

The Team Leader



...for every application



Printing industry,
paper industry



Timber industry
+ Sawmills
+ Pelleting systems



Systems for generating energy
+ wind power
+ solar power
+ hydroelectric power stations



Chemical industry,
pharmaceutical industry,
cleanrooms



Packaging industry,
beverage industry



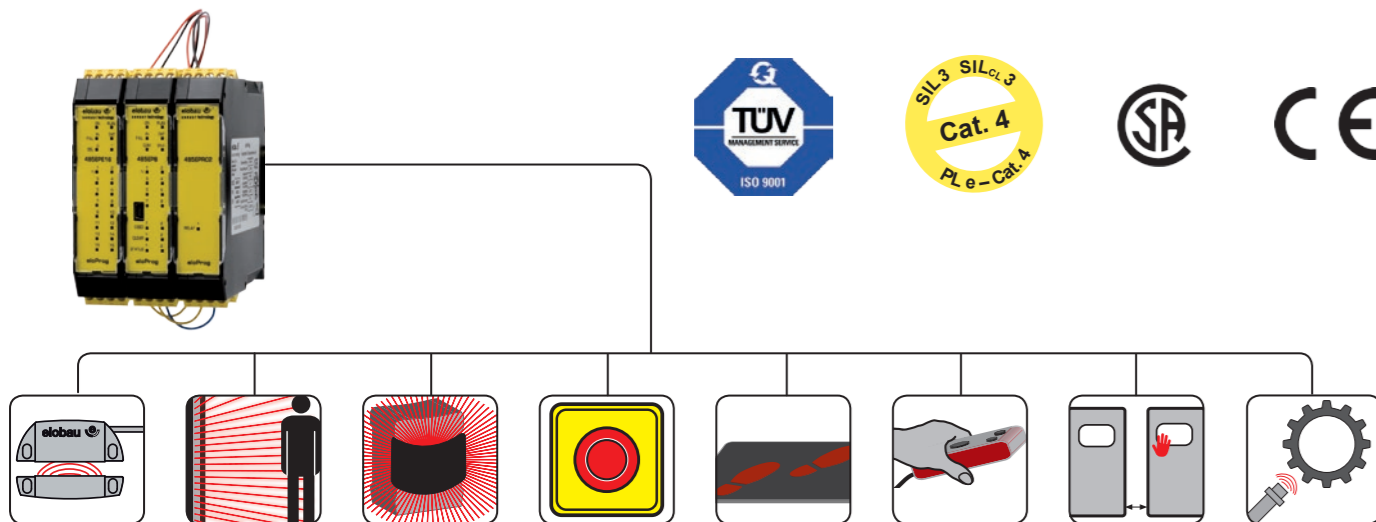
Food industry



Logistics

Monitors, diagnoses,
communicates - everywhere

eloProg manages all safety components - safely



elobau sensortechnology The company

As an expanding, globally active, medium-sized family business with more than 700 employees, we develop and manufacture sensor technology and operating systems for the machine construction and off-highway vehicle sectors. Our high-quality products are characterised by a high vertical range of manufacture and are manufactured in a carbon-neutral manner in Germany. With our innovative, contactless sensor products, we support our customers worldwide in constructing machines and vehicles that set standards in terms of performance, operating comfort, safety and quality.

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elobau 
sensor technology
made in Germany

What she thinks, works. What she plans succeeds. What she says, gets done. Our operations manager leads every difficult mission to a successful conclusion. With a cool head, she combines the strengths of the entire team, uses their individual strengths where necessary, and solves demanding tasks with consideration and absolute reliability.



eloProg - the modular safety solution...

For enhanced safety with maximum flexibility

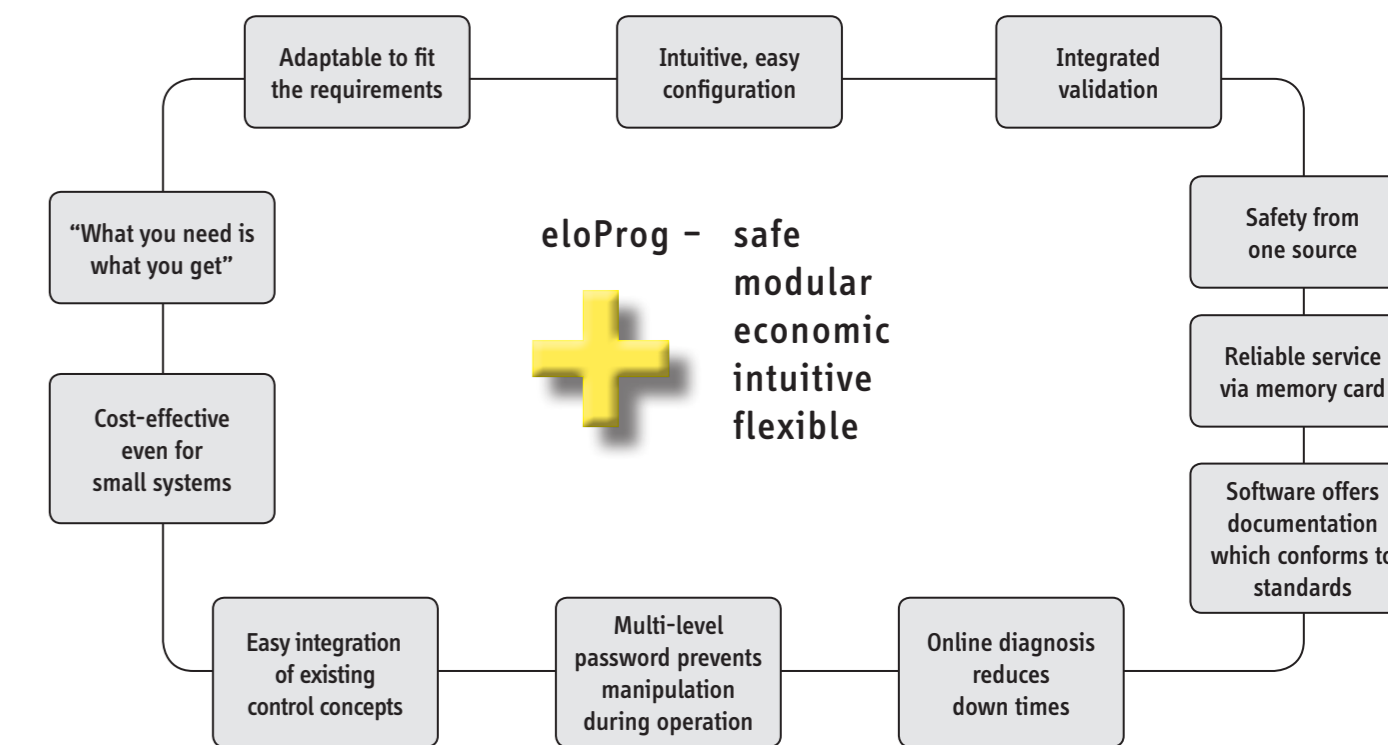
eloProg is used to flexibly monitor complex safety functions in systems or machines. All safety functions, such as emergency stop and 2-hand controls can be configured easily and quickly via the eloProg configuration software.

Even so, the eloProg safety system is not overloaded, as the modular safety system means it is adapted to exactly suit your requirements. This guarantees you a cost-effective and flexible solution, either in a new installation or a retrofit.



eloProg

The modular safety solution
Monitors. Diagnoses. Communicates.



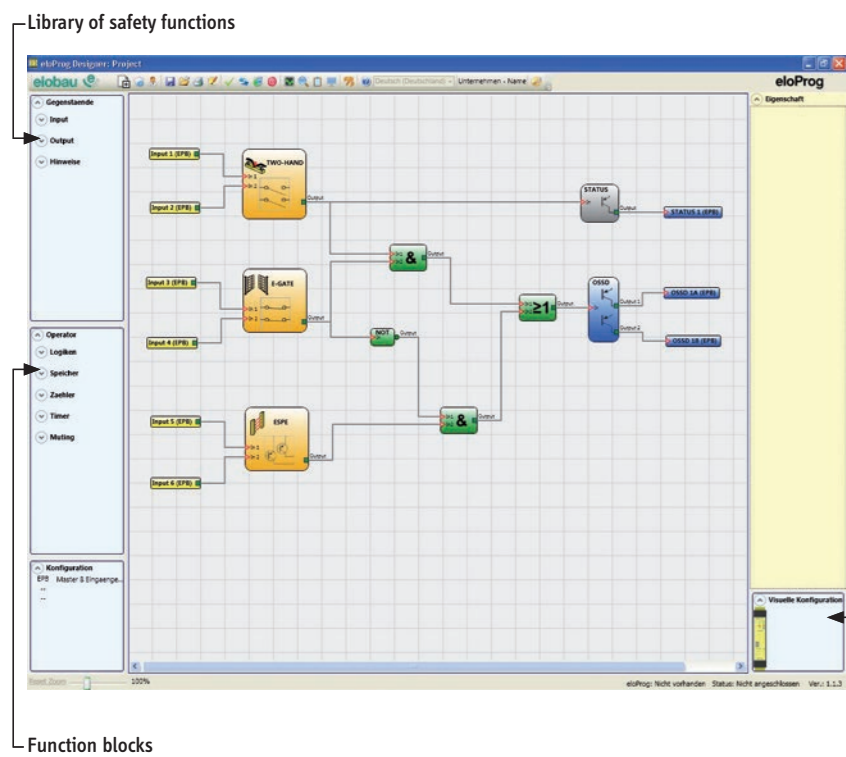
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Intuitive software

For easy configuration



- + User-friendly configuration software
- + All parameters can be configured via existing function blocks
- + All safety functions can be added by Drag & Drop
- + The finished project can be tested with the integrated validation function
- + 2 level password offers the planner protection from unauthorised access, while system users can work with the project with a level 1 password
- + Real-time monitoring of the I/O status via USB interface

Configuration of the respective block

The eloProg safety functions

E-STOP
E-STOP checks the status of the In_x inputs of an E-STOP device. Detection of potential short circuits via the test signal. Configurable inputs: 1 NC or 2 NC.

STAND STILL AND SPEED CONTROL
SPEED CONTROL monitors the speed of a device via the output's reaction to the measured speed exceeding a specific switching threshold.

FOOTSWITCH (safety pedal) checks the status of the In_x inputs of a safety device with a pedal. Detection of potential short circuits via the test signal. Configurable inputs: 1 NC or 1 NO or 2 NC or 1 NO + 1 NC.

MOD-SEL (safety switch) checks the status of the In_x inputs of a mode selector (up to 4 inputs). Configurable inputs for 2, 3 or 4 positions.

E-GATE (for moveable guards) checks the status of the In_x inputs of a device for moveable guards or safety passes. Detection of potential short circuits via the test signal. Configurable inputs: 2 NC or 1 NC + 1 NO.

ESPE (light barrier) checks the status of the In_x inputs of a safety light barrier or of a laser scanner with two OSSD outputs.

PHOTOCELL (safety photocell) checks the status of an input of a non-automatically controlled optoelectronic safety photocell.

TWO-HAND (two-handed control) checks the status of the In_x inputs of a two-handed control device. Detection of potential short circuits via the test signal. Configurable inputs: 2 NC or 2 NO + 2 NC.

485EP. eloProg modules

Maximum safety for your system

eloProg input expansions 485EP_{E08}, 485EP_{E12} and 485EP_{E16}

- + 8 safety inputs (485EP_{E08})
- + 12 safety inputs (485EP_{E12})
- + 16 safety inputs (485EP_{E16})
- + 4 test outputs for sensor monitoring
- + 8 test outputs to monitor sensors for connecting up to four safety mats

The input expansions make an additional 8, 12 or 16 safety inputs available respectively. The maximum number of safety inputs that can be achieved is 128.

eloProg base module 485EP_B

- + 8 safety inputs
- + 2 safe transistor outputs (pairs) / 400 mA
- + 4 test outputs for sensor monitoring
- + 2 control outputs
- + 2 EDM (External Device Monitoring) (start/restart)

The base module is a configurable safety controller that can be used as stand-alone device. Communication with additional modules through an internal high-speed bus. The configured safety function can be transferred directly via USB interface. The base module also features a memory card slot.

eloProg output expansions 485EP_{A02} and 485EP_{A04}

- + 2 safety outputs (485EP_{A02}) (pairs) / 400 mA
- + 4 safety outputs (485EP_{A04}) (pairs) / 400 mA
- + 2 control outputs
- + 2 EDM (External Device Monitoring) (start/restart)

The output expansion extends the number of safe OSSD outputs (output signal switching device) in steps of two or four. The maximum number of OSSD safety inputs can be increased to 16 pairs.

eloProg rotational speed monitoring modules 485EP_{S..}

- + Various modules for the connection of one or two HTL-/TTL-/ or sine/ cosine encoders and/or two proximity sensors

The rotational speed modules are used for the safe monitoring (up to PLE) of standstill, underspeed, overspeed or a defined rotational speed window. In addition, up to four switching thresholds can be configured per axis.

eloProg relay modules 485EP_{R02} und 485EP_{R04}

- + 2/4 NO relay outputs, 1/2 NC relay outputs, max. 240V AC, max. 6A
- + 1 EDM output (external device monitoring) for feedback to the base module
- + connection to base module via connection terminals (no T-connector necessary)

485EP_{R04S00B} and 485EP_{R04S08B}

- + 4 NO relay outputs, max. 240V AC, max. 6A, + 4 EDM inputs (external device monitoring)
- + 8 semiconductor control outputs, 100mA (485EP_{R04S08B} only)
- Connection to the base module via 350EPT T-connector

The relay modules have 2 NO + 1 NC or 4 NO + 2 NC force-guided relay contacts. Each are capable of handling 6 A and 250 V AC. In addition, there are 8 electronic control outputs available for diagnostic purposes with type 485EP_{R04S08B}.

eloProg input/output module 485EP_{E08A02}

- + 8 safety inputs
- + 2 safe transistor outputs (pairs) / 400 mA
- + I/O expansion
- + 4 test outputs for sensor monitoring
- + 2 control outputs
- + 2 EDM (External Device Monitoring) (start/restart)

The input/output module expands the inputs and outputs, the test outputs and control inputs of the base module.

eloProg fieldbus modules 485EP_{FPD}, 485EP_{FDN}, 485EP_{FCO}, 485EP_{FEC}, 485EP_{FEI}, 485EP_{FPN}, 485EP_{FMR}, 485EP_{FMT}, 485EP_{FIEI2}

- + Profibus DP
- + DeviceNet
- + CANopen + Profinet
- + Modbus RTU
- + EtherCat
- + Ethernet IP
- + 2x Ethernet IP
- + Modbus TCP

USB interface module 485EP_{FUB}

The fieldbus modules enable direct connection to the most common fieldbus modules for bidirectional data transmission and diagnosis.

eloProg 485EPT. bus transfer module

- + decentralised positioning of eloProg I/O modules
- + simple connection via screw terminals
- + minimal and cost-effective wiring thanks to bus connection
- + bus cable length of up to 100 m
- + up to six module stations
- + bus transfer modules do not count as expansion modules

The 485EPT. bus transfer modules enable the decentralised positioning of eloProg I/O modules. The 485EPT1 module can be used at each end of the connection, and the 485EPT2 module can be used in the middle. A maximum bus length of 100m can be achieved with up to 6 eloProg modules.

eloProg - all modules at a glance

Type	Module	In _x functions	Out _x functions	Order number
485EP _B	eloProg base module	8 safety inputs	2 safe transistor outputs (pairs)	485EP _B
485EP _{E08A02}	eloProg input/output module	8 safety inputs	2 safe transistor outputs (pairs)	485EP _{E08A02}
485EP _{E08}	eloProg input module	8 safety inputs		485EP _{E08}
485EP _{E12}	eloProg input module	12 safety inputs		485EP _{E12}
485EP _{E16}	eloProg input module	16 safety inputs		485EP _{E16}
485EP _{A02}	eloProg output module		2 safe transistor outputs (pairs)	485EP _{A02}
485EP _{A04}	eloProg output module		4 safe transistor outputs (pairs)	485EP _{A04}
485EP _{R02}	eloProg relay module		2 relay outputs 2 × 2 NO + 1 NC	485EP _{R02}
485EP _{R04}	eloProg relay module		4 relay outputs 4 × 2 NO + 1 NC	485EP _{R04}
485EP _{R04S00B}	eloProg relay module		4 relay outputs 4 × 2 NO, bus-compatible	
485EP _{R04S08B}	eloProg relay module		4 relay outputs 4 × 2 NO, 8 control outputs, bus-compatible	
485EP _{T1}	eloProg bus transfer module			485EP _{T1}
485EP _{T2}	eloProg bus transfer module			485EP _{T2}
485EP _{FPD}	eloProg fieldbus module		Profibus DP	485EP _{FPD}
485EP _{FDN}	eloProg fieldbus module		DeviceNet	485EP _{FDN}
485EP _{FCO}	eloProg fieldbus module		CANopen	485EP _{FCO}
485EP _{FEC}	eloProg fieldbus module		EtherCat	485EP _{FEC}
485EP _{FEI}	eloProg fieldbus module		Ethernet IP	485EP _{FEI}
485EP _{FPN}	eloProg fieldbus module		Profinet	485EP _{FPN}
485EP _{FIEI2}	eloProg fieldbus module		2x Ethernet IP	485EP _{FIEI2}
485EP _{FMR}	eloProg fieldbus module		Modbus RTU	485EP _{FMR}
485EP _{FMT}	eloProg fieldbus module		Modbus TCP	485EP _{FMT}
485EP _{FUB}	eloProg interface module		USB	485EP _{FUB}
485EP _{S1H}	eloProg speed module	1 HTL encoder + 2 proximity sensors		
485EP _{S1S}	eloProg speed module	1 sin/cos encoder + 2 proximity sensors		
485EP _{S1T}	eloProg speed module	1 TTL encoder + 2 proximity sensors		
485EP _{S2H}	eloProg speed module	2 HTL encoders + 2 proximity sensors		
485EP _{S2N}	eloProg speed module	2 proximity sensors		
485EP _{S2S}	eloProg speed module	2 sin/cos encoders + 2 proximity sensors		
485EP _{S2T}	eloProg speed module	2 TTL encoders + 2 proximity sensors		
350EPS	eloProg memory card	Easy transmission / overwriting of configurations		350EPS
350EPT	eloProg T connector	Bus connection of the individual modules		350EPT
350EPU	eloProg USB cable, 3m long	Data transmission and real-time monitoring		350EPU

eloProg accessories

eloProg memory card 350EPS
+ simple data transmission without a PC

eloProg T connector 350EPT
+ 5-channel high-speed bus
+ no wiring necessary thanks to plug connections

eloProg 350EPU USB cable
+ simple data transmission with a PC