SAFETY PRODUCTS

Programmable safety controller

Pluto

Pluto is a cost effective, powerful and compact programmable safety controller used in a variety of applications: in large and small systems, for process and functional safety, and even on trains.

Pluto can control most types safety devices on the market, as well as ABB Jokab Safety DYNlink safety devices, analog sensors, encoders, contactors, valves and many more. Programming is done easily in the complimentary software, Pluto Manager.

The models with safety bus communication simplify the design of safety systems, thanks to our All-Master concept. A wide range of gateways allows communication with other networks and also remote monitoring of a Pluto system. Some models also offer AS-i safety.

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Great flexibility
Up to 32 Pluto units can exchange data on the same safety bus, and the unique All-Master system allows simple scaling, splitting and modification.

Powerful yet compact
Unexpected features for its size, like real programming and speed monitoring, enables replacement of more complex PLC systems in some applications.

More sensors and less cabling
The DYNlink solution allows series connection of up to 10 safety devices on each input. StatusBus and light button feature also reduces cabling to a minimum.

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Programming software free of charge
Pluto Manager is an easy to use PC based programming software provided free of charge.

Easy programming
Ready-made TÜV approved function blocks for safety functions make it easy to reach PL e/SIL3. Ladder logic and text programming allow the design of more advanced functions and the control of complete machines.

Communication with external networks
Pluto gateways provide a two-way communication between the Pluto safety bus and other field buses.

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Optimum interface

Continuous operation

Easy modification
Easy and quick replacement of units without any configuration.

Flexible monitoring
Online monitoring from any Pluto in the system and remote monitoring and control with an Ethernet gateway.
Pluto ordering table
Pluto is available in different models depending on the needs of your application. Optional features includes bus communication, AS-i bus, high resolution analog inputs, current monitoring and adaption for harsh environments.

<table>
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<th>AS-i</th>
<th>Safety bus</th>
<th>Failsafe relays</th>
<th>Failsafe transistors</th>
<th>Analog inputs (max)</th>
<th>Fast counter inputs (max)</th>
<th>Status bus inputs (max)</th>
<th>Non failsafe outputs (max)</th>
<th>Width (mm)</th>
<th>Type</th>
<th>Order code</th>
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Pluto D45

Technical data

Approvals

Railway: TÜV Rheinland InterTraffic

Conformity

CE 2006/42/EC - Machinery
2014/30/EU - EMC
2011/65/EU - Rohs

Functional safety data

- EN 61508:2010
  - SIL3: $2.00 \times 10^{-9}$
  - PFH$_\text{Failsafe relay outputs}$: $1.5 \times 10^{-9}$

  - SILCL3: $2.00 \times 10^{-9}$
  - PFH$_\text{Failsafe transistor outputs}$: $1.5 \times 10^{-9}$

- EN ISO 13849-1:2008
  - PL e/Cat.4: $2.00 \times 10^{-9}$
  - PFH$_\text{Failsafe relay outputs}$: $1.5 \times 10^{-9}$

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