

Pluto network solution

A powerful and flexible safety PLC solution

- **Powerful and flexible**
- **Cost effective**
- **Easy to use**
- **Compact**



Pluto

Pluto is a powerful but simple to use programmable safety controller with many features that can handle all common sensor types on the market. It is capable of handling multiple separate safety functions on a machine. Several Plutos can be connected together in a network and since it is an all-master system, all Plutos can read the inputs of each other. This also enables very simple replacement of a Pluto.

Available inputs and outputs

Each Pluto has up to 40 safe inputs and 6 safe outputs, and up to 16 non-failsafe outputs for control signals. You can connect multiple sensors in series on each input, and Pluto can handle most common safety interfaces for sensors: traditional voltage free contacts, OSSD signals and **DYNlink**. DYNlink allows for longer and cheaper cables compared to OSSD, and it is easy to connect non-DYNlink devices using Tina adapters.

What is needed?

In order to create a Pluto network solution you need:

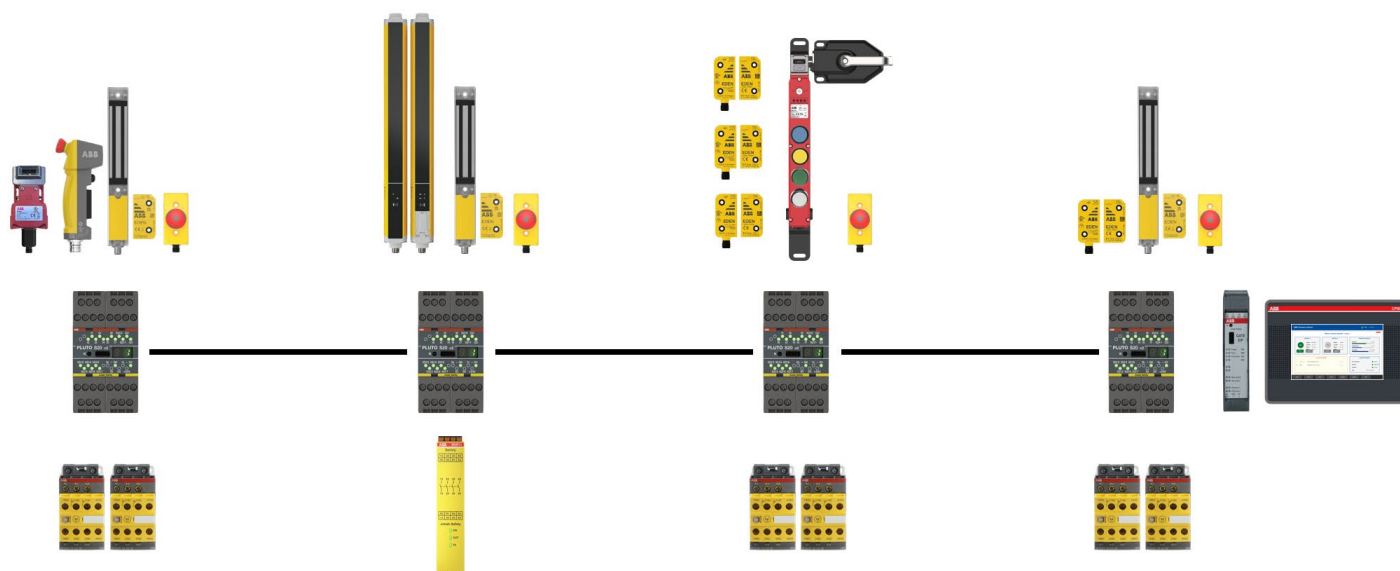
- A Pluto model with bus interface (B20, B46 or D45)
- Sensors and cables
- IDFIX-R or -RW (for network identification)
- Pluto bus cable
- Programming cable for Pluto
- Programming software Pluto Manager (can be [downloaded free of charge](#)). A license is also required, which can be obtained free of charge from your sales contact.

When to use a Pluto network solution?

- If you need more I/O's than a single Pluto can handle. (Up to 32 Pluto units can share the same bus.)
- If you want to connect gateways, in order to communicate with other field buses/PLC systems.
- If you need encoder solutions.

Which functional safety level can be achieved?

This depends on the sensors used and how they are connected. It is possible to reach the highest safety level (PL e / SIL3).





Pluto B46



Adam DYN-Info M12-5



Eva general code



MKey5 SSH



Smile 11 EA Tina



Magne 4 OSSD-Info



IDFIX-R



AFS09

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Select suitable Pluto programmable safety controller

Safety bus	Failsafe outputs	Failsafe inputs (max)	Analog inputs (max)	Fast counter inputs (max)	StatusBus inputs (max)	Non failsafe outputs (max)	Width mm	Type	Order code
Yes	4	16	1	-	4	8	45	Pluto B20	2TLA020070R4600
	6	40	3	-	4	16	90	Pluto B46	2TLA020070R1700
	6	39	8	4	4	15	90	Pluto D45	2TLA020070R6600

See [Safety Catalog](#) for more information.

Select safety sensors for your application

Description	Type	Order code
Eden non-contact safety sensor adapted for DYNlink interface. Male part.	Adam DYN-Info M12-5	2TLA020051R5100
Eden non-contact safety sensor. Interchangeable female part.	Eva General code	2TLA020046R0800
MKey mechanical key switch with plastic housing, stainless steel head and 12 N holding force.	MKey5 SSH	2TLA050003R0100
Smile emergency stop with M12-5 male connector for DYNlink.	Smile 11 EA Tina	2TLA030050R0000
Magne safe interlock with integrated Adam OSSD. (Needs a separate Eva sensor.)	Magne 4 OSSD-Info	2TLA042022R4600
Magne anchor plate with permanent magnet.	Magne Anchor 23E	2TLA042023R0420

Note that ABB has a wide range of alternative sensors. See [Safety Catalog](#) for options.
Make sure to also add suitable accessories such as mounting plates and cables for your sensors.

Pluto accessories

Description	Type	Order code
Pre-programmed unique identification number.	IDFIX-R	2TLA020070R2000
Programmable identification number, i.e. the user can choose identification number.	IDFIX-RW	2TLA020070R2100
Pluto programming and on-line monitoring cable. For a PC USB port.	Pluto cable USB	2TLA020070R5800
Bus cable for Pluto safety bus, 2 x 0.75 mm ² . Halogen free. 50-meter ring.	PCABLE-050-HF	2TLA020070R8605

Note that alternative cable types and lengths exist. See [Safety Catalog](#) for options.

Optional accessories

Description	Type	Order code
Expansion relay for more outputs	BSR11	2TLA010040R0200
Profinet Gateway for communication with other systems	GATE-PN	2TLA020071R9300
CP604 control panel for operator interaction and system status information	CP604	1SAP504100R0001

Note that alternative models and accessories exist. See [Safety Catalog](#) for options.

Safety contactors

The AFS contactors are dedicated for safety applications. See [product sheet](#) for range and selection.
Note that standard contactors also can be used if relevant requirements are met in applicable standards.

Note

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