

TESA D-TecT L10

Triaxial
Shock
Detector



- **INNOVATIVE SENSING TECHNOLOGY**
- **HIGH SENSITIVITY**
- **VISIBLE AND AUDIBLE WARNING
WHEN OUT OF TOLERANCES**
- **BUILT-IN MEMORY**
- **EXPORTABLE HISTOGRAM**

PRODUCT DESCRIPTION

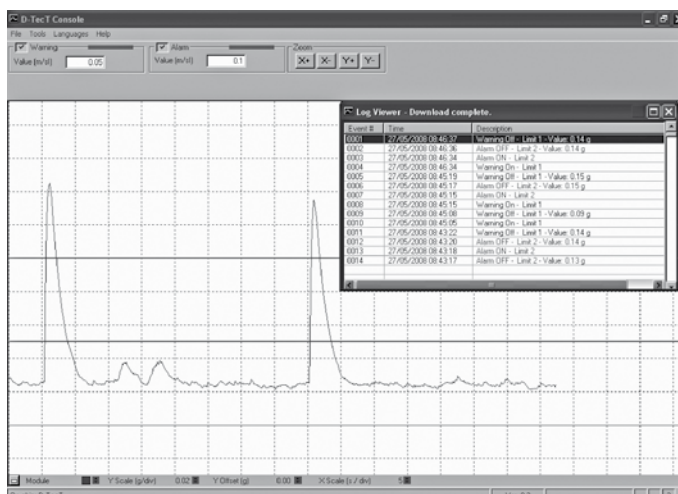
TESA D-TECT provides the User with solution to detect any imperceptible vibrations affecting both your precision measurements and product quality. This sensing product allows you to check whether the measurements being carried out are taken in a shock-free or collision-free environment.

Using the innovative MEMS technology, the integrated accelerometers provide the high sensitivity needed to detect any low acceleration from 1 mg, at a frequency to 10 Hz.

The software programme used for value acquisition permits the conditions (shocks or collisions) to be easily checked visually during the measurement process.

Should a measured value be out of tolerance, this value will be stored at once in the built-in memory, and can be transferred for the generation of a final histogram with detected acceleration included. This memory also allows the use of TESA D-TECT L10 without the need for this sensor to be connected to a computer. More than 12 000 measured values can be registered and downloaded.

TESA D-TecT L10 lets you be sure that your environment is free from parasitic vibration or acceleration that are likely to badly affect all processes.



ENVIRONMENT

TESA D-TECT L10				
Unfriendly Environment	Workshop Environment	Stable Factory Environment	Inspection Laboratory	Calibration Laboratory

DELIVERY SCOPE

- 1 Wooden case with foam inserts
- 1 Data acquisition software
- 1 USB power cable along with universal adapter

- 1 TESA D-TECT L10
- 1 Instruction manual
- 1 Analogue cable

EXAMPLE OF USE

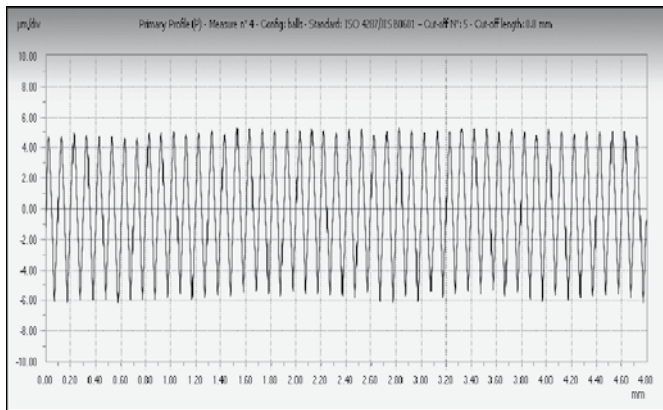
During a roughness measurement, several tests have been conducted until a number of repeatable values Ra could be obtained. Being sure about roughness parameters and primary profile, different kinds of shocks have been tested in order to quantify the effect of a collision on the given parameters. The example that follows is a common measurement taken in both undisturbed and disturbed environment.

Measuring Configuration

- TESA Rugosurf 90G connected to a computer through the USB port.
- Measurement Studio software for data acquisition on the roughness profile.
- Roughness standard used as part to be measured, Ra = 2,93 µm
- TESA D-TECT L10 connected to a computer through the USB port
- Console D-TECT L10 software for data acquisition on disturbances.

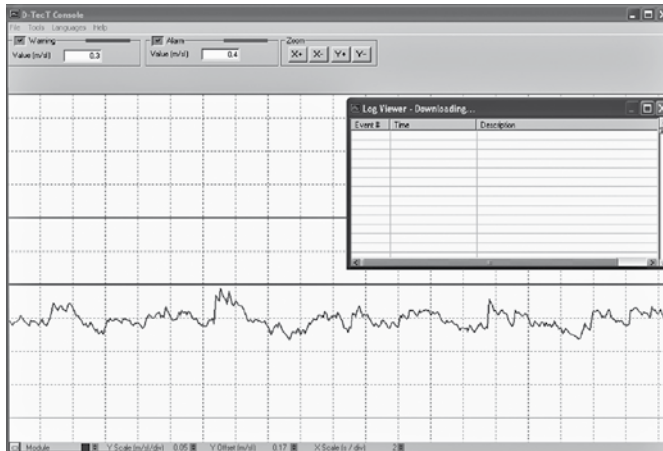


Undisturbed Environment



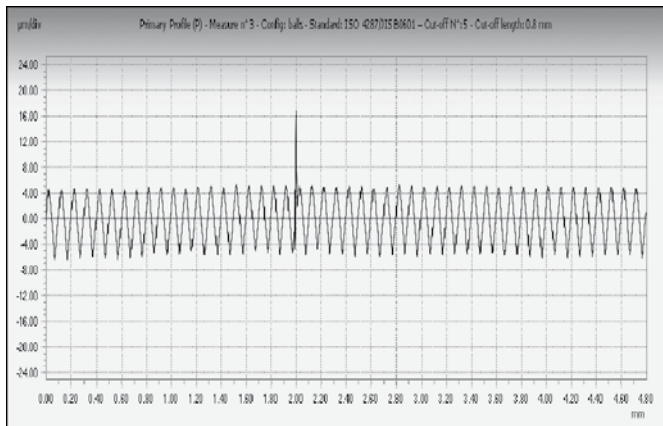
Parameter	Value	Col.
Ra	2.935 μm	
Rq	3.368 μm	
Rt	11.475 μm	
Rz	11.205 μm	
Rp	5.213 μm	
Rv	5.992 μm	
Rc	10.754 μm	
RSm	100 μm	
Rδc	3.514 μm	
RPc	100 /cm	

Primary profile and roughness parameters



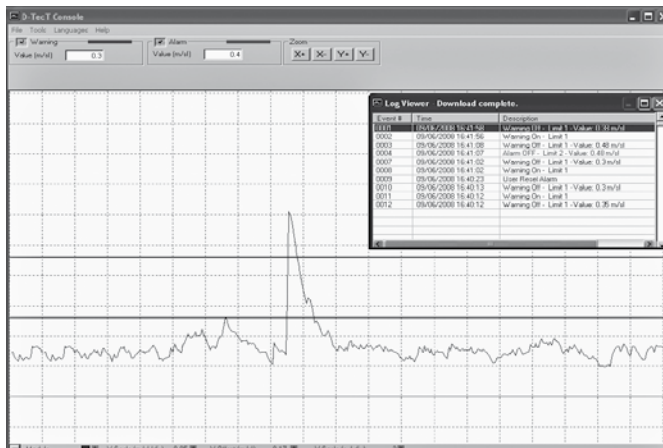
Registered surrounding conditions using TESA D-TECT L10

Disturbed Environment



Parameter	Value	Col.
Ra	2.905 μm	
Rq	3.36 μm	
Rt	22.329 μm	
Rz	15.231 μm	
Rp	9.204 μm	
Rv	6.027 μm	
Rc	10.79 μm	
RSm	100 μm	
Rδc	3.398 μm	

Primary profile and roughness parameters



Registered surrounding conditions using TESA D-TECT L10

TECHNICAL DATA

TESA D-Tect L10	05332001	
Scope of delivery	1 Wooden case with foam inserts 1 Data acquisition software 1 USB power cable along with universal adapter	1 TESA D-TECT L10 1 Instruction manual 1 Analogue cable
Sensitivity	1x10 ⁻³ g to 10 Hz	
Measuring scale	± 2 g	
Dynamic scale	85 dB at 10 Hz	
DC bandpass filter	1500 Hz	
Max. perm. acceleration	10 g	
Response time	< 1 ms	
Operating temperature range	-20 to 70°C	
Humidity	0 to 100 %	
Protection degree	IP 67	
Drive voltage	5V DC	
Power consumption	200 mA	
COMM port	USB 2.0	
Transmission protocole	Baud rate 28800 or 19200 bits/sec. – 1 start bit - 1 stop bit, data 8 bits.	
Weight	720 g	

WHEN YOU NEED TO BE SURE

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