Sensor for measuring acceleration.

Type**. MA82.1**

The MA82.1 is a precision MEMS type two-axis single-range vibration sensor. The built-in electronic amplifier in the sensor reduces the sensitivity to electromagnetic interference. The sensor output signal is proportional to the supply voltage, it should be supplied with stabilized voltage. The sensor has different versions of fasteners, neodymium magnet, internal or external thread. It is adapted to work indoors and outdoors. The sensor works with the systems AV32 and AL32, AL132.

Connections M12:

1 – OUT X (brown)

2 – OUT Y (white)

3 – Uz + 5.00V(blue)

4 – GNDA (black)

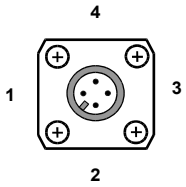

Fig. 1 View of the sensor.

Technical data

- Measurement ranges: 1g
- Sensitivity: 1V / 1g for Uz = 5V.
- Sensitivity temperature error: 0.01% / ° C
- Non-linearity: +/- 0.5% FS
- 3dB frequency response factory set[1]): F = 220Hz.
- Supply voltage: min 3.0V, max 6.0V.
- Supply current: <1.1mA
- Working temperature: -40 ° C to 70 ° C
- Maximum stroke level <10000g
- Weight about 45 grams.
- Tightness: IP67
- Dimensions: 20x20x50mm. (without magnet, screws)
- Connection plug: type M12 4PIN
- Connecting cable from 0.5m to 40m (ordered separately).

Mounting:

- [M20] neodymium magnet, diameter 20mm./22mm
- [S5] outer bolt from M4 to M8. Standard M5.
- External thread length L = 1.5M.
- [G5] internal thread from M4 to M8. Standard M5.
- Internal thread length L = 1.2M.

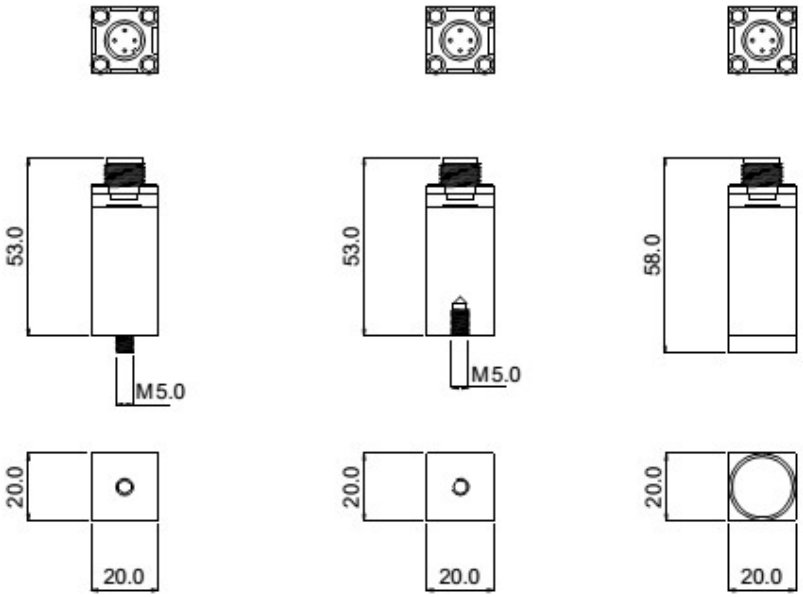

Fig. 4 Fixings and maximum dimensions of the sensor

[1]) Possibility of a different frequency of the internal filter in the range of 60-1500Hz.