

## VELOCITY TRANSDUCER

# T1-40



The T1-40 transducer measures absolute vibration of any rotating machine support. It supplies a voltage proportional to the vibration speed directly interfaceable with a device that can process the signal (TR-V, TRAL-V, TM1, TDSP).

The T1-40 electrodynamic transducer consists of a suspended plate coil immersed in the magnetic field of a permanent magnet. It is fastened at the point to be tested and generates a signal proportional to the vibration speed.

It is used to monitor pumps, fans, motors and compressors and is available in aluminium or stainless steel.

The transducer is available for the following classified area:

- Ex II 2GD Ex ia IIC T6/T5/T4 Gb Ex ia IIIC T85/100/135°C Db (ATEX - ZONA 1)
- Ex II 1GD Ex ia IIC T6/T5/T4 Ga Ex ia IIIC T85/100/135°C Da (ATEX - ZONA 0)
- Ex ia IIC T6/T5/T4 Gb Ex ia IIIC T85°C/100°C/135°C Db (IECEX - ZONA 1)
- Ex ia IIC T6/T5/T4 Ga Ex ia IIIC T85°C/100°C/135°C Da (IECEX - ZONA 0)

The transducer is certified SIL2 for functional safety.



### TECHNICAL CHARACTERISTICS

Sensitivity	■ 21.2 mV/mm/s
Composition	■ body in anodised aluminium or AISI 316L stainless steel
External connections	■ 5 or 7 pin MIL standard connector
Operating temperature range	■ -40° C ÷ 100° C ■ -40° C ÷ 170° C HT ■ IP65
Type of measurement	■ seismic (absolute vibration)
Measurement direction	■ omnidirectional
Measurement range	■ ± 1 mm
Dynamic range	■ 10 ÷ 1000 Hz fig. 1
Resonance frequency	■ 12 Hz
Transverse sensitivity	■ < 7%
Output impedance	■ 1K Ω a 25°C
Retaining screw	■ M8 X 1,25
Weight	■ ~ 300 gr

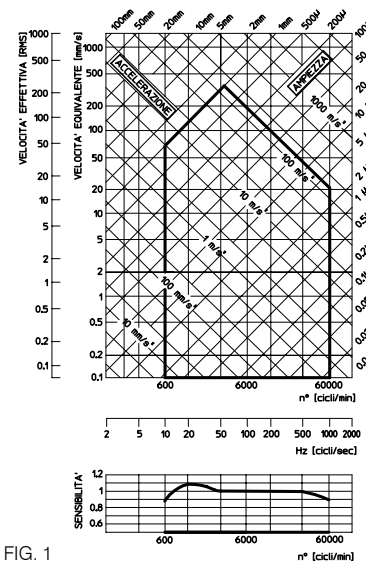


FIG. 1



**CEMB**  
BALANCING MACHINES

# T1-40

A B C D E  
T1-40/00 / □ / □ / □ / □

## A: MEASUREMENT DIRECTION

00 omnidirectional

## B: TEMPERATURE RANGE

00 -40°C ÷ +100°C

## C: CERTIFICATION

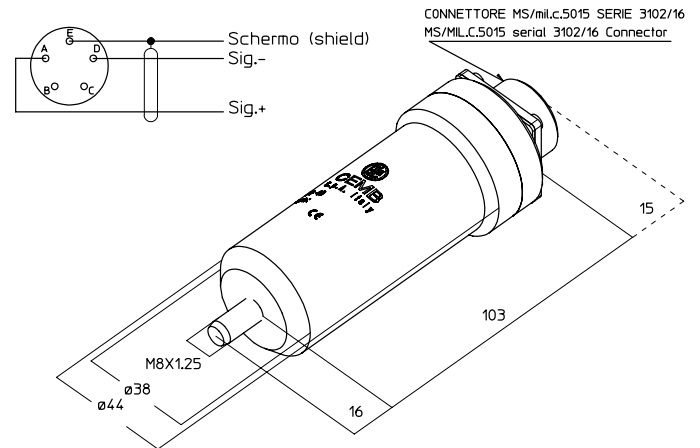
0	SAFE AREA: CE, UKCA, CSA/UL	
2	II 2G Ex ia IIC T6/T5/T4 Gb	II 2D Ex ia IIIC T85/100/135°C Db (ATEX - ZONA 1)
5	Ex ia IIC T6/T5/T4 Gb	Ex ia IIIC T85°C/100°C/135°C Db (IECEX - ZONA 1)
8	II 1G Ex ia IIC T6/T5/T4 Ga	II 1D Ex ia IIIC T85/100/135°C Da (ATEX - ZONA 0)
B	Ex ia IIC T6/T5/T4 Ga	Ex ia IIIC T85°C/100°C/135°C Da (IECEX - ZONA 0)

## D: CASING

0 ALUMINIUM  
1 STAINLESS STEEL (mandatory for zone 0)

## E: FIXED CONNECTOR

0 ALUMINIUM  
1 PLASTIC (mandatory for zone 0)  
2 7 CONTACTS



## CABLES AND OPTIONAL ACCESSORIES

### CABLES:

**SHIELDED CABLE 2X1 STANDARD** 53756-P  
CBL/T1-40 / S / 5 / XX (length in meters)

**SHIELDED CABLE ARMoured IN ETFE** 87SEB5827  
CBL/T1-40 / E / 5 / XX (length in meters)

**SHIELDED CABLE 2X1 WITH METAL JACKET COVERED BY PVC** 99025-P  
CBL/T1-40 / A / 5 / XX (length in meters)

### CONNECTORS:

<b>5 PINS STRAIGHT (standard)</b>	597053126
<b>5 PINS 90°</b>	597053128
<b>5 PINS PLASTIC CASE (mandatory for zone 0)</b>	597053127
<b>7 PINS STRAIGHT</b>	597073116
<b>7 PINS 90°</b>	597073118

### OTHER:

<b>ZENER BARRIER Z960 (for hazardous area)</b>	800208960
<b>GALVANIC ISOLATION</b>	
<b>KFD2-VR-EX1.19 (for hazardous area)</b>	800208984
<b>PLASTIC TAG</b>	040STR000
<b>STAINLESS STEEL TAG</b>	980710835



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