**IMU Inertial Measurement Unit**

**Model BST IMU-M** six axes

### Features
- Anodized Aluminium Housing
- DC Response
- Damping 0.7
- Very low power consumption
- Low Mass

### Description
The new model BST IMU-M is a multi-canal sensor with three accelerometers based on capacitive technology and three Gyros which helps to connect the sensor on all data acquisition systems. The light weight and small size of the sensor makes it easy to mount it on difficult places for many test applications. Due to the anodized aluminium housing the mounting is easy with two screws M3. The sensor has 2m very high rugged, shielded and flexible PUR-cable.

As an option, we supply the sensor with connectors, TEDS and IP-67.

A calibration for the sensor is standard.

### Application
- Automotive
- Truck
- Wind Energy
- Geology
- Marin

### Dimensions
### Specification Accelerometer

<table>
<thead>
<tr>
<th>Range (g)</th>
<th>2</th>
<th>5</th>
<th>10</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity typ. (mV/g)</td>
<td>1000</td>
<td>400</td>
<td>200</td>
<td>80</td>
</tr>
<tr>
<td>Frequency response (Hz)</td>
<td>100</td>
<td>100</td>
<td>250</td>
<td>400</td>
</tr>
</tbody>
</table>

### Specification Gyro

<table>
<thead>
<tr>
<th>Range (°/S)</th>
<th>75</th>
<th>150</th>
<th>300</th>
<th>600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (mV/°/S)</td>
<td>26.7</td>
<td>13.3</td>
<td>6.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Frequency Response (Hz)</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

### Basic Specification

- **Supply voltage**: 7 to 28 VDC unregulated
- **Zero measurement output**: +/- 2500 mV +/- 200 mV Accelerometer, +/- 2500 mV +/- 200 mV Gyro
- **Thermal Shift Zero**: < +/- 0.04 % FSO (0° to 50° C)
- **Thermal Shift Span**: - 0.2 % /°C +/- 0.05 (0° to 50° C)
- **Power Consumption**: 10 mA / axis Gyro, 8 mA / axis Accelerometer
- **Non-Linearity**: < 1% of FSO
- **Transverse sensitivity**: 2% typ (5% max.)
- **Damping ratio**: 0.7 typ Accelerometer
- **Shock limit**: 1000 g
- **Operation Temperature**: -20° to 80° C
- **Material**: Aluminium, anodized
- **Dimensions**: 30.0 x 26.0 x 21.3 mm
- **Weight Housing**: 35 grams without cable, Option: IP67
- **Weight Cable**: 30 grams per meter
- **Cable**: 2m, 10 wires, shielded PUR, AWC 30

### Cable Code

- **Accelerometer**:
  - red = Supply +
  - black = Supply -
  - white = Signal X
  - yellow = Signal Y
  - green = Signal Z

- **Gyro**:
  - red / grey = Supply +
  - black / grey = Supply -
  - white/grey = Signal X
  - yellow/grey = Signal Y
  - green/grey = Signal Z

### Order information

- **BST IMU-M-005-300-2Z**
  - IMU-M = model name
  - 005 = Range 5g Accelerometer
  - 300 = Range 300°/S Gyro
  - 2 = 2m Cable
  - Z = no connector