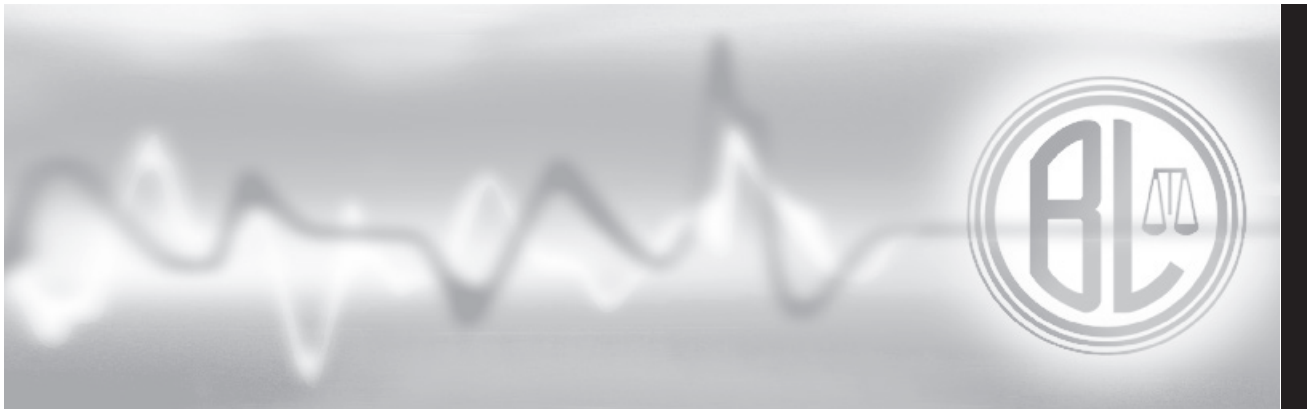
Vibration equipment division

SEISMIC VELOCITY TRANSDUCER
T1-40 STD

USE AND MAINTENANCE INSTRUCTION MANUAL



www.cemb.com

CEMB S.p.A.
Via Risorgimento, 9
23826 MANDELLO del LARIO (Lc) Italy

**Translation of the original instructions*

CEMB
BALANCING MACHINES

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1. FUNCTIONING



Transducer T1-40 STD serves for seismic measurement of the absolute vibrations of the machinery through direct fixing (omni-directional) on the supports of the vibrating part. It supplies an output signal directly proportional to the speed of vibration of the point to which it is fastened. Such signal should subsequently be processed by one of the measuring channel of a serial “T” processing unit.

2. OPERATING PRINCIPLE

A voltage proportional to the speed of vibration, is induced in a coil suspended seismically to the transducer body and immersed in a field generated by a permanent magnet rigidly fastened to the transducer body.

3. TECHNICAL SPECIFICATIONS

Type of measurement	Seismic (absolute vibrations)
Field of application	Amplitude: ± 1000 µm p.p. Frequency: 10 to 1000 Hz Direction of vibr.: any
Rated sensitivity	21,2 mV/mm/sec (RMS) at 25°C
Natural frequency	12 Hz
Damping coeff.	0.7
Cross sensitivity	< 7%
Output impedance	1 Kohm a 25°C
Power supply	None
Range of application	Temperature: -40°C ÷ +100°C Humidity: max 100% Outside: IP65 EN60529/10.91
External connections	Connector MS/MIL-C-5015, serial 3102/16, std.supplied
Casing material	Anodized aluminium
Weight	~ 0,3 Kg
Fastening	Screw M8x1.25 - L=16 mm
Maintenance	None
Drawings enclosed	17951 = Overall dimensions, layout and electrical connections

4. ASSEMBLY

THE OPERATIONS SHOULD BE PERFORMED POSSIBLY WITH THE MACHINE STATIONARY AND TAKING THE VERY GREATEST OF CARE SO AS NOT TO DAMAGE THE INTERNAL MECHANISMS OF THE TRANSDUCER.

- Drill, on the support to be measured, a hole M8x1.25 min. depth 17 mm being careful of its perpendicularity (if it is not possible to reach the depth of 17 mm provide spacers of suitable thickness between the support surface and transducer). The surface on which the transducer rests should be flat and smooth. It is advisable to apply a layer of silicone between the casing and resting surface.
- Screw the transducer into the M8x1.25 hole provided in point 1. Avoid knocks on the transducer. The use of a thread compound is advisable during tightening.
- Connect the transducer electrically to the measuring instrument using the plug-in connector (supplied as standard) following the instructions given in section 1.3.

WIRING OF THE EXTERNAL ELEMENTS (TRANSDUCERS, USERS, ETC.) MUST BE MADE WITH CABLES RESISTANT TO AGENTS ASSOCIATED WITH THE WORKPLACE (OILS, CORROSIVE ACIDS, TEMPERATURE, ETC.).

WHERE INDICATED, SHIELDED CABLE MUST BE USED. MAKE SURE THAT THE SHIELD IS CONNECTED TO THE EARTH (GROUND) (GND) AT JUST ONE OF THE CABLE ENDS (PREFERABLY ON THE INSTRUMENT SIDE).

THE ELECTRICAL CONDUCTORS MUST ALL HAVE A MINIMUM CROSS SECTION OF 1.0 MM² (1.5 MM² MIN. RECOMMENDED FOR THE TRANSDUCERS), MAX. POSSIBLE CROSS SECTION = 2.5 MM² FOR A DISTANCE OF APPROX. 800 METRES.

Refer to enclosed drawing nr. 17951.

