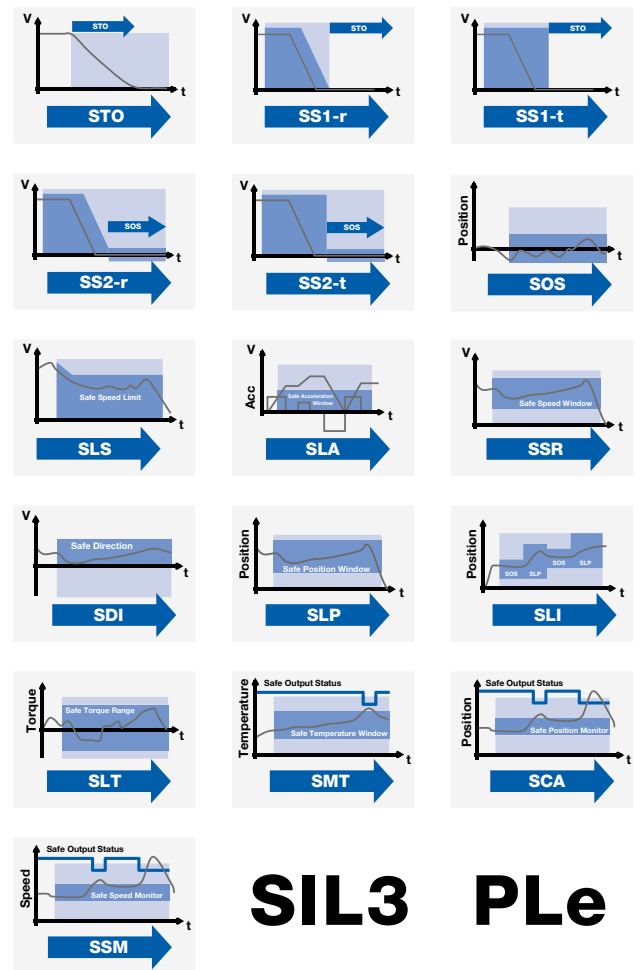


YASKAWA

Advanced Safety Module

Sigma-7 400 V Series



SIL3 PL_e

Safety over
EtherCAT®

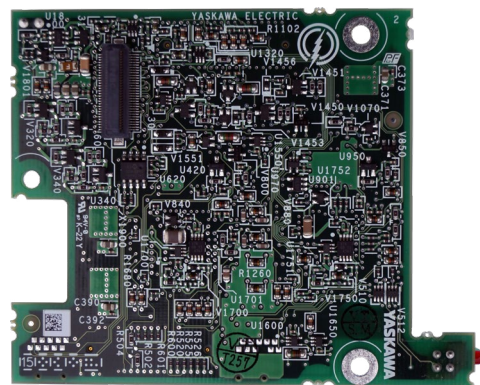


FSoE Safety Card

When it comes to safety, compromises are not an option. That's why Yaskawa Sigma-7 servo drives easily integrate into FSoE safety concepts. From the 14 available safety functions, 10 of them can work in parallel. This allows secure and easy control even for the most complex solutions. Sigma-7 safety cards enable high performance safe motion for your application.

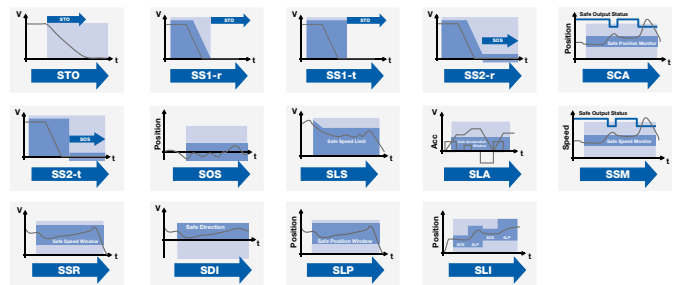
FEATURES

- 14 freely configurable safety functions up to SIL3/PLe
- Up to 10 safety functions can be active in parallel
- Full safety function access over FSoE
- Quick and easy parametrization with certified Yaskawa configuration tool
- Internal parameter and plausibility check ensuring high integrity safety solutions



Freely configurable safety functions

Sigma-7 safety cards enable cascading of safety functions. Depending on the safety requirements of the machine, the sequence of safety functions can be freely selected. This facilitates adaptation to sophisticated machine concepts and reduces complexity during planning and commissioning.



Seamless integration



Sigma-7 safety cards integrate seamlessly into the Servopack. Therefore, both safe and non-safe axes have the same dimensions resulting in easier planning and maximum flexibility.

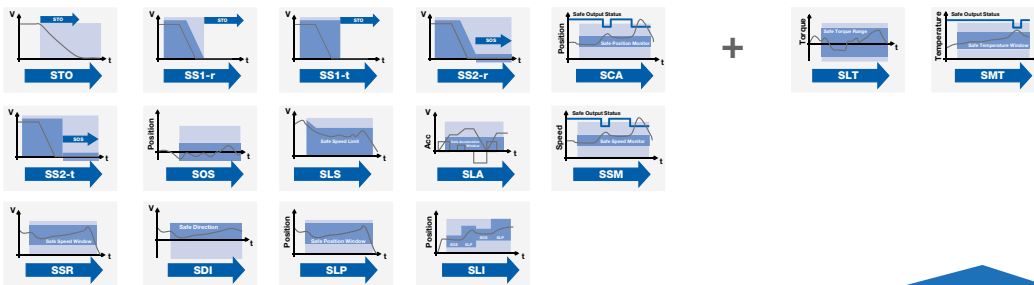
with optional I/Os

The safety card with attached I/O terminal block provides even more planning freedom and flexibility. The terminal block adds 6 safe digital I/O and 2 safe analog input channels to the card. Additionally, it enables the functions Safe Motor Temperature and Safely Limited Torque and offers a total of 16 safety functions.



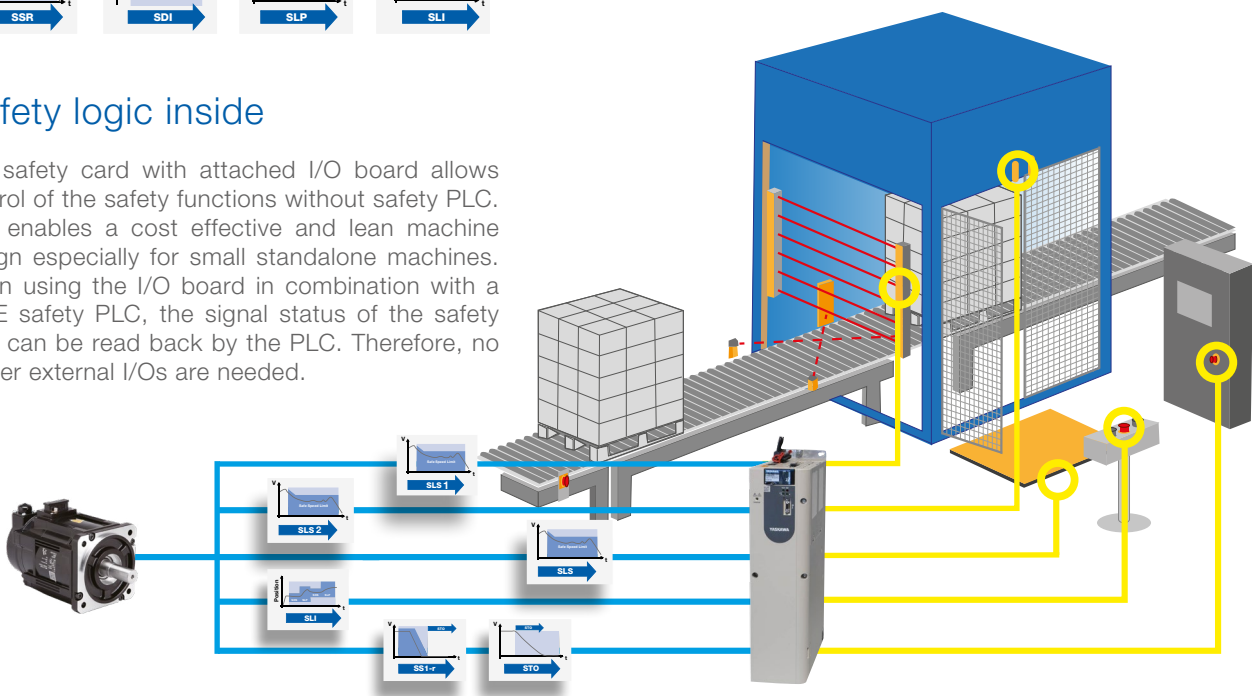
ADDITIONAL FEATURES

- 6 safe digital I/O channels and 2 SIL2/PLd capable analog I/Os onboard
- PT1000 input for **Safe Motor Temperature** function
- Analog torque sensor input for **Safely Limited Torque**
- Activation of safety features without Safety PLC

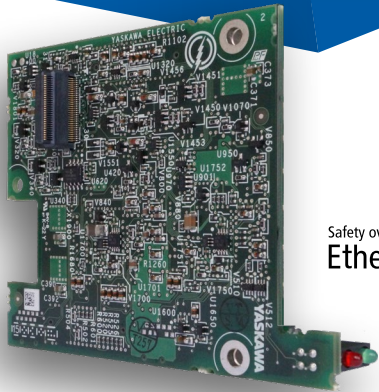


Safety logic inside

The safety card with attached I/O board allows control of the safety functions without safety PLC. This enables a cost effective and lean machine design especially for small standalone machines. When using the I/O board in combination with a FSoE safety PLC, the signal status of the safety card can be read back by the PLC. Therefore, no further external I/Os are needed.



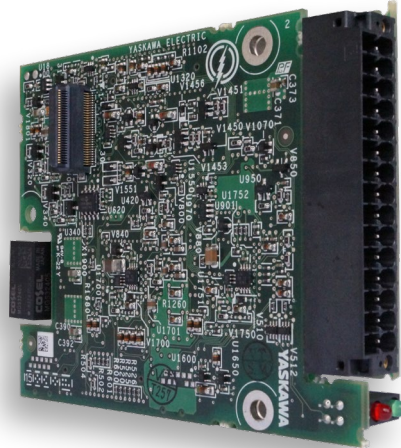
Overview



Safety over
EtherCAT®

SGD7S-OSB01A

- 14 safety functions:
STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA
- 10 safety functions can work in parallel
- FSoE certified



Safety over
EtherCAT®

SGD7S-OSB02A

- 16 safety functions:
STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SLT, SMT
- 10 safety functions can work in parallel
- I/O Board
 - 6 I/O dual channel SIL3/PLe Cat3
 - 4 safe digital input/output channels
 - 1 safe digital input
 - 1 safe analog input channel (0-10 V) / safe digital input
 - 2 I/O single channel SIL2/PLd Cat3
 - 1 analog input channel (PT1000)
 - 1 analog input channel (4-20 mA)
- FSoE certified

Advanced Safety Modules

Material No.	Model Code	Description
10108188	SGD7S-OSB01A	Advanced Safety Module FSoE *
10108189	SGD7S-OSB02A	Advanced Safety Module FSoE and I/O *

Additional Accessories

Material No.	Model Code	Description
10003544	JZSP-P7R2-8-E	Mounting rail for option cards Sigma-7 400 V
10107611	JJSP-7CN21	Safety I/O Connector (for SGD7S-OSB02A only)
100-047-963	SGDV-OFA01	Feedback option module for Yaskawa encoder
10062649	SGDV-OFB04A	Feedback option module for resolver
10098112	JZDP-Z002-000	20-bit absolute encoder

* In combination with EtherCAT® Servopacks with Function type FT91.

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YEU_MuC_Sigma7_OSB_EN_v1

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