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## Certified press safety library

More efficient engineering with fail-safe function blocks

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Do you want preassembled and certified press safety modules that save time when testing machine prototypes? Then we have the optimal solution for you: With the certified press safety modules in the Totally Integrated Automation Portal (TIA Portal), engineering has become more efficient throughout – from the design phase to the prototype test.

The library of certified press safety functions can be used for the automation of mechanical, hydraulic, pneumatic, and servo presses. It is certified by the Liability Insurance Association Wood and Metal and complies with the relevant requirements of Machinery Directive 2006/42/EG and the standards **DIN EN 62061**, **IEC 61508**, and **EN ISO 13849-1**.

With SIMATIC STEP 7 Safety, you enjoy all the benefits of the TIA Portal for fail-safe automation. It includes a controller, engineering, and communication for standard and fail-safe automation. Thanks to our press safety library for the SIMATIC Advanced, Distributed, and Software Controllers with Safety Integrated, you can rely on functional and certified modules – perfectly documented and pretested. With the SIMATIC S7-F/P press safety modules, you remain flexible and comply with all safety standards.

For the first fail-safe SIMATIC S7 controllers, there is a certified software library that has been successively expanded

for over ten years, and that considerably facilitates configuration of press safety functions by the user.

Depending on the quantity framework and response times, you can select different CPUs and use them to design flexible topologies. To create safety-related programs for SIMATIC S7 controllers, you can choose between the S7 Distributed Safety and SIMATIC STEP 7 Safety Advanced option packages.

### Highlights

- Scalable basic hardware
- Online help for each module
- Documentation as part of testing
- Certified sample project for servo presses
- Certified, safe, electronic software cam switchgear



\*All fail-safe Advanced, Distributed, and Software Controllers can be engineered with SIMATIC STEP 7 Safety Advanced. In addition to SIMATIC STEP 7 Safety, the SIMATIC S7-300F/S7-400F can also be configured with S7-Distributed Safety.

### Components of the SIMATIC S7-F/P press safety library

Two-hand console (pluggable, incl. higher-level release)	Valve control of mechanical and hydraulic presses
Foot switch (pluggable, incl. higher-level release)	Damping of brake on mechanical presses
Light curtain (safety and clock modes)	Cam monitoring of eccentric presses
Mode selection (one out of eight/two out of six)	Operation sensor (shaft break protection) via safe digital input/ PROFIsafe encoder/counter module
Release for single person and multi-person operation	Dynamic OT shutdown
Enabling switch	Monitoring of coasting on presses with linear drive
Emergency stop with and without restart inhibit	Evaluation of non-equivalent and equivalent encoder
Dynamic valve control	Classification of errors in categories and their acknowledgement
Safety door (with locking/acknowledgement)	Safe software cam switchgear for mechanical and servo presses, incl. pendulum mode
Feedback module (propagation time and discrepancies)	Brake test on a servo press
Monitoring of cartridge valves	Safe setup mode and single-stroke mode on a servo press
Energizing and monitoring of actuators	

### Scope of delivery

Fail-safe certified module library
Documentation of individual modules (component of testing)
Library installation routines for S7-Distributed Safety and SIMATIC STEP 7 Safety Advanced
Sample projects for mechanical, hydraulic, and servo presses, incl. documentation
License certificate
Type-examination certificate

### Compliance with press-specific standards

DIN EN 62061 (up to SIL 3)
EN ISO 13849-1 (up to PL e)
IEC 61508 (up to SIL 3)
DIN EN 692 "Machine Tools – Mechanical Presses – Safety"
DIN EN 693 "Machine Tools – Safety – Hydraulic Presses"
EN 12622 "Safety of Machine Tools – Hydraulic Die-Bending Presses"
DIN EN 13736 "Safety of Machine Tools – Pneumatic Presses"

### Online support

siemens.com/press-safety  
MLFB: 6AU1837-0EA10-0GX1

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

#### Safety notes

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions only form one element of such a concept. For more information about industrial security, please visit <http://www.siemens.com/industrialsecurity>

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