



## SAFEMASTER S

**DOLD** 

### Speed and frequency monitor UH 6937 - Safe, sensorless drive monitoring

With the **speed and frequency monitor UH 6937** from the **SAFEMASTER S** Series, DOLD offers an efficient, economic solution for safe, sensorless drive monitoring. Monitoring the output frequency of traction converters is just one of the many different ways to use this component. In case of over- or under-frequency, or if the frequency is outside the set window, the frequency monitor shuts off safely, proving its benefit over frequency converters with integrated safety functions in any application where simplicity, flexibility, and safety are required.

As an additional protective measure, the device can be adapted to an application by pressing just a few buttons. With the appropriate wiring, the device can offer the safety functions STO (safe torque off), SOS (safe operation stop), SLS (safely limited speed), SSM (safe speed monitoring) and SSR (safe speed range) in accordance with EN 61800-5-2. And it does all this up to Performance Level (PL) e or Safety Integrity Level (SIL) 3.

With the help of ergonomically shaped buttons on the front, and a lit LCD display, you can quickly and easily access parameters relevant for the application, such as monitoring functions, delay times, and frequency ranges for up to four operating modes – all without a PC.

#### Your advantages

- ▶ For safety applications up to cat. 4 / PL e or SIL 3
- ▶ Simple, time-saving start-up without a PC
- ▶ Sensorless and easy to upgrade
- ▶ Comprehensive diagnostic function
- ▶ Bypass option for frequency monitoring (Muting)
- ▶ Up to 4 operating modes can be activated (e.g. automatic, set-up, or service mode)
- ▶ Over- or under-frequency or frequency range monitoring
- ▶ For frequencies up to 1200 Hz and voltages up to AC 690V

**Our experience. Your safety.**

# Speed and frequency monitor UH 6937

## Technical features

- ▶ Over- or underfrequency or frequency range monitoring for single phase or three-phase alternating voltages
- ▶ User-friendly front display:
  - for comfortably setting parameters through menus
  - for target and actual value displays in Hz
- ▶ Quick response time using cycle duration measurements of input frequency
- ▶ Adjustable hysteresis
- ▶ Adjustable release delay of 0 ... 100 s
- ▶ Adjustable start-up bypass time of 0 ... 100 s
- ▶ Adjustable alarm delay of 0.1 ... 100 s
- ▶ Manual or auto-reset
- ▶ Galvanic separation of measuring input, auxiliary voltage, and output contacts
- ▶ 2-channel design
- ▶ Positively driven output contacts
- ▶ LED display and 2 semiconductor signal outputs
- ▶ Optional analogue output and selection from up to 4 frequency modes
- ▶ 45 mm construction width

### Safety technology characteristics

Cat. 4 / PL e according to DIN EN ISO 13849-1  
 SIL CL 3 according to EN 62061 and EN 61800-5-2  
 SIL 3 according to IEC 61508 and EN 61511

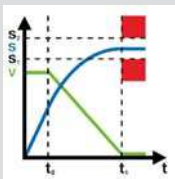


Safe, sensorless speed and frequency monitor UH 6937

## Order information

Standard type: UH 6937.02PS DC 24 V  
 Item number: 0066820

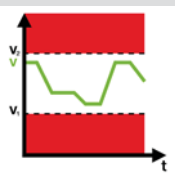
## Functions



### Safety functions in accordance with IEC 61800-5-2

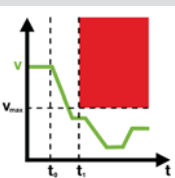
#### Safe Operating Stop (SOS)

The SOS function stops the motor from deviating by more than a set amount from the stop position. The PDS(SR) provides the motor the energy that keeps it from being affected by external forces.



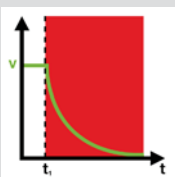
#### Safe Speed Range (SSR)

The SSR function keeps the motor speed within determined limit values.



#### Safely Limited Speed (SLS)

The SLS function stops the motor from exceeding the determined limit speed.



#### Safe Torque Off (STO)

No energy is delivered to the motor that could cause it to turn (or move, with a linear motor). The PDS(SR) delivers no energy to the motor that could create torque (or force, with a linear motor).

## Further information

UH 6937

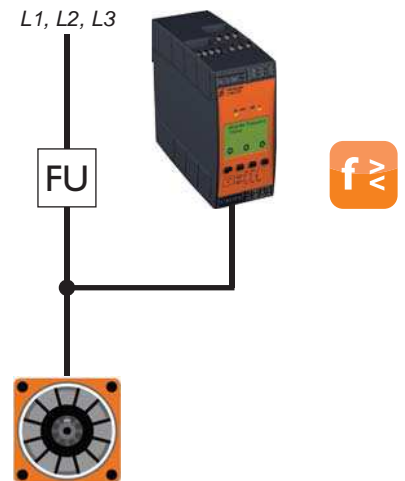
Start

Are you looking for more solutions for speed monitoring?

UH 6932

## Areas of application

- ▶ Safe, sensorless drive monitoring
- ▶ Monitoring the output frequency of frequency converters
- ▶ Stage engineering
- ▶ Woodworking
- ▶ Machine tools
- ▶ Wind energy systems
- ▶ Crane systems



Safe sensorless drive monitoring using monitoring of the converter's output frequency

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