innRecord - Model comparison

	DR4-03R	DR4-03E	DR4-04E
			
Battery	4000 mAh	4000 mAh	250 mAh
Storage	16Gb	16Gb	8Gb
Case	Aluminum 7075	Aluminum 7075	Polycarbonate
Accelerometers	100g – Piezoresistive 40g – Digital Capacitive	100g – Piezoelectric 40g – Digital Capacitive	100g – Piezoelectric 40g – Digital Capacitive
GPS	Yes	Yes	No
Microphone	Yes	Yes	No

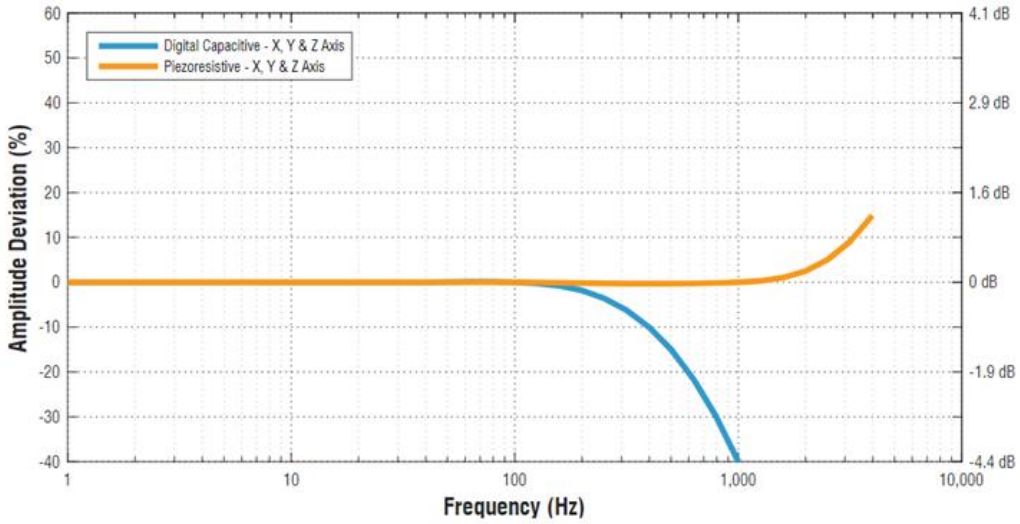
The main difference between these two models is the battery capacity, the storage, the accelerometer type (E vs R), and the GPS signal.

With the DR4-03 family, the user can make longer recordings and store more data. In addition, it has GPS positioning to know where the data recorder was during recording and a microphone to record audio.

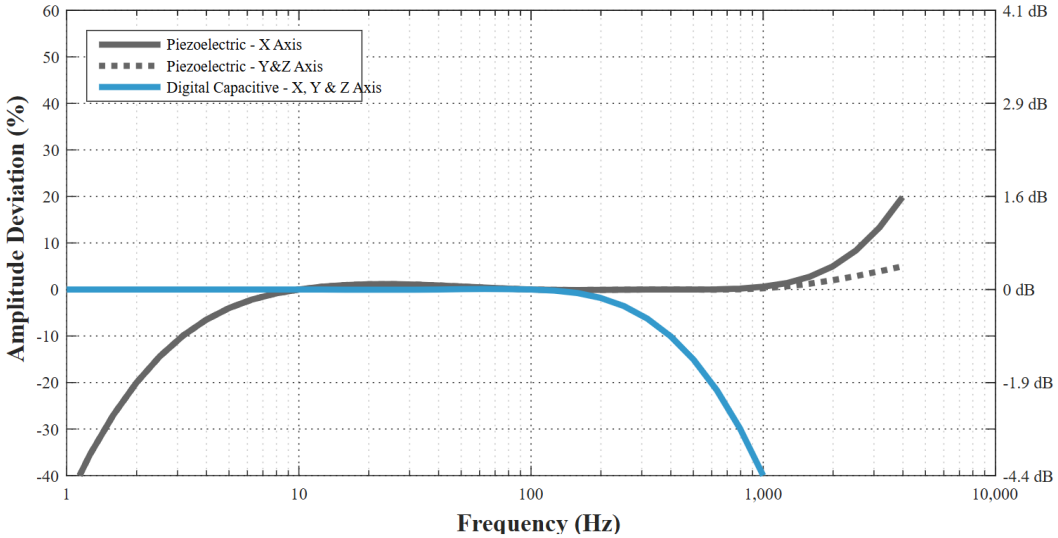
Regarding the accelerometer, the DR4-03R uses the piezoresistive type as the main accelerometer, which does not have attenuation at low frequencies. The DR4-04E has a piezoelectric accelerometer as the main one. Both devices use the same sensor (digital capacitive) as the secondary accelerometer.

Accelerometer frequency response

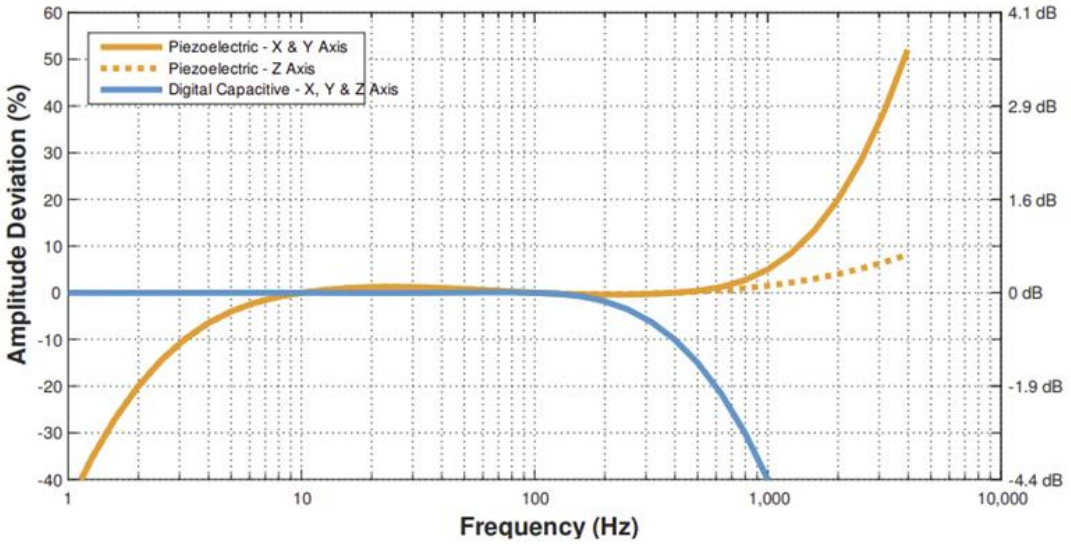
DR4-03R



DR4-03E



DR4-04E


Piezoelectric - X & Y Axis
Piezoelectric - Z Axis
Digital Capacitive - X, Y & Z Axis
Amplitude Deviation (%)
Frequency (Hz)
60
50
40
30
20
10
0
-10
-20
-30
-40
1
10
100
1,000
10,000
4.1 dB
2.9 dB
1.6 dB
0 dB
-1.9 dB
-4.4 dB

Application	DR4-04E	BOTH	DR4-03R
Static Acceleration (0 Hz, 1 g) Gravity, Sensor Orientation		✓	
G- Force (0 Hz, <25 g) Rocket, Centrifugal, Aircraft, Human Motion, Distribution cycle		✓	
Seismic (<1 Hz, <1 g) Earthquake, Waves, Bridges		✓	
Low Frequency Vibration (<5 Hz, <25 g) Robotics		✓	
Transportation Standard Testing (1 - 300 Hz) ISTA, ISO		✓	
General Vibration (5 Hz to 500 Hz, <25 g) Electric Motor, Car Suspension		✓	
High Frequency Vibration (>500 Hz, <25 g) Gear Noise Analysis, Turbine Monitoring		✓	
General Shock (<100 Hz, <100 g) General Testing, Shock Absorber Testing			✓