



## SAFEMASTER S

**DOLD** 

### Standstill Monitor LH 5946 - Sensorless safety standstill detection

The sensorless safety related **standstill monitor LH 5946** of the **SAFEMASTER S** family recognizes direction-independent the standstill of motors without making use of additional external sensors like encoder or proximity switch. The Standstill Detection is directly achieved by monitoring the voltage at the motor connection terminals.

Particularly when it comes to access protection, where regular intervention during production process is necessary, the sensorless standstill monitor LH 5946 can make use of its strengths. When there is no dangerous movement from the motor anymore the safety gate can be released within a very short time at detected standstill. Due to a variable adjustment of the response value and reaction time on the device, an individual adaption is possible.

Compared to solutions with time-controlled unlocking of safety gates, maintenance and setup times can be minimized by use of the sensorless standstill monitor LH 5946 and thus productivity can be improved.

#### Your advantages

- ▶ For safety applications up to cat. 4 / PL e / SIL 3
- ▶ Fast reaction time
- ▶ Easy commissioning by means of screwdriver
- ▶ Easy retrofitting, as there is no connection of sensors
- ▶ 2-channel safety monitoring with extended error diagnosis
- ▶ Reductions of down time of machines and installations
- ▶ Combinations with safety lock SAFEMASTER STS available

**Our experience. Your safety.**

# Standstill Monitor LH 5946

## Technical features

- ▶ Safe standstill monitoring of 3- and 1-phase motors
- ▶ Monitored feedback loop for downstream contactors
- ▶ Forcibly guided output contacts  
3 NO + 1 NC
- ▶ For motor voltage up to 690 VAC
- ▶ No external sensors necessary
- ▶ Broken wire detection in the measure circuit
- ▶ Adjustable response voltage selectable from 20 to 400 mVAC or 0.2 to 4 VAC
- ▶ Adjustable standstill time delay from 0.2 up to 6 s
- ▶ Suitable for operation with inverters

### Safety-related characteristics data:

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



Standstill Monitor LH 5946

## Order information

Standard type:  
 LH 5946.48/61 20 ... 400 mV UH DC 24 V 0,2 ... 6 s  
 Item number: 0059266

## Application

The application example describes a sensorless standstill monitoring of machinery and the release of a safeguard by means of safety lock. In doing so, the access to a dangerous machine area is being monitored and will only be unlocked after standstill.

## Some typical application areas

- ▶ Machines and plant building
- ▶ Woodworking
- ▶ Machine tools
- ▶ Conveyors
- ▶ Steel plants

### Detect

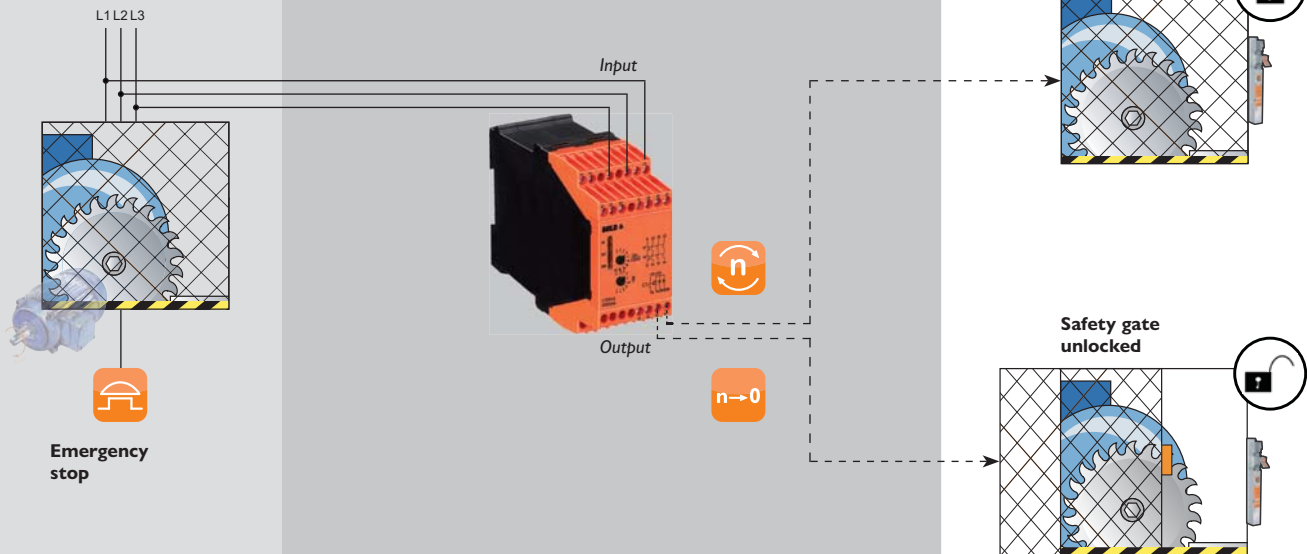
▶ As soon as the emergency stop is activated, the machine will be switched off.

### Evaluate

▶ Standstill monitor supervises the speed of the machine.

### Execute

▶ As soon as the motor is stopped the safety door will be released and unlocked by means of safety lock.



## Further information

LH 5946

Start

www.dold.com

Are you looking for **safe monitoring** of **speed and standstill** by means of initiators and encoder?

UH 5947

**DOLD**

E. Dold & Söhne GmbH & Co. KG  
 Bregstraße 18 • D-78120 Furtwangen  
 T +49 7723 654-0 • F +49 7723 654-356  
 dold-relays@dold.com • www.dold.com