

ACCELEROMETER TRANSDUCER

TA-18/S

The TA-18/S 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 TA-18/S 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

GENERAL

Type of measurement	■ seismic (absolute vibration) piezoelectric
Sensitivity	■ 100 mV/g
Response in frequency	■ ± 3 dB 0,5 ÷ 15000 Hz ■ ± 10 % 2 ÷ 10000 Hz
Vibration direction	■ any
Dynamic range	■ ± 50 g pk
Transverse sensitivity	■ < 5 %

ELECTRICAL

Power supply	■ 2 ÷ 10 mA - 18 ÷ 30 Vdc
Output polarization voltage	■ 10-14 Vdc
Output impedance	■ < 100 ohm
Outer casing insulation	■ > 10 ⁸ ohm
Settling time	■ < 2,5 sec.

AMBIENT

Protection against shocks	■ 5000 g pk
Protection against external agents	■ IP68

PHYSICAL

Weight	■ 90 grammi
Resonance frequency	■ 23 kHz
Outer casing material	■ AISI 316-L stainless steel
Retaining screw threading	■ see "dimensions and threads"
Connection	■ MIL-C-5015 2-pin connector provided
Tightening torque	■ 2.7 to 6.8 Nm

TA-18/S

INFORMATION FOR THE ORDER:

A B
TA-18/S / □ / □

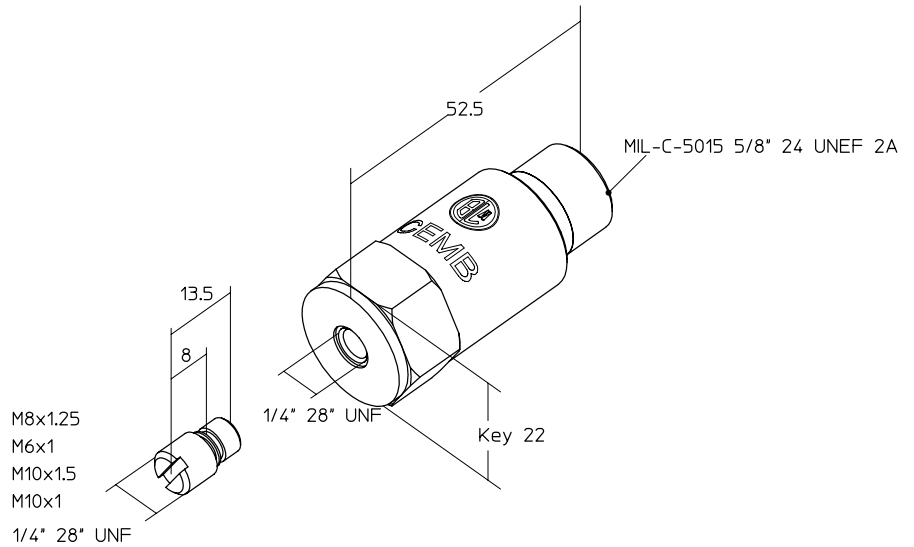
A: RETAINING SCREW

0	1/4" - 28 UNF
1	M8 X 1,25
2	M6 X 1
3	M10 X 1,5
4	M10 X 1
9	MULTI THREAD KIT (1/4"-28 UNF - M8X1.25 - M6X1 - M10X1,5)

B: TEMPERATURE RANGE

0	STANDARD	-50°C	+121°C
1	HIGH TEMPERATURE	-50°C	+150°C

DIMENSIONS AND THREADS



CABLES AND OPTIONAL ACCESSORIES

CABLES:



SHIELDED CABLE 2X1 STANDARD 80419-P
CBL / TA-18 / S / 0 / XX (length in meters)



SHIELDED CABLE ARMoured IN ETFE 87SEA7952
CBL / TA-18 / E / 0 / XX (length in meters)



SHIELDED CABLE 2X1 WITH METAL JACKET COVERED BY PVC 95743-P
CBL / TA-18 / A / 0 / XX (length in meters)

ONLY CONNECTORS:



2 PINS STRAIGHT (standard) 597023104



2 PINS 90° 597023108 + 59070352

TAGS:



PLASTIC TAG 040STR000



STAINLESS STEEL TAG 980710835



CEMB
BALANCING MACHINES

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



Vibration analysis division:
phone +39 0341 706111
fax +39 0341 706299
e-mail: stm@cemb.com