



# Level up your safety! SX6 safety module

# A new level of safety.

With its 6th generation of drive controllers, STOBER offers innovative solutions for the increasing requirements in automation and mechanical engineering. The SX6 safety module is a brand new addition to the portfolio. It adds numerous safety functions to the range of functions of both SC6 and SI6 drive controllers. It is controlled via EtherCAT<sup>®</sup> (Fail Safe over EtherCAT, FSoE).

#### Many ways to achieve machine safety.

The SX6 enables the conventional Safe Torque Off (STO), Safe Stop 1 (SS1) and Safe Stop 2 (SS2) stop functions.

A special highlight is that the STO function can be activated individually for each axis on multi-axis controllers.

In addition, Safely-Limited Speed (SLS) and Safe Speed Range (SSR) ensure that the projected velocity limits are always adhered to. Safe Direction (SDI) monitors the direction of motion, while Safely-Limited Increment (SLI) limits the increment and Safe Operating Stop (SOS) ensures a safe standstill.







### Tried and tested in practice.

STOBER developed the SX6 safety module in collaboration with Pilz GmbH & Co. KG – with a particular focus on practical suitability. Featuring a consistent twochannel structure, the SX6 tests the integrated components upon every device start-up, after every STO and during operation. This eliminates cyclical function tests of safety functions that are subject to documentation at the end customer's location.





"To increase productivity and availability, we have extended the monitoring mechanisms beyond the basic standardized requirements. Position-based limit value monitoring and predictive suppression of interference signals enable the intended limit values to be approached with a minimal interference distance.."

- Tim Lang, Head of Applications, STOBER

#### Fail Safe over EtherCAT.

The SX6 is controlled via the secure Fail Safe over EtherCAT (FSoE) protocol and uses the existing EtherCAT<sup>®</sup> infrastructure – which significantly reduces the effort required for cabling. Secure communication functions according to the black channel principle and is transmitted together with the functional EtherCAT<sup>®</sup> communication via the same connection.

# The benefits at a glance.

- FsoE certified product.
- Extended safety functions up to SIL 3, PL e, category 4.
- Compatible with SC6 and SI6 drive controllers.
- No safety encoder necessary.
- Free selection of motors and cables.
- Elimination of standstill or speed monitors.
- Straightforward project configuration and commissioning.
- Simple, quick service concept.

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