

Certificate

ID-Number: TRRC/CB 19/123, Rev. 2

CENELEC Railway Standards

Certification Body	TÜV Rheinland Rail Certification B.V.
Owner of Certificate	ABB Jokab Safety Varlabergsvägen 11 434 39 Kungsbacka Sweden
Type designation	Pluto PLC with software version 3.8
Manufacturer	ABB Jokab Safety Varlabergsvägen 11 434 39 Kungsbacka Sweden
Bases of Assessment ¹⁾	EN 50126:1999, EN 50128:2011, EN 50129:2003, SIL 3 according to EN 50129
Annex of Certificate	1 page, 2019-03-11
Report No. / Date ²⁾	TRRC/B 19/123, 2019-02-13
Assessment Result ³⁾	The chosen safety procedures, safety methods and safety targets for the design, development and production of the Pluto Generic Programmable Logic Controller with software version 3.8 and the hardware as defined in the annex of this certificate have been assessed according to the standards EN 50126:1999, EN 50128:2011, and EN 50129:2003 with a positive result. Therefore, the necessary evidence is provided to demonstrate that the Pluto Generic Programmable Logic Controller with software version 3.8 fulfils the quantitative and qualitative safety requirements of the safety integrity level (SIL) 3 according to EN 50129 / EN 50128. The Pluto Generic Programmable Logic Controller with software version 3.8 is considered to be fit for safety-related application systems (SIL 3), provided the instructions of the safety manual (doc. id. 2TLC172003M0204_A) are followed.
Validity	Valid for the configuration of the generic Pluto PLC with hardware configuration as specified in the annex of this certificate and software version 3.8 as long as the product remains unchanged.

¹⁾ Further Codes and standards to be applied are contained in the assessment report.

²⁾ This assessment report is an integral part of the certificate.

³⁾ The assessment result is justified in detail in the assessment report.

2019-03-11

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Certifier
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Hardware configuration

Type	Safety input	Analogue 0-10V/4-20mA (0-27V)	Dual-5V	Non-scale Output	Relay output	Charge pump output	CAN	ASi-Interface	Processor	Note
A20 family, original version, Based on same hardware										
A20	16	- (1)	-	8	2	2	Yes	-	MB90F598	2
B20	16	- (1)	-	8	2	2	Yes	-	MB90F598	2
S18	16	- (1)	-	8	1	2	-	-	MB90F598	2
B18	16	- (1)	-	8	0	0	Yes	-	MB90F598	3
S20	16	- (1)	-	8	2	2	-	-	MB90F598	2
A20 family, version 2 Based on same hardware										
A20 v2	16	- (1)	Yes	8	2	2	Yes	-	MB96F346	
B20 v2	16	- (1)	Yes	8	2	2	Yes	-	MB96F346	
S20 v2	16	- (1)	Yes	8	2	2	-	-	MB96F346	
B22	22	- (1)	Yes	8	0	0	Yes	-	MB96F346	
D20	16	4 (1)	Yes	8	0	0	Yes	-	MB96F346	
Double Size Pluto, original version Based on common hardware platform. One board differs.										
B46-6	40	- (3)	-	16	4	2	Yes	-	MB90F598	2
S46-6	40	- (3)	-	16	4	2	-	-	MB90F598	2
Double Size Pluto, version 2 Based on common hardware platform. One board differs.										
B46 v2	40	- (3)	-	16	4	2	Yes	-	MB96F346	
S46 v2	40	- (3)	-	16	4	2	-	-	MB96F346	
B42 AS-i	38	- (3)	-	16	4	2	Yes	Yes	MB96F346	
D45	39	8 (3)	-	16	4	2	Yes	-	MB96F346	
C42	36	- (3)	-	16	4	2	Dual	-	MB96F346	1
ASi original version										
AS+	8	- (4)	-	4	2	2	-	Yes	MB90F343	2
ASiCAN, version 2 Based on common hardware platform. One board differs.										
AS+ v2	8	- (4)	-	4	2	2	-	Yes	MB96F346	
C16	12	- (3)	-	4	2	2	Dual	-	MB96F346	1
Pluto output module										
O2	4	-	-	2	2	-	Yes	-	MB96F346	

Note 1) Not released version
Note 2) Not produced any longer
Note 3) Planned to be substituted by B22

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