

# safetyman<sup>®</sup> DT3

Measuring Technology for your Safety on Machines

- fast
- practical
- accurate



## safetyman<sup>®</sup> DT3

### Stop Time Meter

- Stop time measurement on all machines and safety devices
- without any electrical connection to the machine control
- Calculation of safety distance according EN/ISO 13855 and B11.19
- Machine safety inspections
- Inspections of power presses
- Initial commissioning of machines
- Regular testing of AOPD's

# safetyman<sup>®</sup> DT3

## Safetyman DT3 measuring system

enables fast, practical measurement of stopping times without an electrical connection to the machine control system. The measurement is triggered directly via the protective device, e.g. light curtain, laser scanner, two-hand control or safety door switch. The result is a measurement that is highly realistic and extremely precise. Measuring device - The mobile, battery-powered DT3 measuring device controls and analyses the stop time measurement. It calculates the required safety distances in accordance with European and American standards.

Sensor - detects the position and speed of the machine movement.

Actuator - fast electro-mechanical actuator - it activates the protective device and thus generates a realistic stop of the machine. Without any electrical connection to the machine.

PC software

organises all the data of your machinery and saves the measurement results, helps to create the safety report.

- Robots
- Power presses
- Forming machines
- Stamping machines
- Assembly lines
- Pressbrakes
- Guillotines
- Customized machines
- Indexing tables

- Coilers
- Processing centres
- Conveyor systems
- Packaging machines
- Stretcher
- and much more....

Device

+

Sensor

+

Actuator

+

Case



The safetyman<sup>®</sup> DT3 stop time meter is a mobile, battery-powered measuring device of the latest design. It can be operated intuitively and conveniently via a touch display. The device guides the operator through the measurement in various modes. By selecting the protective device, the measured values are then automatically converted into the required safety distances in accordance with EN ISO 13855 and ANSI B11.19.

Our cable transducer sensors have been specially developed for mobile use. Robust housing technology and a wide range of mounting options ensure convenient use. A high resolution and an exceptionally dynamic range allow the precise acquisition of measurement data, even on very fast machine movements.

A friction wheel encoder is available for rotating or endless linear movements.

The Auto-Hand is a universally applicable electro-mechanical actuator for triggering protective devices such as light curtains, laser scanners or two-hand controls.

The total stopping time of a machine, including the reaction time of the protective device, can be determined with the Auto-Hand without an electrical connection to the machine control system.

The robust device case with ergonomic handle is your ideal companion for mobile everyday use. A foam inlay specially tailored to your needs provides secure protection for your safetyman<sup>®</sup> DT3 and all components.

# safetyman<sup>®</sup>PC

Your machinery at a glance

The new PC software **safetyman<sup>®</sup>PC** organises machine parks, machines, measurement reports and any documents (e.g. images, risk assessments, videos or inspection reports) that you want to assign to a machine in a database.

Everything is clearly organised and available at a glance. Of course, the PC software manages the complete data exchange with the measuring device, e.g. machine parks, measurement logs, settings and speed curves. Convenient graphic tools allow you to analyse the braking behaviour of your machine.



## Functions

• Reading measuring reports from DT3	✓
• Reports open / save	✓
• Automatic assignment of reports to machines	✓
• Sorting reports according to name or time	✓
• Save reports as image	✓
• Insert reports in Excel formulars	✓
• Customers logo on reports	✓
• Archive with data base	✓
• Organization of machine pools, machines and reports	✓
• Assigning various documents (all formats) to machines	✓
• Organization of inspection intervals	✓
• Transfer of machine pools to DT3	✓
• Copying and moving machines	✓
• Settings for DT3 - creating and managing	✓
• Standard settings for DT3 - creating and managing	✓
• Full text search of machines and reports	✓
• Search of machines in pools	✓
• Reading velocity data from DT3	✓
• Graphical representation of velocity curves	✓
• Graphic with zoom function	✓
• Representation of velocity curve over distance or time	✓
• Comparison curves	✓
• 2 cursor function (time / distance calculation)	✓
• Analysis of reaction times control and breaks	✓
• Screen shot	✓
• Firmware Update	✓

## Connectivity Module



WLAN / Bluetooth module (optional) - it connects the DT3 with PCs, desktops, smartphones and tablets wirelessly.

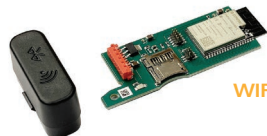
# safetyman<sup>®</sup> DT3

## Data



safetyman<sup>®</sup> DT3

**1** Measuring device Safetyman DT3  
 Power Supply: 12 V, 1000mA  
 Battery: Lithium Ionen 3500 mAh  
 Operation time: up to 20 h  
 Charging time: ca. 3,5 h  
 Weight: 1,45 kg  
 Size: (W x H x L): 170 x 158 x 100 mm  
 Display: 5 Inch, Touch : capacitiv with protective panel  
 Keyboard: Keys Duraswitch A, B, C, ESC  
 LEDs: white, orange, blue  
 Interfaces: Sensor, actuator, power supply, USB,  
 Memory: RAM 4 MB / Flash 2GB



WiFi / Bluetooth module

**2** WLAN/ Bluetooth module integrated (option)  
 Wifi 802.11 b/g/n (802.11n, 150 Mbps) 2.4 GHz  
 BT V4.2 - BLE und Classic Bluetooth  
 SD Card 32 GB



safetyman<sup>®</sup> PC

**3** PC software for Windows with data base  
 (SQL lite or SQL Server)



Cable transducer

**4** Sensors  
 Cable transducer:  
 Cable length: 1,25 m/2 m/3 m\* /4,5 m\*/ 6\*  
 Resolution: 0,125 mm  
 Mounting: magnets  
 Dimensions (W x H x L): 60 x 60 x 90 / 80 x 80 x 101\* mm  
 Weight: 0,7 kg / 1,2\* kg

**6** Wheel encoder  
 (for rotary motions  
 and endless linear  
 motions)  
 with magnetic stand



Wheel encoder



Photo sensor

**6** Reflex optical sensor for fast rotary motions  
 (e.g. processing centres, circular saws, rpm  
 recording)



Auto-Hand

**Actuator**  
**7** Auto-Hand  
 (Triggering device for light curtains, scanners and two-hand controls)  
 Stroke: 15 mm  
 Supply voltage: approx. 7.0V DC (measuring device)  
 Dimensions (W x H x L): 220 x 35 x 35 mm  
 Weight: 0.3 kg



Relay box

**8** Relay box  
 (For electrical connection to the machine control)  
 Supply voltage: approx. 7V DC (measuring device)  
 Contact: 2 normally closed contacts 230V, 5A  
 Dimensions (W x H x L): 50 x 25 x 100 mm  
 Weight: 0.2 kg



**9** Carrying case  
 Dimensions (W x H x L): 460 x 350 x 160 mm  
 (larger depends on incl. equipment)  
 Weight: from 8 kg on (depends on included equipment)