

## Compact Quartz Angular Rate Sensors on Board Type

Type: **EWTS82**□□□□

This angular rate sensor utilizes CORIOLIS force generated by a vibrating tuning fork. This sensor consists of sensing and driving elements, tuning fork driving circuit and the signal processing circuit. The tuning fork formed an electrode on the quartz tuning fork. A compact and reliable angular rate sensor has been realized.



### ■ Features

- Compact, Low-height 18.5 mm, Low-profile 10 mm
- Chassis installer's being possible
- 5 V operating voltage (Ratio-metric output)

### ■ Recommended Applications

- Detection of moving direction for car-navigation
- Motion control for various industrial equipment
- Multi navigation systems

### ■ Ratings

#### ● Electrical Characteristics

Operating Temperature Range	-40 °C to +85 °C
Operating Voltage Range	5±0.25 V
Zero Point Voltage (-40 °C to +80 °C)	2.5±0.4 V
Sensitivity (-40 °C to +80 °C)	25±2.5 mV/ (° ·s <sup>-1</sup> )
Frequency Response (7 Hz)	> -4 dB
Output Voltage Range	0.3 V to 4.7 V
Output Noise	< 10 m Vp-p

#### ● Environmental Characteristics

Low Temperature Operation	-40 °C for 72 h
High Temperature Operation	+85 °C for 120 h
Thermal Shock	-40 °C to +85 °C for 25 cycles
Heat and Damp Cycling Test	-10 °C to +60 °C at 90 % RH for 5 cycles
Life (Operating Durability)	2 Hz, 1×10 <sup>7</sup> cycles

■ Dimensions in mm (not to scale)

