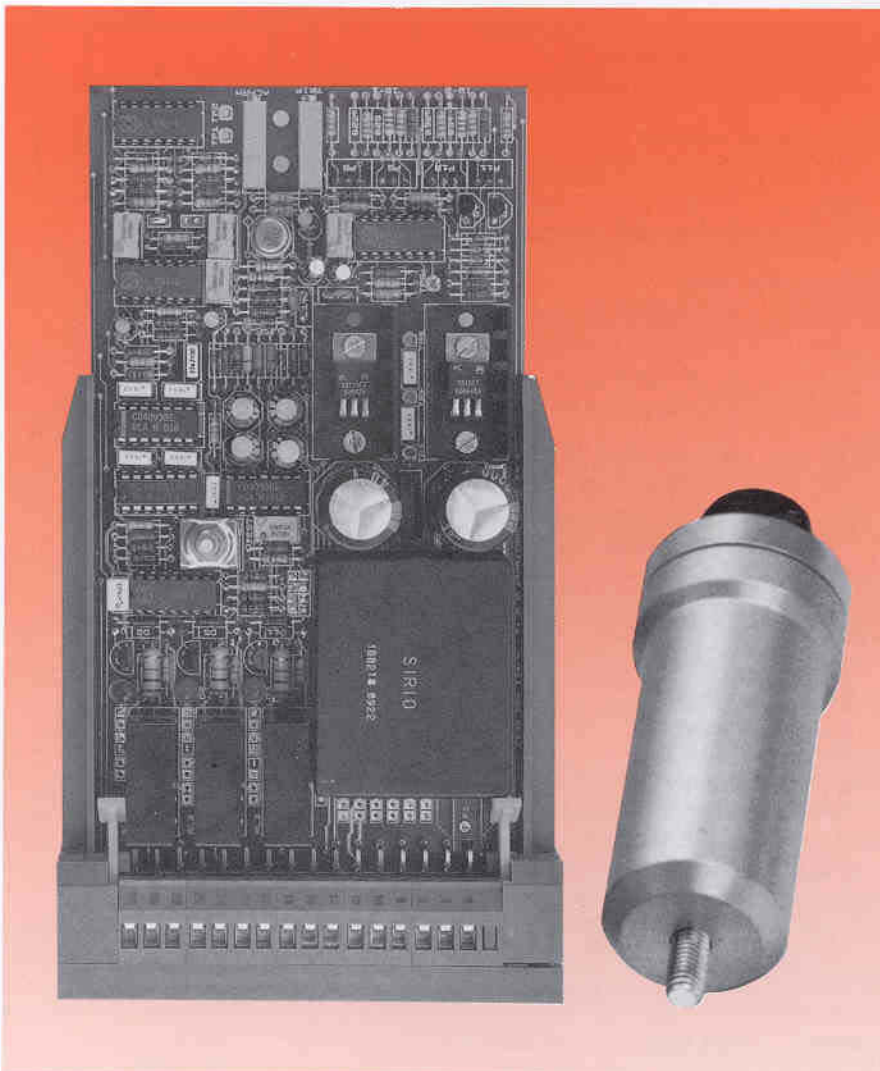


SINGLE CHANNEL VIBRATIONS CONTROL



FUNCTION

The T1-D equipment monitors the vibrations of rotating machines continuously, providing analog output proportional to the vibration, contacts that cut in when a predetermined alarm threshold is passed and a self-diagnosis contact. The electronic module for elaborat-

ing the signal generated by the speed-measuring transducer is contained in a practical circuit holder so that it is easy to use inside control panels.

MAIN CHARACTERISTICS

The instrument is made in such a way that it is immune to external

interference, which means that it is suitable for use in difficult environments, where contactors, DC converters, electro-valves etc. are normally present.

The equipment's main characteristics are its versatility (facility for predetermining the type of power supply, the measuring range the alarm threshold cut-in delay etc.) and its ease of interface, e.g. with a PC or a PLC.

The detection of the effective vibration velocity is in accordance with the latest ISO and VDI standards. For further information about the criterion used to evaluate the vibration detected, see CEMB technical booklet N° 24 "Machinery monitoring and supervisory instrumentation".

TECHNICAL CHARACTERISTICS

Composition:

- 1 Eurocard elaboration module inserted in a special pcb holder for fitting into a DIN guide with a terminal board (measuring 45x115x220 mm);
- 1 vibration velocity transducer.

Standard transducer (choose from)

- T1-40 (10 to 1,000 Hz in all directions)
- T1-40V (10 to 2,000 Hz vertical)
- T1-40BF (3 to 2,000 Hz horizontal)

Power supply:

- 220/110 V AC, 50/60 Hz.

Maximum power absorbed:

- 7,5 V A.

External connections:

- via terminal board (see connection diagram).

Analog output (measurements):

- 2 outputs, current or voltage.

INTEGRATED EQUIPMENT

Digital output (alarms):

- 2 independent SPDT contacts. The cut-in thresholds can be calibrated right across the range of measurements;
- 1 self-diagnosis SPDT contact.

Maximum linearity error:

- $\pm 2\%$.

Characteristics of the contacts:

- maximum voltage 300 V DC, 250 V AC;
- maximum current 5 A.

Settings that the user can make:

- power supply voltage 110 or 220 V AC;
- measurement range (one of three range selected in order)
- cut-in delay for alarms (0 to 1 secs; 0 to 10 secs);
- momentary or resettable alarms.

Settings that can be specified when ordering:

- digital outlets with relays normally energized;
- alarm threshold precalibrated;
- displacement measurements in μm .

Other characteristics:

- built-in test device;
- built-in calibration device.

Temperature range:

- -10°C to $+65^{\circ}\text{C}$.

Transducer protection against external agents:

- IP65 according to CEI 70-1 standards.

Electric fuse protection:

- 0.8 A - 250 V.

ORDERING INFORMATION

T1-D/ / / /

A: Outlet relay

CODE	TYPE OF RELAY
00	Normally deenergized (standard)
01	Normally energized

B: Dimension detected

CODE	DIMENSION
00	Effective velocity (standard)
01	Peak-to-peak displacement

C: Measuring range

CODE	MEASURING RANGE
00	0 to 10/0 to 20/0 to 50 mm/s (standard)
01	0 to 1/0 to 2/0 to 5 mm/s
02	0 to 100/0 to 200/0 to 500 μm p-p
03	Special: define your requirements

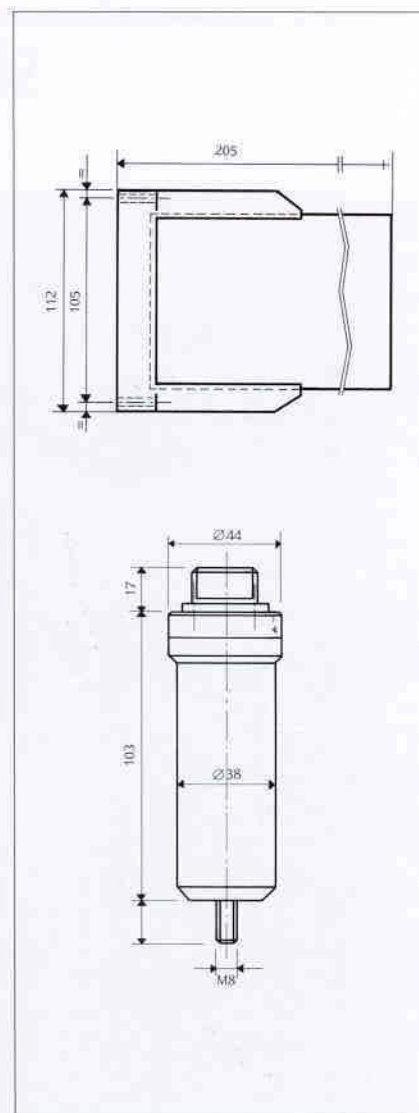
D: Type of transducer

CODE	TRANSDUCER
00	T1-40
01	T1-40BF
02	T1-40V

Example of an order:

T1-D/00/01/02/00: T1-D equipment with relay normally deenergized, detecting peak-to-peak displacement, with a field of measurement of 0 to 100/0 to 200/0 to 500 μm p-p and a T1-40 transducer.

DIMENSIONS DRAWING



CONNECTIONS DIAGRAM

