



## SAFEMASTER S

**DOLD**

### Standstill monitor UG 6946 - Safe sensorless standstill monitoring

The safe sensorless **standstill monitor UG 6946** from the **SAFEMASTER S** series detects the standstill of 3-phase and 1-phase motors independent of the direction of rotation. This means sensors such as encoders or proximity switches are not required. Access to the danger zone of a system is only possible by the enabling signal of the standstill monitor after the drive has been switched off and run down. In order to detect a standstill, the remanence voltage induced by the motor windings is evaluated and provides safe standstill monitoring up to Cat. 4 / PL e or SIL 3, even if the motor has already been switched off. Using a conventional release via a time control, dangerous movement could not necessarily be excluded. For the implementation of different operating modes, the standstill monitor UG 6946 also offers the possibility of bridging the standstill monitoring (muting).

The simple integration into the machine and drive concept reduces the commissioning effort and costs and is particularly suitable for use in machine tools and woodworking machines, centrifuges and rolling drives. With a width of only 22.5 mm, the UG 6946 can be accommodated in the control panel even under tight space conditions allowing easy retrofitting. The device also offers two redundant safety contact paths and a forcibly guided signal contact.

#### Your advantages

- ▶ Space saving in the switch cabinet due to only 22.5 mm width
- ▶ Adjustable response voltage 20 - 400 mV or 0.2 - 4 V
- ▶ Possibility of bridging the standstill monitoring (muting function)
- ▶ Standstill detection without additional sensors
- ▶ For safety applications up to Cat. 4 / PL e or SIL 3
- ▶ Rotary switches protected by sealable transparent cover
- ▶ Can be combined with safety interlock SAFEMASTER STS

**Our experience. Your safety.**

# Standstill monitor UG 6946

## Technical features

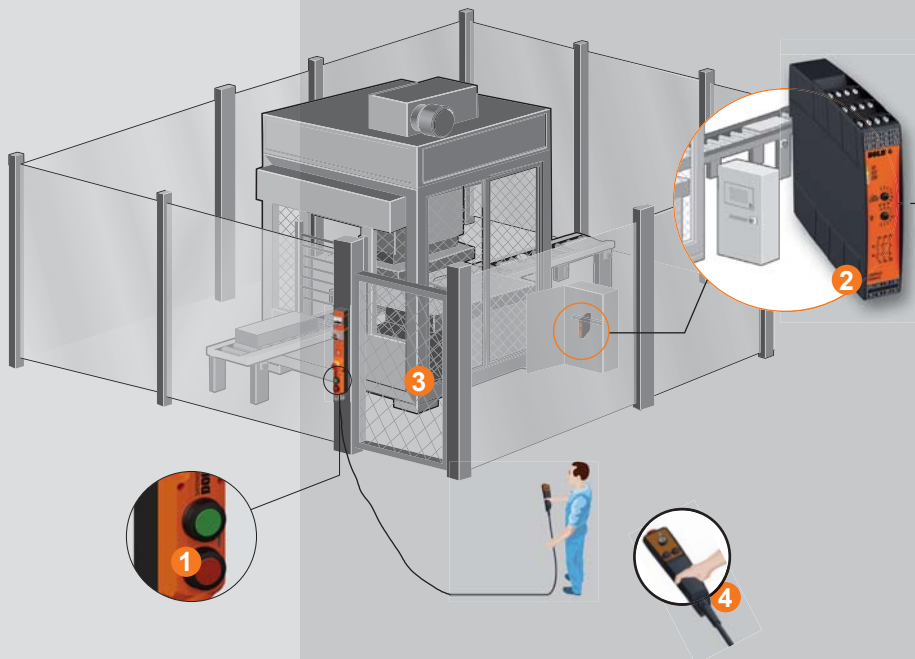
- ▶ According to
  - Performance Level (PL) e and category 4 to EN ISO 13849-1, EN 61800-5-2
  - SIL-Claimed Level (SIL CL) 3 to IEC/EN 62061
  - Safety Integrity Level (SIL) 3 to IEC/EN 61508, IEC/EN 61511 and EN 61800-5-2
- ▶ Safe standstill monitoring of 3- and 1-phase motors
- ▶ No external initiators required
- ▶ Independent of direction of rotation
- ▶ Wire break detection in the measuring circuit
- ▶ Forcibly guided output contacts:
  - 2 NO, 1 NC contact
- ▶ Adjustable voltage threshold
- ▶ Adjustable downtime
- ▶ LED displays for motor standstill, wire break and operating voltage
- ▶ Suitable for use with frequency converters
- ▶ Pluggable terminal blocks with screw or cage clamp terminals
- ▶ Possibility of bridging the standstill monitoring (muting)
- ▶ 22.5 mm width

## Order information

Standard type: UG 6946.02PS 20 ... 400 mV UH DC 24 V  
Item number: 0068412

## Application

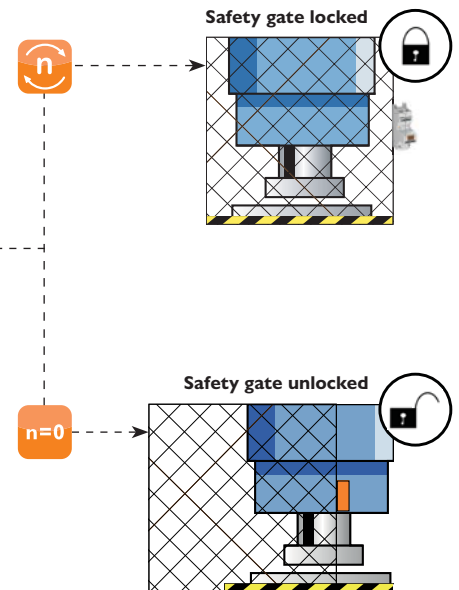
For maintenance work, the plant is shut down in a controlled manner by actuating the stop function ①. Access to the hazardous machine area is monitored by the UG 6946 ②. Only after a safe standstill has been detected the standstill monitor releases the safety interlock and the protective door ③ can be unlocked. When the protective door is opened, dangerous movements must be switched off immediately and safeguarded against restarting. Only then can the service technician safely enter the system. The enabling switch is taken into the safety area of the machine for his own protection ④.



Safe sensorless standstill monitor UG 6946

## Fields of application

- ▶ Machinery and plant engineering
- ▶ Woodworking
- ▶ Machine Tools
- ▶ Conveying technology
- ▶ Metalworking



## Further information

UG 6946

Start

Are you looking for further solutions for speed monitoring?

UH 6932

www.dold.com

**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