



Type Approval Certificate Extension

This is to certify that Certificate No. 06/20013 (E4) for the undernoted products is amended and renumbered as shown.

This certificate is issued to:

PRODUCER

ABB Automation Products GmbH
Eppelheimer Strasse 82
69123 Heidelberg
Germany

**PLACE OF
PRODUCTION**

ABB Stotz-Kontakt GmbH
Hauptstrasse 12-16
78132 Hornberg
Germany

Welco Technology (Shenzhen) Ltd.
Wanfeng Industrial Estate
34 The East of Wanzhang PU
Shajing, Baoan, Shenzhen,
Guangdong
P.R.China (terminal units only)

DESCRIPTION

Programmable Logic Controller

TYPES

AC500, S500, AC700F, S700 F, AC500-XC, S500-XC, AC500-S, AC500-S-XC

Comprising the following modules:

CPUs:

PM571, PM571-ETH, PM571-ARCNET,
PM581, PM581-ETH, PM581-ARCNET, EC581-ARCNET
PM582, PM582-ETH, PM582-ARCNET,
PM590*, PM590-ETH*, PM590-ARCNET*

Certificate No.

06/20013 (E5)

Issue Date

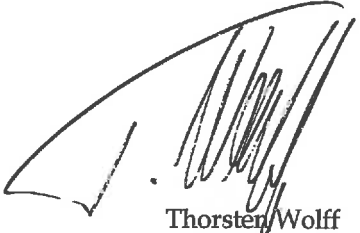
17 January 2014

Expiry Date

26 June 2016

Sheet

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Hamburg Technical Support Office
Lloyd's Register EMEA

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TYPES CONTINUED

PM591*, PM591-ETH*, PM591-ARCNET*
PM572, PM573-ETH*, PM583-ETH*, PM592-ETH*, PM783F-ETH
SM560-S* (Firmware/FW: V1.x)


Terminal Bases:

TB511*, TB511-ETH*, TB511-ARCNET*,
TB521*, TB521-ETH*, TB521-ARCNET*,
TB541, TB541-ETH, TB541-ARCNET
TB711

I/O-Modules:

DC505-FBP/DC 705F-FBP	Decentralised I/O - Station with fieldbus interface
AX522/ AX 722F	Analogue I/O with 8 channels
AX521/ AX 721F	Analogue I/O with 4 channels
AO523/ AO 723F	Analogue output
AI523/ AI 723F	Analogue input
AC522/ AC 722F	Analogue I/O with 8 channels
DI524/ DI 724F	Digital inputs
DC532*/DC 732F	Digital I/O
DC522*/DC 722F	Digital I/O 16 channels
DC523*/DC 723F	Digital I/O 24 channels
DX522/DX 722F	Digital inputs/relay outputs
DC551-CS31	Decentralised I/O - Station with CS 31-interface
DX531/DX 731F	Digital inputs/230V relay outputs
DC541	Digital inputs/ digital in-outputs
DA501/DA 701	Digital I/O module
CD522*/CD 722F	Encoder and PWM expansion module
PD501	Positioning module/analogue inputs, 24VDC-motor outputs
AI531*/ AI 731F	Analogue input module
CI501-PNIO*	Ethernet bus module
CI502-PNIO*	Ethernet bus module
CI511-ETHCAT	Ethernet-bus module

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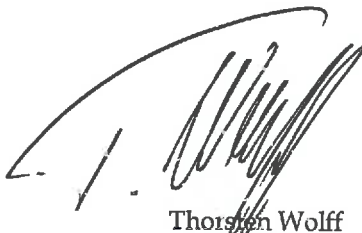
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TYPES CONTINUED

CI512-ETHCAT	Ethernet-bus module
CI590*	High availability CS31 bus module
CI592*	CS31 bus module with digital and analogue I/O's
TA524/TA 724F	Housing
CI541-DP*	PROFIBUS DP bus module
CI542-DP*	PROFIBUS DP bus module
CI581-CN*	CANopen bus module
CI582-CN*	CANopen bus module
CI504-PNIO*	PROFINET IO bus module
CI506-PNIO*	PROFINET IO bus module
AI581-S*	Analogue input module (FW: V3.x)
DI581-S*	Digital input module (FW: V3.x)
DX581-S*	Digital input/output module (FW: V3.x)
Terminal Units:	TU515, TU516*, TU531, TU532, TU541, TU542, TU505-FBP, TU506-FBP, TU551-CS31, TU552-CS31, TU507-ETH, TU508-ETH, TU 705F, TU 706F, TU 715F, TU 716F, TU 731F, TU 732F, TU509-DP*, TU510-DP*, TU517*, TU518*, TU520-ETH*, TU582-S*
Communication Couplers:	
CM572-DP/CM 572F-DP	Profibus coupler
CM575-DN	Device net coupler
CM577-ETH	Ethernet coupler
CM578-CN*	CanOpen coupler
CM574-RCOM*	Communication module RCOM/RCOM+
CM574-RS*	Communication module serial
CM579-PNIO*	Communication module
CM579-ETHCAT*	Communication module EtherCAT®
CM588-CN*	Communication module CANopen

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Accessories: MC502 memory card

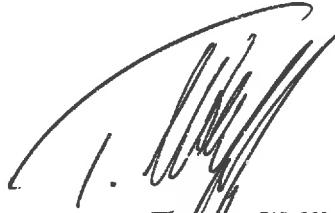
APPLICATION	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 - 2002 for general power distribution zones.
ADDITIONAL TEST	Low temperature (-25°C/16 hrs) components marked with "*"
OTHER CONDITION	The product designation of components may be followed by "XC" (extreme condition). Tests were carried out as required for the assigned environmental category if not stated otherwise.
SPECIFIED STANDARD	EN 61131-2 (2003)

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. HTS/ETS 29196-14 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 06/20013 (E4) to which this extension should be attached.

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Marine Design Appraisal Document

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E-mail: hamburg-technical-support@lr.org

Date
17 January 2014

Please quote this reference number on all future communications
HPC1320041/29196-14/TW/LK

**THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002
ISSUED TO: ABB AUTOMATION PRODUCTS GMBH
FOR: PROGRAMMABLE LOGIC CONTROLLER
TYPE APPROVAL CERTIFICATE NO. 06/20013 (E5)**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

ADDITIONAL APPROVAL DOCUMENTATION

Form LR2571	Application for Type Approval	23.11.2012
GZU 1320795	Inspection report	26.08.2013
Unnumbered	Index of contents for Shipping approval 2012 (incl. documentation listed therein available on CD-ROM)	18.01.2013

TEST REPORTS

Z10 13 01 83652 001	TÜV Certificate	01.02.2013
AH884732T	TÜV Technical Report, Revision 1.2	07.02.2013
Z10 13 01 83652 001	TÜV Certificate	08.02.2013

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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HPC1320041/29196-14/TW/LK

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.



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Part 3
Control Units

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
<p>ABB Automation Products GmbH Eppelheimer Strasse 82 69123 Heidelberg Germany</p>	<p>Programmable Logic Controller AC500, S500, AC700F, S700 F, AC500-XC, S500-XC, AC500-S, AC500-S-XC Comprising the following modules:</p>	<p>CPUs</p> <p>Terminal Bases</p> <p>Decentralised I/O - Station with Fieldbus Interface</p>	<p>ENV1, ENV2, ENV3, (2002) For installation in general power distribution zones</p> <p>Low temperature (-25°C/16 hrs) components marked with “*”</p>	<p>Expiry date: 26 June 2016</p> <p>The product designation of components may be followed by “XC” (extreme condition). Tests were carried out as required for the assigned environmental category if not stated otherwise.</p>	<p>06/20013 (E5)</p>
	<p>PM571, PM 571-ETH, PM571-ARCNET PM581, PM581-ETH, PM581-ARCNET, EC581-ARCNET PM582, PM582-ETH, PM582-ARCNET PM590*, PM590-ETH*, PM590-ARCNET* PM591*, PM591-ETH*, PM591-ARCNET* PM572, PM573-ETH*, PM583-ETH*, PM592-ETH*, PM783F-ETH SM560-S* (Firmware/FW: V1.x) TB511*, TB511-ETH*, TB511-ARCNET* TB521*, TB521-ETH*, TB521-ARCNET* TB541, TB541-ETH, TB541-ARCNET TB711 DC505-FBP / DC 705F-FBP</p>	<p>Analogue I/O with 8 channels Analogue I/O with 4 channels Analogue Output Analogue Input Digital Inputs Digital I/O Digital I/O 16 channels Digital I/O 24 channels Digital Inputs/Relay Outputs Decentralised I/O - Station with CS 31- interface Digital inputs / digital in-outputs Digital inputs / digital in-outputs Digital I/O module Encoder & PWM expansion module Positioning module / analogue inputs, 24VDC-Motor outputs Analogue input module</p>			
	<p>AX522 / AX 722F AX521 / AX 721F AO523 / AO 723F AI523 / AI 723F AC522 / AC 722F DI524 / DI 724F DC532* / DC 732F DC522* / DC 722F DC523* / DC 723F DX522 / DX 722F DC551-CS31</p>				
	<p>DX531 / DX 731 F DC541 DA501 / DA 701 CD522* / CD 722F PD501 AI531* / AI 731F</p>				
	<p>CI501-PNIO* CI502-PNIO*</p>				

W 21.1.14

Part 3
Control Units

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
CI511-ETHCAT CI512-ETHCAT CI590* CI592* TA524/TA 724F CI541-DP* CI542-DP* CI581-CN* CI582-CN* CI504-PNIO* CI506-PNIO* AI581-S* DI581-S* DX581-S* TU515, TU516, TU531, TU532, TU541, TU542, TU505-FBP, TU506-FBP, TU551-CS31, TU552-CS31, TU507-ETH, TU508-ETH, TU705E, TU706E, TU715E, TU716E, TU731F, TU732F, TU509-DP, TU510-DP, TU517, TU518, TU520-ETH CM572-DP / CM 572F-DP CM575-DN CM577-ETH CM578-CN CM574-RCOM CM574-RS CM579-PNIO CM579-ETHCAT CM588-CN MC502	Ethernet bus module Ethernet bus module High availability CS31 bus module CS31 bus module with digital and analogue I/O's Housing PROFIBUS DP bus module PROFIBUS DP bus module CANopen bus module CANopen bus module PROFINET IO bus module PROFINET IO bus module Analogue input module (FW: V3.x) Digital input module (FW: V3.x) Digital input/output module (FW: V3.x) Terminal Units Communications Couplers Profibus Coupler Device Net Coupler Ethernet Coupler CanOpen Coupler Communication module RCOM/RCOM+ Communication module serial Communication module Communication module EtherCAT® Communication module CANopen Memory Card				

W 11.1.14