

T1-EV/2

Dual channel vibration monitoring unit

OPERATION

The T1-EV/2 equipment is designed for continuous monitoring of the vibrations on rotating machines by supplying analog outputs (for indicators or recorders) and alarm contacts enabled upon exceeding preset thresholds.

TYPICAL APPLICATIONS

Monitoring of vibrations and protection of machines provided with two supports by simplifying the instrument installation procedures. The die-cast aluminium dust-proof housing (with protection class IP65) allows the equipment to be installed close to the machine and in industrial environments with especially severe conditions from the point-of-view of the climate, aggressive agents and electromagnetic interference.

MAIN FEATURES

The T1-EV/2 system consists of a dual channel processor module in an aluminium case and two transducers installed on the supports of machine under test. The system features a series of settings which can be made by the customer (type of parameter measured, measuring range, mode of relay operation, etc.) or which can be specified when placing the order, thereby making the system flexible and easy-to-use for widely different applications. As regarding choice of parameter to be measured (displacement or velocity) and presetting of the alarm thresholds, please consult technical booklet CEMB Nr 24. "Machinery monitoring and supervisory instrumentation" which makes reference to the very latest ISO and VDI standards.



TECHNICAL FEATURES

Composition

- One dust-proof die-cast aluminium case
- two velocity transducers

Standard transducers (choose from:)

- T1-40 (10 to 1000 Hz in all directions)
- T1-40V / -38V (10 to 2000 Hz vertical)
- T1-40BF / -38BF (30 to 2000 Hz horizontal)
- T1-38 (15 to 2000 Hz in all directions)

Power supplies

- 110/220 VAC - 50/60 Hz - 7.5 VA
- 24 VDC - 8 W

External connections

- through terminal board internal to the case (max. conductor cross section 2.5 mm²)
- tapped holes (PG9 thread) are provided for cable outlet (see installation drawing)

Analog outputs (measurements)

- two analog current or voltage outputs regarding channel A and channel B.

Digital outputs

- two SPDT contacts for 1st alarm level regarding channel A and channel B
- two SPDT contact for 2nd alarm level regarding channel A and channel B
- one SPDT contact for self-diagnostics common to channel A and channel B



INTEGRATED EQUIPMENT

Contact characteristics

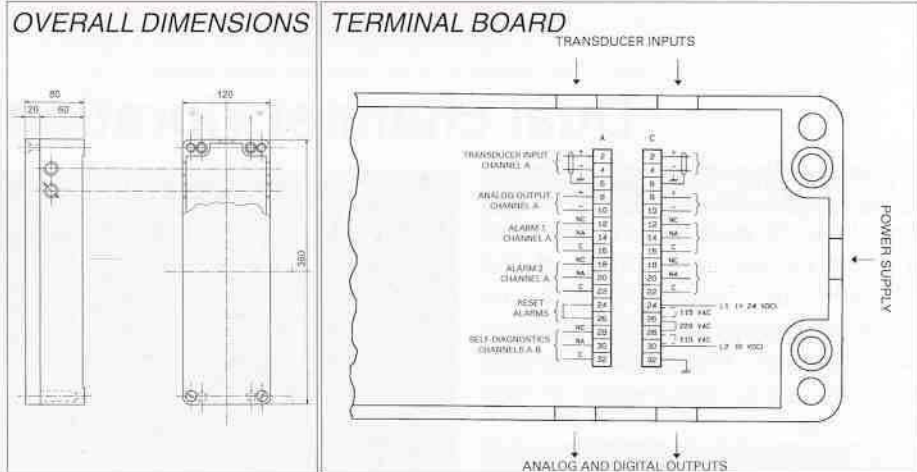
- max voltage 300 Vdc, 250 VAC
- max current 5A

Settings which can be made by the customer

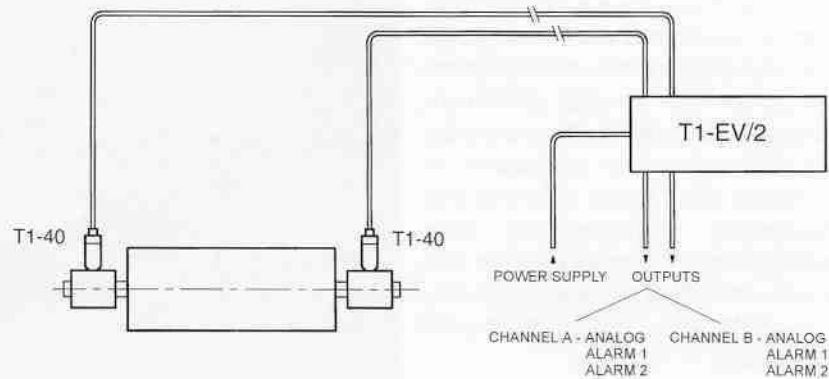
- Supply voltage 110 or 220 VAC
- Selection of measuring parameter (displacement or velocity)
- Measuring range (one of 3 ranges to be specified when ordering)
- Time delay for alarms (1 s or 10 s)
- Latching or non latching alarms

Settings which can be specified when placing the order

- AC or DC power supply
- Type of output signals
- Measuring range
- Alarm 1 relays (channel A and B) normally energized or de-energized
- Alarm 2 relays (channel A and B) normally energized or de-energized
- Or voting alarm 1 relays for channels A and B
- Or voting alarm 2 relays for channels A and B
- Temperature range: -10° C to +65° C



Application example



ORDERING DATA

A B C D E F G H

T1- EV/2 / □ / □ / □ / □ / □ / □ / □ / □

A : Power supply

| | |
|---|------------------------|
| 0 | 110/220 VAC - 50/60 Hz |
| 1 | 24 VDC |

B : Output signals

| | |
|---|-----------------------|
| 0 | 4 to 20 mA |
| 1 | 0 to 10 V |
| 2 | 0 to 20 mA |
| 3 | special to be defined |

C : Entity measured

| | |
|---|------------------|
| 0 | RMS velocity |
| 1 | displacement p-p |

D : Measuring range

| | |
|---|--|
| 0 | 0 to 10 mm/s; 0 to 20 mm/s; 0 to 50 mm/s |
| 1 | 0 to 100 μm; 0 to 200 μm; 0 to 500 μm |
| 2 | special to be defined |

E : Alarm 1 relays

| | |
|---|-----------------------|
| 0 | normally de-energized |
| 1 | normally energized |

F : Alarm 2 relays

| | |
|---|-----------------------|
| 0 | normally de-energized |
| 1 | normally energized |

G : Alarm 1 relays

| | |
|---|----------------------------------|
| 0 | independent for channels A and B |
| 1 | or voting for channels A and B |

H : Alarm 2 relays

| | |
|---|----------------------------------|
| 0 | independent for channels A and B |
| 1 | or voting for channels A and B |

Esempio di ordinazione :

T1-EV/2 / 1/2/0/0/0/0/1/1

