



**TYPE APPROVAL CERTIFICATE**  
No. ELE016813XG/001

**This is to certify** that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	<b>Programmable logic controller</b>
<i>Type</i>	<b>AC500-eCo / S500-eCo</b>
<i>Applicant</i>	<b>ABB - AUTOMATION PRODUCTS GMBH EPPELHEIMER STR. 82 69123 HEIDELBERG GERMANY</b>
<i>Manufacturer</i>	<b>DELTA ELECTRONICS, INC.</b>
<i>Place of manufacture</i>	<b>31-1 Xingbang Road, Guishan Industrial Zone Taoyuan County 33370 TAIWAN R.O.C.</b>
<i>Reference standards</i>	<b>"RINA Rules for the Classification of Ships - Part C, Machinery, Systems and Fire Protection - Chapter 3, Section 6 , table 1"</b>

Issued in **Hamburg** on **February 14, 2013**. This Certificate is valid until **February 13, 2018**

  
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RINA  
**Giuseppe Russo**

This certificate consists of this page and 1 enclosure



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AC500-eCo / S500-eCo

CPU's:

Common features: PM554 and PM564 can operate up to seven S500/S500-eCo I/O devices

CPU type	Program memory	Cycle time for 1000 instructions	No. and type of digital inputs	No. and type of digital outputs	No. and type of analog inputs	No. and type of analog outputs	Power supply	Ethern. interf.	Other interf.
PM554-T PM554-TP	128 kB	Binary: min 0.08 ms Word: min. 0.1 ms Floating point: min. 1.2 ms	8 x 24 V DC	6 x 24 V DC, 0.5 A max. (transistor)	none	none	24 V DC	-	Serial RS-485 interface (COM1)  Serial RS-485 interface (COM2, optional)  I/O-Bus  SD Memory Card slot (optional)
PM554-T-ETH PM554-TP-ETH			8 x 24 V DC	6 x 24 V DC, 0.5 A max. (transistor)	none	none	24 V DC	x	
PM554-R PM554-RP			8 x 24 V DC	6 x relay output, 2 A max.	none	none	24 V DC	-	
PM554-R-AC PM554-RP-AC			8 x 24 V DC	6 x relay output, 2 A max.	none	none	100 to 240 V AC	-	
PM564-T PM564-TP			6 x 24 V DC*	6 x 24 V DC, 0.5 A max. (transistor)	2 x voltage*	1 x voltage or current	24 V DC	-	
PM564-T-ETH PM564-TP-ETH			6 x 24 V DC*	6 x 24 V DC, 0.5 A max. (transistor)	2 x voltage*	1 x voltage or current	24 V DC	x	
PM564-R PM564-RP			6 x 24 V DC*	6 x relay outp. 2A max.	2 x voltage*	1 x voltage or current	24 V DC	-	
PM564-R-ETH PM564-RP-ETH			6 x 24 V DC*	6 x relay outp. 2 A max.	2 x voltage*	1 x voltage or current	24 V DC	x	
PM564-R-AC PM564-RP-AC			6 x 24 V DC*	6 x relay outp. 2 A max.	2 x voltage*	1 x voltage or current	100 to 240 V AC	-	
PM564-R-ETH-AC PM564-RP-ETH-AC			6 x 24 V DC*	6 x relay outp. 2 A max.	2 x voltage*	1 x voltage or current	100 to 240 V AC	x	
PM556-TP-ETH	512KB		8 x 24 V DC	6 x 24 V DC, 0.5 A max. (transistor)	none	none	24 V DC	x	

(\*) PM564 has 2 analog inputs which can be configured as digital inputs. If the analog inputs are configured as digital inputs, 8 digital inputs totally are available.

Digital I/O modules

DC561	16 isolated configurable Input or Output 24 VDC (Transistors)
DX561	8 isolated DI 24 V dc, 8 DO 24 V dc (Transistor)
DX571	8 isolated DI 24 Vdc, 8 digital relay output 120/240 Vac, groupwise electrically isolated
DI561	8 DI 24 Vdc
DI562	2x 8 isolated DI 24 Vdc
DI571	8 DI 120-240 Vac
DO561	8 DO 24 Vdc (Transistor)
DO571	8 relay outputs 120 / 240 Vac , 2A max
DO572	8 digital triac outputs

Analogue I/O modules

AX561	4 configurable analog inputs: -2,5... +2,5V; -5... +5V; 0...+5V; 0...+10V; 0...20mA; 4.. 20 mA 2 configurable analog outputs: -10V ... +10V; 0...20mA; 4...20 mA
AI561	4 configurable analog inputs
AI562	2 configurable analog resistance temperature detector (RTD) inputs
AI563	4 isolated configurable thermocouple (TC) inputs
AO561	2 configurable analog outputs: -10V...+10V; 0...20mA; 4...20mA





**Accessories:**

- TK503; TK504: Programming Cable
- TK506: RS-485 isolator for COM1
- MC503: SD Memory Card Adaptor
- MC502 : SD Memory Card
- TA560: Lithium Battery for Real-Time Clock of PM55x and PM56x CPUs
- TA561-RTC: Real Time Clock Adaptor
- TA562-RS: Serial RS-485 Adaptor
- TA562-RS-RTC: Serial RS-485 and Real-Time Clock Adaptor
- TA566: Wall mounting for eCo modules

**Terminal blocks:**

- TA563-9; TA563-11
- TA564-9; TA564-11
- TA565-9; TA565-11
  
- L44440901501
- L44441101501
- L44460901501
- L44461101501
- L44470901501
- L44471101501

**Technical description**

Catalogue n. 1SBC125003C0205 (2012)

**Test reports:**

- PACONSULT Report n. 09-2475B (06 July 2009)
- EMV Rhein-Neckar GmbH report n. 3893-391 (22/06/2009)
- Xiamen Products Quality Supervision & Inspection Institute; No. 2010H\_W032
- CESI Laboratory; EMC Test Report no.: SEC12-0456WM-E-E1 and -E2

**Additional Place of Production:**

WELCO TECHNOLOGY (SHENZHEN) LTD.  
WANFENG INDUSTRIAL ESTATE,  
34 THE EAST OF WANZHANG PU,  
SHAJING, BAOAN, SHENZHEN,  
GUANGDONG,  
P.R. CHINA

**Remarks:**

The equipment described on this certificate are not approved for installation on the bridge area of a ship.  
Installation on board is to be provided taking into account of the additional requirements when listed in the relevant reports.  
( eg. EMC power supply filtering , shielded enclosure , appropriate grounding, etc. )

*This certificate replace the previous certificate ELE326809CS/001 and ELE104010XG*

**Hamburg February 14, 2013**

