

ACCELEROMETER TRANSDUCER

M16

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	■ seismic (absolute vibrations)
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	■ 20 g
Protection against external agents	■ CEI 70-1 standard, IP66 class
Connection	■ two wires shielded cable
Assembly	■ make a threaded hole M16 x 1.5 the surface to be tested
Maintenance	■ zero

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DIMENSIONS, FIXTURE AND CONNECTIONS

