

FS-PLC04 | safety programmable logic controller

Area of application

The FS-PLC04 is a safety PLC with FSoE master functionality and safe digital inputs and outputs. With this safety PLC all currently common safety applications for machines can be realized.



The FSoE master ...

- ... supports up to 20 master-slave connections
- ... supports safety parameters
- ... supports Safety Related Application (SRA) parameters
- ... is configured via FS-PLC Designer
- ... communicates via EtherCAT as slave

The Safety programmable logic controller ...

- ... is configured and programmed using FS-PLC Designer
- ... is programmed using function block diagram (FBD) according to EN 61131-3
- ... provides simple and complex function blocks (PLCopen)
- ... has 16 digital inputs, which fulfill the safety level SIL3 and PLe/Kat.4
 when two input channels are used as a pair
- ... has 6 digital outputs which already fulfill safety level SIL3 and PLe/Cat.4
 with single-channel use (depending on the load switching)
- ... can also be used as a safe stand-alone PLC without FSoE and EtherCAT

The PLC project consists of:

- (1) EtherCAT slave configuration
- (2) FSoE master configuration
- (3) Local IO configuration and
- (4) the PLC program.

The transfer of the PLC project is done via **USB** or **EtherCAT** to the FS-PLC04 target.



Technical data

Power supply	
Logic	24 V DC (SELV or PELV)
Inputs	24 V DC (SELV or PELV)
Outputs	24 V DC (SELV or PELV)
Operating conditions	
ambient temperature	0 °C bis +55 °C
relative air humidity	5 % to 95 %, non-condensing

Conformity	
Machinery Directive	2006/42/EG
EMC Directive	2014/30/EU
Safety indices	
EN ISO 13849-1	Category 4, PL e
EN 61508	SIL 3

Housing variants

Variant I

- Can be mounted in customer's housing or control cabinet
- Cost optimized
- Connection via pre-assembled cable harness
- Best for series production
- Dimensions: 142mm x 90mm x 21mm (HxWxD)



Variant II

- For mounting in control cabinet or comparable housing with protection class IP54
- Flexible mounting possible without DIN rail
- Dimensions: 140mm x 24mm x 98mm (HxWxD)



Variant III

- For **mounting in control cabinet** or comparable housing with protection class IP54
- Space-saving mounting on DIN rail
- Dimensions: 131mm x 24mm x 98mm (HxWxD)



Variant IV

- Protection class IP65
- Can be mounted directly on the machine
- Connection via standardized M12 round connectors
- Dimensions: 160mm x 145mm x 80mm (HxWxD)

