



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 underfrequency, violation of the set window range or wrong direction of rotation 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), SSR (safe speed range) and SDI (safe direction) in accordance with EN 61800-5-2.

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

- ▶ Direction of rotation monitoring up to PL d / Cat. 2 or SIL 2 while retaining PL e / Cat. 4 or SIL 3 for frequency monitoring
- ▶ 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)
- ▶ Monitoring of over-, underfrequency, window range and direction of rotation
- ▶ For frequencies up to 1200 Hz and voltages up to AC 690 V

Our experience. Your safety.

Speed and frequency monitor UH 6937

Technical features

- ▶ Frequency monitoring corresponds:
 - PL e / Cat. 4 acc. to EN ISO 13849-1
 - SIL 3 acc. to EN 61508 and EN 61800-5-2
 - For frequency monitoring applications up to SIL 3 acc. to EN IEC 62061 and EN 61511
- ▶ Direction of rotation monitoring corresponds:
 - PL d / Cat. 2 acc. to EN ISO 13849-1
 - SIL 2 acc. to EN 61508 and EN 61800-5-2
 - For rotational direction monitoring applications up to SIL 2 acc. to EN IEC 62061 and EN 61511
- ▶ Over-, underfrequency or window monitoring of single or 3-phase in AC systems
- ▶ Direction of rotation monitoring with 3-phase AC voltage
- ▶ User-friendly frontside 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



Safe, sensorless speed and frequency monitor UH 6937



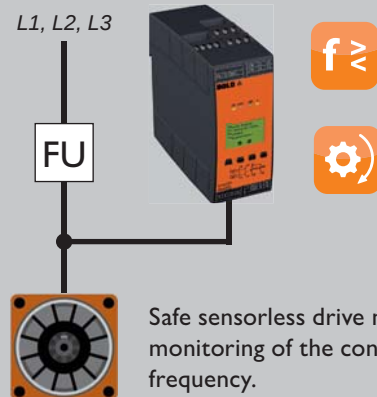
Order information

Standard type: UH 6937.02PS/61 DC 24 V
Item number: 0066820

Fields of application

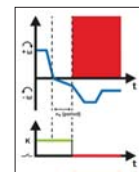
- ▶ Safe, sensorless drive monitoring
- ▶ Monitoring the output frequency of frequency converters
- ▶ Stage engineering
- ▶ Woodworking
- ▶ Machine tools
- ▶ Wind energy systems
- ▶ Crane systems

L1, L2, L3

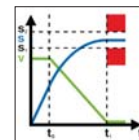


Safe sensorless drive monitoring using monitoring of the converter's output frequency.

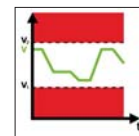
Safety functions acc. to IEC 61800-5-2



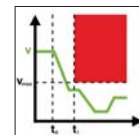
Safe Direction (SDI)



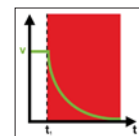
Safe Operating Stop (SOS)



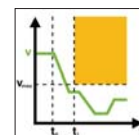
Safe Speed Range (SSR)



Safely Limited Speed (SLS)



Safe Torque Off (STO)



Safe Speed Monitor (SSM)

Further information

UH 6937

Start

Are you looking for more solutions for speed monitoring?

UH 6932

www.dold.com



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