

## VIBRATION TRANSMITTER

# TR-27



The integrated transmitter TR-27 measures the absolute vibrations of any rotating machine support and it is able to interface directly in 2 wires technique (current loop 4 ÷ 20 mA) to an acquisition system (PLC or DCS).

The transmitter, secured directly on machinery, generates an electric signal (4÷20 mA) which is proportional respectively to vibration velocity or acceleration.

The transmitter is made of an AISI 316L steel body with machine connection thread;

the connection to the acquisition system is effected by means of an integral cable. It is available both a standard version (PVC shielded cable and nickel-plated brass cable gland) and a special version for aggressive environment (EFTE shielded armoured cable and AISI 316L steel cable gland).

NOTE: The transmitter is available in different configuration versions and does not need any set-up or maintenance.

The transmitter is certified for application in classified area as:

ATEX:

- ⚡ II 1G Ex ia IIC T6/T5/T4 Ga
- ⚡ II 1D Ex ia IIIC T85°C/T100°C/135°C Da
- ⚡ I M1 Ex ia I Ma
- ⚡ II 3G Ex ec IIC T6/T5/T4 Gc
- ⚡ II 3D Ex tc IIIC T85°C/T100°C/135°C Dc

IECEx:

- Ex ia IIC T6/T5/T4 Ga
- Ex ia IIIC T85°C/T100°C/135°C Da
- Ex ia I Ma
- Ex ec IIC T6/T5/T4 Gc
- Ex tc IIIC T85°C/T100°C/135°C Dc

The transmitter is certificate SIL 2 for functional safety.



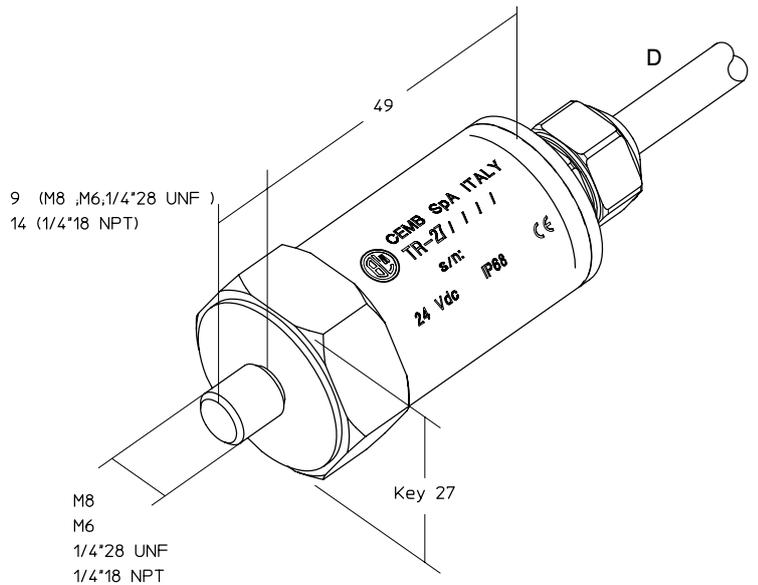
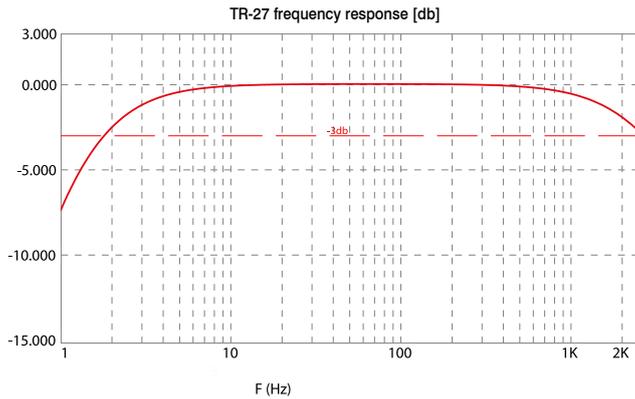
### TECHNICAL CHARACTERISTICS

Composition	<ul style="list-style-type: none"> <li>■ AISI 316L stainless steel integrated transmitter body</li> </ul>
Power supply	<ul style="list-style-type: none"> <li>■ 24 Vdc (10 ÷ 35 Vdc) current loop 4 ÷ 20 mA (2 wires)</li> </ul>
External connections	<ul style="list-style-type: none"> <li>■ MIL-C-5015 2 poles connector (conductors max section 2,5 mm<sup>2</sup>)</li> <li>■ 4 poles M12 connector</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>■ - 60°C ÷ + 120°C</li> <li>■ IP68 EN 60529/10.91 standards</li> </ul>
Measure type	<ul style="list-style-type: none"> <li>■ omnidirectional seismic (absolute vibration)</li> </ul>
Application axis	<ul style="list-style-type: none"> <li>■ any</li> </ul>
Dynamic field	<ul style="list-style-type: none"> <li>■ ± 18 g</li> </ul>
Transverse sensitivity	<ul style="list-style-type: none"> <li>■ &lt; 5 %</li> </ul>
Linearity	<ul style="list-style-type: none"> <li>■ ± 3% - 75 Hz</li> </ul>
Dynamic performances	<ul style="list-style-type: none"> <li>■ ±5% / 10Hz-1kHz</li> <li>■ -3db / 1,5Hz - 2kHz</li> </ul>
Insulation	<ul style="list-style-type: none"> <li>■ ≥10<sup>8</sup> Ω between signal and case</li> </ul>
Standard machine connection thread	<ul style="list-style-type: none"> <li>■ see tables "MACHINE CONNECTION THREAD"</li> </ul>
Maintenance	<ul style="list-style-type: none"> <li>■ no maintenance is needed</li> </ul>
Electrical connections	<ul style="list-style-type: none"> <li>■ bipolar shielded cable</li> </ul>
Mounting torque	<ul style="list-style-type: none"> <li>■ 5÷10 N-m</li> </ul>



**CEMB**  
BALANCING MACHINES

# TR-27



## ORDER INFORMATION

TR - 27 /  /  /  /  /

### A: MEASURING FIELD [RMS]

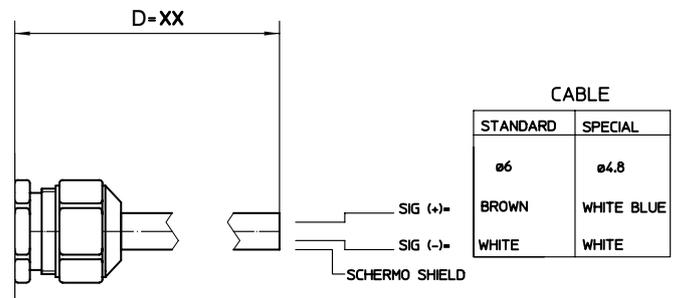
0	0 ÷ 10 mm/s
1	0 ÷ 20 mm/s
2	0 ÷ 50 mm/s
3	0 ÷ 100 mm/s
4	0 ÷ 1 g
5	0 ÷ 5 g
6	0 ÷ 10 g
7	0 ÷ 25,4 mm/s (0 ÷ 1 in/s)
8	0 ÷ 12,7 mm/s (0 ÷ 0,5 in/s)
S	special to be defined

### B: MACHINE CONNECTION THREAD

0	M8x1,25
1	1/4" - 18NPT
2	1/4" - 28UNF
3	M6x1
4	M8x1
5	M10x1

### C: VERSION

0	Safe area (PVC Cable)
1	Special - compulsory for ATEX (ETFE cable, INOX cable-gland)
D:	<b>CABLE LENGTH</b> pitch 1m
XX	length in meters



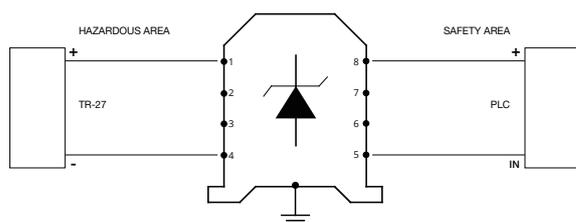
### E: CERTIFICATIONS

0	Safe area
8	Ex II 1G Ex ia IIC T6/T5/T4 Ga
	Ex II 1D Ex ia IIIC T85°C/T100°C/135°C Da
	Ex I M1 Ex ia I Ma
	Ex II 3G Ex ec IIC T6/T5/T4 Gc
	Ex II 3D Ex tc IIIC T85°C/T100°C/135°C Dc
B	Ex ia IIC T6/T5/T4 Ga
	Ex ia IIIC T85°C/T100°C/135°C Da
	Ex ia I Ma
	Ex ec IIC T6/T5/T4 Gc
	Ex tc IIIC T85°C/T100°C/135°C Dc

## OPTIONAL ACCESSORIES

### ZENER BARRIER Z787 (for hazardous area)

800208787



B5MAG10 CY002

### PLASTIC TAG

040STR000

B5MAG10 CY002

### STAINLESS STEEL TAG

980710835