response ±5%	0-1000	0-1200	0-2000	0-3000	0-5000	0-5000	Hz
Frequency Response ±1dB	0-1400	0-1500	0-2800	0-4200	0-7000	0-7000	Hz
Phase Response ±5°	0-300	0-400	0-500	0-1000	0-2000	0-2000	Hz
Resonant Frequency	4000	6000	8000	15000	26000	26000	Hz
Damping Ratio	0.5	0.5	0.5	0.3	0.05	0.05	
Shock Limit	10000	10000	10000	10000	10000	10000	g

PARAMETERS	VALUE	UNITS
Zero Acceleration Output (<±20 by option)	<±25	mV
Transverse Sensitivity (<1% by option)	<3	%
Non-Linearity	≤±0.7	%Reading
Thermal Zero Shift, 0-50°C (32-122°F)	±0.04 (±0.02)	%FSO/°C (%FSO/°F)
Thermal Sensitivity Shift, 0-50°C (32-122°F)	±0.1 (±0.06)	%/°C (%/°F)
Zero point output repeatability	≤0.2	g
Excitation Voltage	2 to 10	Vdc
Insulation Resistance (@100Vdc)	>100	MΩ
Input Impedance	2400 to 4800	Ω
Output Impedance	2400 to 4800	Ω
Operating Temperature	-40 to +121 (-40 to +250)	°C (°F)
Humidity	Epoxy Sealed	
Weight (Cable Not Included)	1	Grams
Mounting Torque	3 (0.3)	lb-in (Nm)

Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0495	#0-80x1/8 socket head cap screws	2pcs included
PJ0048	LEMO FGG-1B-307 connector	Optional
MB0016	Single axial mounting adaptor	Optional
PM0140	Tri-axial mounting adaptor	Optional
IN-01	Bridge piezo-resistive signal amplifier	Optional
IN-3062	8 channels data acquisition system	Optional
PM0496	M1.6x4.0 socket head cap screws	Optional

H64C Accelerometer

Measurement configuration

Sensor	LEMO connector	Data acquisition	Computer
			

Ordering information

H64C	-	2K	-	8	C1	-	T
Model	-	Range	-	Cable length	Connector	-	Transverse Sensitivity
H64C	-	0.05K=50g 0.1K=100g 0.2K=200g 0.5K=500g 2K=2000g 6K=6000g	-	6=6 meters 8=8 meters 9=9 meters	C*=Connector options Blank=No Connector	-	T=<1% T2=<2% Blank=<3% Z=<20mv

Connector options

C1	C2	C3	C4	
LEMO FGG-1B-307 Dallas Chip: DS2401	**LEMO FGG-1B-307**	**LEMO FGG-1B-307 Dallas Chip: DS2401**	**LEMO FGG-1B-307**	**Blank**
Pin1=N/C Pin2=Dallas pin2 Pin3=+OUT (Green) Pin4=+EXC (Red) Pin5=-EXC (Black) Pin6=-OUT (White) Pin7=N/C Housing=Dallas pin1=Shield	Pin1=N/C Pin2=N/C Pin3=+OUT (Green) Pin4=+EXC (Red) Pin5=-EXC (Black) Pin6=-OUT (White) Pin7=N/C Housing=Shield	Pin1=N/C Pin2=Dallas pin2 Pin3=+OUT (Green) Pin4=+EXC (Red) Pin5=-EXC (Black) Pin6=-OUT (White) Pin7=Housing=Dallas pin1=Shield	Pin1=-OUT (White) Pin2=-EXC (Black) Pin3=+EXC (Red) Pin4=+OUT (Green) Pin5= N/C Pin6=N/C Pin7= N/C Housing=Shield	No connector