Safe small controllers PNOZmulti 2 – flexible architectures with EtherCAT FSoE

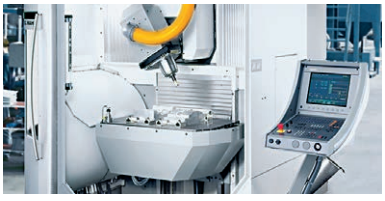
NEW

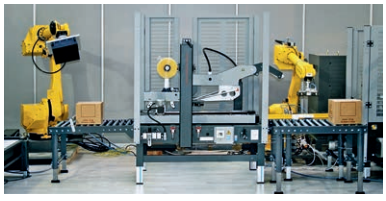
For efficient production, it should be possible to seamlessly integrate the safety concept into the machine concept. The open communication system EtherCAT in combination with the safe protocol Safety over EtherCAT FSoE (= FailSafe over EtherCAT) that is supported from software version 11.3 by the safe configurable small controller PNOZmulti 2 makes a major contribution to the transfer of control and safety-related information. A new safe fieldbus module is available that you can use in your plant and machinery both as the FSoE MainInstance as well as the FSoE Subordinate-Instance, but also as the EtherCAT SubordinateDevice [1] – depending on the requirement – in combination with the base unit PNOZ m B1. The configuration is performed in the software tool PNOZmulti Configurator. Up to 4 MainInstance-MainInstance and up to 60 MainInstance-SubordinateInstance connections [1] are available to you. With PNOZmulti 2 as FSoE MainInstance [1], it is easy to implement safety-related networking with the safe radar sensor PSENradar and safe drive technology PMC – both with FSoE functionality.

Your benefits at a glance

- Seamless integration of the safety concept into the machine concept
- Flexible expansion options of the safety-related plant structure
- Ready-made, certified safety solutions for a high level of safety
- Numerous diagnostic options
- “One-cable solution” with safe sensor and drive technology from Pilz

You can flexibly implement safe plant structures with a “one-cable solution” on the fieldbus level. This helps you to minimise your wiring effort and save costs. Comprehensive diagnostic options also ensure minimal downtimes.





Configurable safe small controllers PNOZmulti 2 – PNOZ m EF EtherCAT FSoE

PNOZ m EF
EtherCAT FSoE

PNOZmulti
Configurator

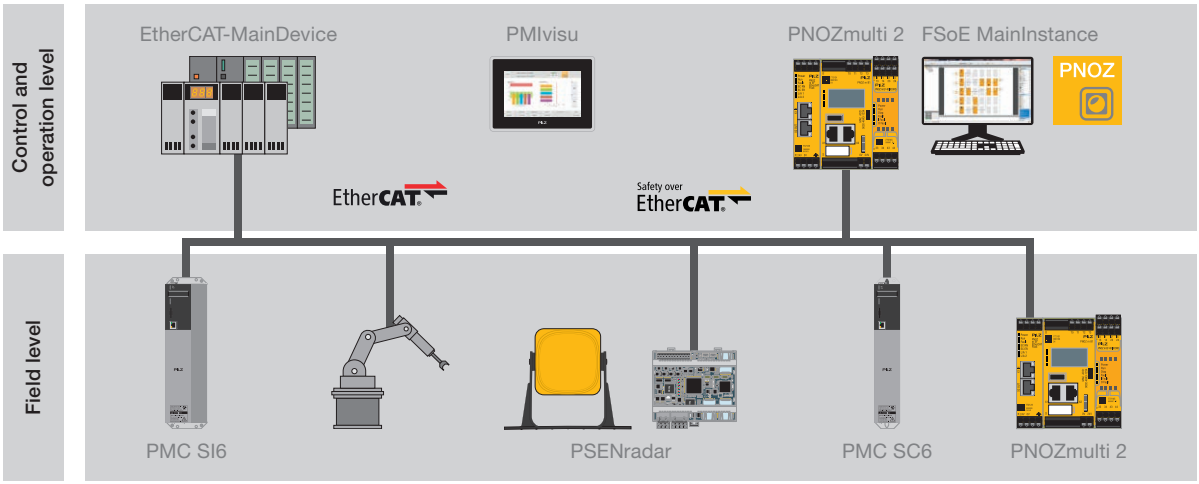
PSENradar

PMC SC6/SI6

Type	Technical features	Order number
PNOZ m EF EtherCAT FSoE	Safe communication module for connection to the communication system EtherCAT in combination with the safe protocol Safety over EtherCAT FSoE (= FailSafe over EtherCAT) together with the base unit PNOZ m B1 ▸ Use possible as EtherCAT FSoE MainInstance, as FSoE SubordinateInstance or as EtherCAT SubordinateDevice [1)] ▸ Up to 4 MainInstance-MainInstance and up to 60 MainInstance-SubordinateInstance connections [1)] ▸ In total max. 512 bit data exchange with subscriber (MainInstance or SubordinateInstance) ▸ Safety-related data: Depending on the application up to PL e/ SIL CL 3 ▸ Dimensions (H x W x D) in mm: 101.4 x 22.5 x 115 ▸ Certifications: CE, EAC (Eurasia), TÜV, UKCA	▸ PNOZ m EF EtherCAT FSoE: 772123 - Plug-in spring-loaded terminals: 783542 - Plug-in screw terminals: 793542 ▸ PNOZ m B1: 772101 - Plug-in spring-loaded terminals: 751016 - Plug-in screw terminals: 750016
Software tool PNOZmulti Configurator, from version 11.3	▸ Import of ESI files ▸ Fieldbus configuration via ESI files ▸ Definition of SubordinateInstances in one catalogue (list view)	Basic software is free of licensing costs, information at www.pilz.com/pnozmulti-tools
PSENradar	Evaluation unit PSEN rd1.x SD I/O FSoE analysing unit and 4 sensors to choose from; Additional information in the PSENradar flyer	▸ Evaluation unit: 6B000007 ▸ Sensors: 6B000002, 6B000003, 6B000015, 6B000009
PMC SC6/SI6	Single or double-axis controller for synchronous, servo and asynchronous motors ▸ Drive-integrated safety functions STO and SS1 via FSoE to PL e ▸ Integrated EtherCAT or PROFINET communication ▸ Integrated brake control ▸ Number of digital inputs: 8 ▸ Dimensions (H x W x D) in mm: From 45 x 343 x 265 ▸ Certifications: CE, UKCA, UL Listed	▸ PMC SC6A162R/EC 2x 10A: 8C000071 ▸ PMC SI6A261Z/EC 1x 22A: 8C000043 ▸ And more, see E-Shop

[1)] Terminology changes in acc. with www.ethercat.org/en/faq.html#18642>

Old term	New term	New – abbreviated
(EtherCAT) Master device	MainDevice	MDevice
(EtherCAT) Slave device	SubordinateDevice	SubDevice
FSoE-Master (instance)	FSoE MainInstance	FSoE MInstance
FSoE-Slave (instance)	FSoE SubordinateInstance	FSoE SubInstance



PNOZmulti 2 communication modules:

Webcode: web225353

PSENradar:

Webcode: web199925

Drive technology PMC:

Webcode: web227756

Online information at www.pilz.com