

Safe Speed and Standstill Monitoring

UH 6932 Speed Monitor, UH 6937 sensor-free Frequency Controller
 UG 6917 Speed Monitor Module



There is now a perfect solution for **safe measuring of frequency, speed and standstill** that fulfills the requirements set out in machinery Directive for drive technology. Either for machine building or even for stage equipment and exhibitor trades: protection of people and equipment in an increasingly automated environment must be economically ensured.

Besides the prerequisites for achieving an Industry 4.0-ready environment or supplementing existing drive technology, today there are many new issues that must be addressed.

To satisfy these demands, the SAFEMASTER S series by DOLD offers a well-rounded range of solutions that covers everything from pure speed monitoring up to selective, sensor-free and safety compliant frequency controlling.

Our well-known products BH 5932, LH 5946 and UH 5947 are now being supplemented by new devices with extended features:

UH 6932 Speed Monitor:

This device allows the safe monitoring of overspeed and low-rpm as well as window monitoring for PNP and NPN initiators.

Terminals allow users to select from up to 4 speed settings with various response values. An analog output and a muting function complete the range of possible options.

Settings and signaling are user friendly and can be done by installers directly on the device display without the need for a PC.

UH 6937 Sensor-free Speed Monitor:

This device allows the safe monitoring of overspeed and low-rpm as well as window monitoring for 1 or 3-phase alternating voltages. For the area of secure drive monitoring, the device can also be applied for analyzing the drive rotation frequency of the inverter as well as for sensor-free speed monitoring.

Terminals allow users to select from up to 4 frequency settings with various response values. An analog output and a muting function complete the range of possible options.

Settings and signaling are user friendly and can be done by installers directly on the device display without the need for a PC.

UG 6917 Speed Monitor Module of the configurable safety system SAFEMASTER PRO:

These modules allow for the safe monitoring of encoder signals (TTL, HTL, SIN/COS) and PNP/NPN initiators. They are fully integrated within the safety system via the InRail safety bus and offer a diverse array of combinable analysis possibilities in the software through the corresponding function modules.

An overview of the spectrum: the devices **can be used up to PL e, cat. 4, SIL 3 (BH 5932, up to cat. 3)**
 Speed Monitor BH 5932 (PNP/ NPN)

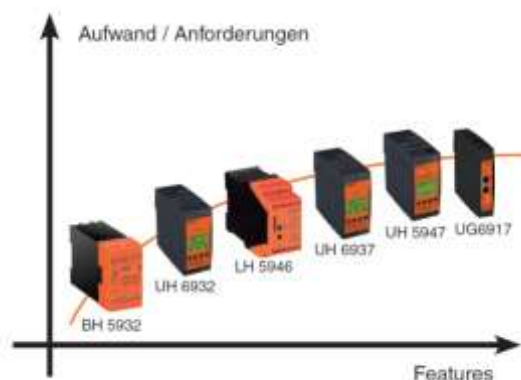
Speed Monitor UH 6932 (PNP/ NPN, 4 settings, analog output)

Stand-by Monitor LH 5946 (sensor-free)

Speed Monitor UH 6937 (sensor-free, 4 settings, analog output)

Frequency Controller and Stand-by Monitor UH 5947
 (PNP, NPN, encoder, safety gates)

Speed Monitor Module UG 6917



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(PNP, NPN, encoder, many axes)

Application

The primary application area for these devices is the **safe monitoring of any drive and movement**.

The devices UH 6932, LH 5946, UH 6937 and UH 5947 are also TÜV certified for use in applications in accordance with **EN 61800-5-2** ("Functional Safety of Electrical Power Drive Systems").

This allows for application (with the corresponding connection and components) with safety functions **STO** (safe turn off moment), **SOS** (safe operational stop), **SLS** (safe limited speed), **SSR** (safe speed range) and **SSM** (safe speed monitoring) as defined by this norm.

The devices UH 6932, LH 5946, UH 6937 and UH 6937 are also TÜV certified for use in applications in accordance with **IEC/ EN 61511** ("Functional Safety in the Process Industry Sector").

In particular, UH 6937 (input frequency up to 1200Hz) serves to monitor frequency **directly at the inverter output**, which therefore allows it, with a device, to monitor inverters with numerous drives.

The speed monitor modules SAFEMASTER PRO UG 6917 are ideal suited for monitoring a **variety of axes**.

The right device can always be found, regardless of the conditions of application (initiators, encoder, inverters). As an additional option for **dampening EMC disruptions**, the **LG 5130 filter** may also be preconnected. Further application examples can be found in the attached data sheet.

Additional application areas for the UH6937 sensor-free frequency controller include use as a safe measuring relay (frequency) or as a safe watchdog.

Potential **Application Areas** (selection):

Drive technology, inverter manufacturers
Wind energy
Escalators
Conveyor technology
Recycling industry
Metal processing
Crane facilities
Process industry
Wood processing
Textile machines
Heavy industry
Construction machines
Turning machines
Stage equipment, Exhibitor trades
etc.

Detailed descriptions are can be found in the data sheet, operating instructions and flyers for the devices. **All devices are TÜV certified.**

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List prices and ordering information:

UH 6932 Speed Monitor

0066816 UH 6932.02PS DC24V (NPN initiators)

0066817 UH 6932.02PS/010 DC24V (PNP initiators)

0066818 UH 6932.02PS/001 DC24V (NPN, analog output, speed setting)

0066819 UH 6932.02PS/011 DC24V (PNP, analog output, speed setting)

Availability: in stock

UH 6937 Frequency Controller

0066820 UH 6937.02PS DC24V (600Hz)

0066868 UH 6937.02PS/100 DC24V (1000Hz)

0066821 UH 6937.02PS/001 DC24V (600Hz, analog output, frequency setting)

0066869 UH 6937.02PS/101 DC24V (1000Hz, analog output, frequency setting)

Availability: in stock

UG 6917 Speed Monitor Module

0066059 UG 6917/002 DC24V (2 initiators)

0066060 UG 6917/102 DC24V (2 initiators, 1 x TTL)

0066061 UG 6917/112 DC24V (2 initiators, 2 x TTL)

0066062 UG 6917/202 DC24V (2 initiators, 1 x HTL)

0066063 UG 6917/222 DC24V (2 initiators, 2 x HTL)

0066064 UG 6917/302 DC24V (2 initiators, 1 x SIN/COS)

0065992 UG 6917/332 DC24V (2 initiators, 2 x SIN/COS)

Availability:

UG 6917/002, UG 6917/112, UG 6917/202, UG 6917/222, UG 6917/332 in stock

Competitors

BH 5932/ UH 6932 Speed Monitors

IFM: DD110s

UH 6937 Frequency Controller

Zarden, IPF: VY86

(other measuring methods: electricity sensor, approval status unknown)

Dina DN3PD1 (new, approval status unknown, fewer features, 22.5 mm wide up to 690V AC)

UG 6917 Speed Monitor Module

Pilz Multi 2: PNOZ m B0 + PNOZ m EF 1 mm / PNOZ m EF 2 mm

Stand-by Monitor LH 5946

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Dina: DN3PS2, Duelco: SSO-10, Pilz: PSWZ X1, Schmersal: AZR 31S1 / SSW 301HV, Schneider: XPS-VN, Omron: G9 SX-SM

UH 5947 Speed and Stand-by Monitor

Pilz: PNOZ s30, Phoenix RSM 4/4X1

Advantages

UH 6932 Speed Monitor and UH 6937 sensor-free Frequency Controller

- ▶ Current status indicator on display
- ▶ Muting function
- ▶ Analog output
- ▶ Select a setting with your own response values even during operation
- ▶ direct multi-language configuration on device without need for a PC
- ▶ additional applications possible through extended certification (norms, see above)
- ▶ TÜV certified for PL e, cat 4, SIL 3

UG 6917 Speed Monitor Module

- ▶ for use with numerous axles (dependent on provider and application)
- ▶ flexible configuration via various function modules
- ▶ TÜV certified up to PL e, cat 4, SIL 3 (dependent on configuration and application)

Competitive Advantages / Customer Benefit

- ▶ extended diagnoses via the analog output (UH)
- ▶ flexible use through mode selection during operation (dynamically controlled applications)
- ▶ Muting function
- ▶ etc.

Special Offers

We would ask that you identify potential target customers in your area and inform us by end of February 2017 so that we may plan the corresponding special offers.

For further information, please contact the headquarter.

Attached: Data sheet, flyer, product matrix