

# 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

- $\pm 3 \text{ dB}$  0,5 ÷ 15000 Hz
- $\pm 10 \%$  2 ÷ 10000 Hz

Vibration direction

- any

Dynamic range

- $\pm 50 \text{ g pk}$

Transverse sensitivity

- $< 5 \%$

### ELECTRICAL

Power supply

- 2 ÷ 10 mA - 18 ÷ 30 Vdc

Output polarization voltage

- 10-14 Vdc

Output impedance

- $< 100 \text{ ohm}$

Outer casing insulation

- $> 10^8 \text{ ohm}$

Settling time

- $< 2,5 \text{ sec.}$

### 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



**CEMB**  
BALANCING MACHINES

# TA-18/S

## INFORMATION FOR THE ORDER:

A B

TA-18/S /  /

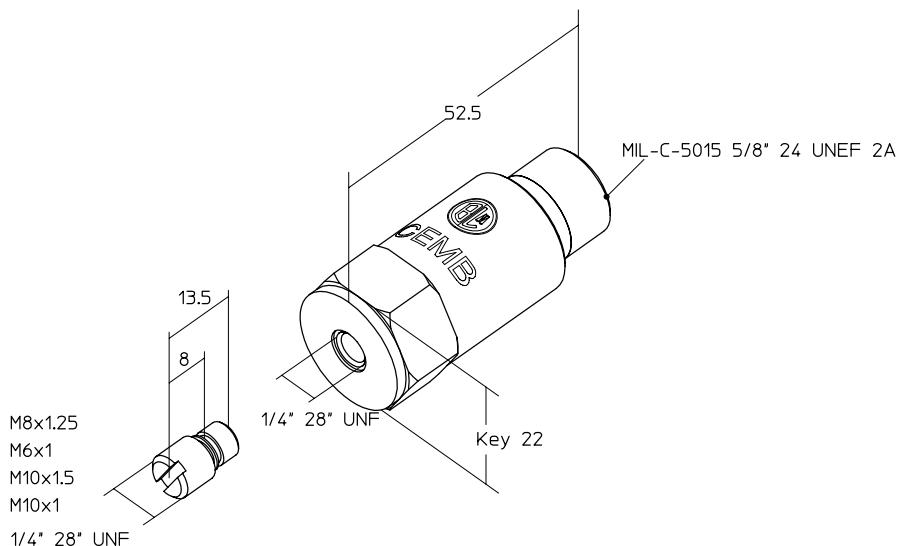
### A: RETAINING SCREW

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

CBL / TA-18 / S / 0 / XX (length in meters)

80419-P



#### SHIELDED CABLE ARMOURED IN ETFE

CBL / TA-18 / E / 0 / XX (length in meters)

87SEA7952



#### 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:

B5MAG10 CY002

#### PLASTIC TAG

040STR000

B5MAG10 CY002

#### STAINLESS STEEL TAG

980710835