SAFETY PRODUCTS

Programmable safety controller
Pluto

Pluto is a cost effective, powerful and compact pro-grammable safety controller used in a variety of ap-plications: 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 sim-plify the design of safety systems, thanks to our All-Master concept. A wide range of gateways al-lows communication with other networks and also remote monitoring of a Pluto system. Some models also offer AS-i safety.

Speed up installation

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 monitor-ing, enables replacement of more com-plex 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.

Optimum interface
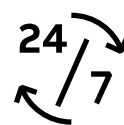
Programming software free of charge
Pluto Manager is an easy to use PC based programming software provid-ed free of charge.

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 de-sign of more advanced functions and the control of complete machines.

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

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.
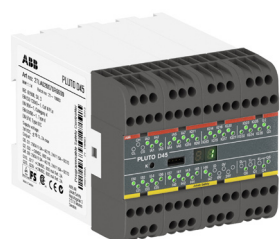
Pluto ordering table

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.

Pluto S20 v2

Pluto D45

AS-i	Safety bus	Failsafe outputs [a]	Failsafe inputs (max) [b]	Analog inputs (max) [b]	Fast counter inputs (max) [b]	StatusBus inputs (max) [b]	Non failsafe outputs (max) [b]	Width mm	Type	Order code
No	No	4	16	1 [c]	-	4	8	45	Pluto S20	2TLA020070R4700
		6	40	3 [c]	-	4	16	90	Pluto S46	2TLA020070R1800
	Yes	-	22	1 [c]	-	4	8	45	Pluto B22 [e]	2TLA020070R4800
		2	4	-	-	2	2	45	Pluto O2 [f]	2TLA020070R8500
		4	16	1 [c]	-	4	8	45	Pluto A20 [g]	2TLA020070R4500
									Pluto B20	2TLA020070R4600
				4 [d] + 1 [c]	-	4	8	45	Pluto D20	2TLA020070R6400
									Pluto D20 (Harsh Env) [h]	2TLA020070R6401
		6	40	3 [c]	-	4	16	90	Pluto B46	2TLA020070R1700
			39	8 [d]	4	4	15	90	Pluto D45	2TLA020070R6600
									Pluto D45 (Harsh Env) [h]	2TLA020070R6601
Yes	Yes	4	8	4 [c]	-	4	4	45	Pluto AS-i	2TLA020070R1100
		6	36	3 [c]	-	4	16	90	Pluto B42 AS-i	2TLA020070R1400

Technical data

Approvals	
	TÜV Rheinland CERTIFIED / Functional Safety Type Approved www.tuv.com ID 0600000000 CSA us
	Railway: TÜV Rheinland InterTraffic
Conformity	CE
	2006/42/EC - Machinery
	2014/30/EU - EMC
	2011/65/EU - RoHS
	EN ISO 13849-1:2008+AC:2009, EN 62061:2005, IEC 61511-1:2003+Corr.1:2004, EN 50156-1:2004, IEC 61508:2010, EN 60204-1:2006+A1:2009, EN 50178:1997, EN 61496-1:2004+A1:2008+AC:2010, EN 574:1996+A1:2008

Functional safety data

		PFH_D Failsafe relay outputs	PFH_D Failsafe transistor outputs
EN 61508:2010	SIL3	2.00×10^{-9}	1.5×10^{-9}
EN 62061:2005+A1:2013	SILCL3	2.00×10^{-9}	1.5×10^{-9}
EN ISO 13849-1:2008	PL e/Cat.4	2.00×10^{-9}	1.5×10^{-9}

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