# ACCELEROMETER TRANSDUCER

The M16 transducers seismically measure absolute machine vibrations by directly fastening the vibrating part on the supports. They provide an output signal directly proportional to the vibration of the point on which they are fastened. This signal can subsequently be processed by a measuring channel of a CEMB "T" or "N" series device.

The M16 transducers exploit the piezoelectric effect, i.e. the capability of a material to provide a difference of potential when mechanically stressed. In this application, a ceramic material subjected to acceleration generates an electrical signal proportional to the stress



### **TECHNICAL CHARACTERISTICS**

| Type of measurement                | <ul> <li>seismic (absolute vibrations)</li> </ul> |
|------------------------------------|---|
| Dynamic range                      | ■ ± 50 g-pk - 0.1 Hz ÷ 10.0 Khz (± 3 db)          |
| Direction of vibrations            | any   |
| Sensitivity                        | ■ 100 mV/g  |
| Transverse sensitivity             | ■ < 5 %   |
| Accuracy                           | ■ 0,0003 g-pk                                     |
| Resonance frequency                | ■ > 25 Khz  |
| Protection against shocks          | ■ ± 7000 g-pk                                     |
| Power supply                       | ■ 2 ÷ 20 mA - 18 ÷ 28 Vdc                         |
| Outlet impedance                   | < 100 ohm   |
| Temperature range                  | ■ - 48°C ÷ + 121°C                                |
| External casing material           | 316-L stainless steel                             |
| Mounting screws                    | ■ M16 x 1.5                                       |
| Weight                             | <b>2</b> 0 g                                      |
| Protection against external agents | CEI 70-1 standard, IP66 class                     |
| Connection                         | two wires shielded cable                          |
|                                    |   |

# Assembly

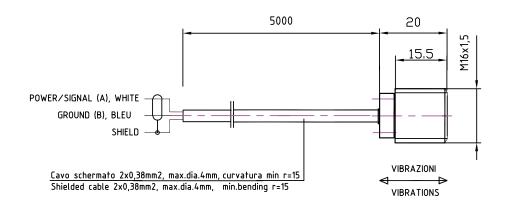
Maintenance

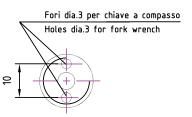
make a threaded hole M16 x 1.5 the surface to be tested

zero



## DIMENSIONS, FIXTURE AND CONNECTIONS







CEMB S.p.A. Via Risorgimento, 9 23826 MANDELLO DEL LARIO (LC) Italy www.cemb.com

