![Lloyd's Register logo]

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**B&R Industrial Automation GmbH 1**
Address	B&R Straße 1, Eggelsberg, 5142, Austria
Type	Computer Systems
Description	Industrial PC Refer to the Appendix for further details.
Trade Name	Automation PC 910, 2100, 2200, 3100; Panel PC 2100, 2200, 3100; Automation Panel 9x3, 1000
Application	Marine applications for use in environmental categories ENV 1, ENV 2 and ENV 3 as defined in Lloyd's Register's Type Approval System, Test Specification No. 1 - July 2021.
Specified Standard	EN 61131-2:2007 IACS unified requirements E10 (Rev.8 Feb 2021)
Other Conditions	The DC power supply of product families APC910, AP9x3 and AP1000 is to be protected by Line Filter 5AC804.MFLT-(X)00. APC910 with the System Unit 5PC910.SX01-00 must be mounted using the vibration-damping unit (5ACCDM90.0001-000). APC2200 must be installed using the side mounting plate (Box-Style) according to the user's manual.

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A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

TA01 1.0.0

Type Approval Certificate

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 Design Appraisal Document HPC1962056-22/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

TA01 1.0.0

Appendix

Types

Automation PC 910 (APC910):

System Unit
- 5PC910.SX01-(X)00 - 1-slot APC910 system unit
- 5PC910.SX02-(X)00 - 2-slot APC910 system unit
  (X) represents a customer part no. with customized parameter settings, or designs (colours, labels and prints)

CPU Board
- 5PC900.TS17-(X)04 - Intel Core i7 6820EQ - Quad core - 2.8 GH

Main Memory
- 5MMDDR.XXXX-(X)04 - DDR4 SDRAM
  XXXX represents different main memory sizes

Bus Unit
- 5AC901.BX01-(X)XX - 1-slot APC910 bus unit
- 5AC901.BX02-(X)XX - 2-slot APC910 bus unit
  XX represents different slot configurations (PCI, or PCIe)

Heat Sink
- 5AC901.HS00-(X)00 - heat sink active
- 5AC901.HS00-(X)01 - heat sink active QM170/HM170

Fan Kit
- 5AC901.FA01-(X)00 - Fan kit for 1-slot APC910
- 5AC901.FA02-(X)00 - Fan kit for 2-slot APC910

Optional Components
- Interface board
- 5AC901.I485-(X)00 - Interface Card with RS232/422/485
- 5AC901.ICAN-(X)00 - Interface Card with CAN
- 5AC901.IETH-(X)00 - Interface Card with Ethernet
- 5AC901.IHDA-(X)00 - Interface Card with Audio Interface
- 5AC901.IPLK-(X)00 - Interface Card with POWERLINK
- 5AC901.ISIO-(X)00 - Interface Card with Relay

Graphic Option
- 5AC901.LSDL-(X)00 - SDL/DVI transmitter

PCI and PCIe Slot Card
- 5ACPCE.ETH1-(X)00 - PCIe Ethernet Card 10/100/1000

Data Storage
- 5AC901.CSSD-(X)XX - Slide-In-SSD memory (various types / sizes)
XX represents different memory sizes and different card manufactures
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes
  XX represents different card manufacturers

Slide-In
- 5AC901.SSCA-(X)00 - Slide-In SIC Adapter
- 5AC901.SDVW-(X)00 - Slide-In DVD-R/RW-drive (service only)

Front Flap
- 5AC901.FF01-(X)XX - Front Flap for 1-slot APC910
- 5AC901.FF02-(X)XX - Front Flap for 2-slot APC910
  XX represents different colours and prints

Accessory
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles

Automation PC 2100 (APC2100):

System Unit
- 5APC2100.BY44-000 - Quad Core processor E3845 and 4GB DDR3 RAM
- 5APC2100.BY48-000 - Quad Core processor E3845 and 8GB DDR3 RAM

Interface board
- 5ACCIF01.FPLS-XXX - Interface Board with POWERLINK and RS232
- 5ACCIF01.FPSC-XXX - Interface Board with POWERLINK, CAN and RS232
- 5ACCIF01.FPCC-XXX - Interface Board with POWERLINK, X2X and 2x CAN
- 5ACCIF01.FPCS-XXX - Interface Board with POWERLINK, CAN and RS485
  XXX representing different RAM options (FRAM, SRAM)

Link Transmitter
- 5ACCLI01.SDL0-000 - Link Transmitter with SDL Port

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes
  XX represents different card manufacturers

Front flap
- 5ACCFF00.0000-XXX - Front Cover
  XXX represents different door colours and prints

Accessory
- 0TB1210.3100 - 10 pin terminal block
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles

Automation PC 2200 (APC2200):

System Unit
- 5APC2200.AL18-000 - Quad Core Intel Atom E3940 1.60 GHz and 8GB SDRAM

Interface board
- 5ACCIF01.FPLS-XXX - Interface Board with POWERLINK and RS232
- 5ACCIF01.FPSC-XXX - Interface Board with POWERLINK, CAN and RS232
- 5ACCIF01.FPCC-XXX - Interface Board with POWERLINK, X2X and 2x CAN
- 5ACCIF01.FPCS-XXX - Interface Board with POWERLINK, CAN and RS485
- 5ACCIF01.FSS0-XXX - Interface Board with RS422 and RS485
- 5ACCIF03.CETH-000 – Interface Board with 2xETH 10/100/1000
  XXX representing different RAM options (FRAM, SRAM)

Link Transmitter
- 5ACCLI01.SDL0-000 - Link Transmitter with SDL Port

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes
  XX represents different card manufacturers

Front Cover & Label
- 5ACCFF03.0000-XXX - Front Cover
- 5ACCST00.0000-XXX - Product Label

XXX represents different door colours, labels and prints

Battery Compartment
- 5ACCBT01.0000-XXX - battery tray
  XXX represents different door colours and prints

Accessory
- 0TB1210.3100 - 10 pin terminal block
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles

Automation PC 3100 (APC3100):

System Unit
- 5APC3100.KBU0-000 - Dual Core Intel Celeron 3956U 2.2 GHz
- 5APC3100.KBU3-000 - Dual Core Intel Core i7 7600U 2.8 GHz

Main Memory
- 5MMDDR.XXXX-04 - DDR4 SDRAM
  XXXX represents different main memory sizes

Interface board
- 5AC901.I485-(X)00 - Interface Card with RS232/422/485
- 5AC901.ICAN-(X)00 - Interface Card with CAN
- 5AC901.IETH-(X)00 - Interface Card with Ethernet
- 5AC901.IHDA-(X)00 - Interface Card with Audio Interface
- 5AC901.IPLK-(X)00 - Interface Card with POWERLINK
- 5AC901.ISIO-(X)00 - Interface Card with Relay
  (X) represents a customer part no. with customized parameter settings

Graphic Option
- 5ACCLI02.SDL0-000 - optional SDL graphic interface

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes
  XX represents different card manufacturers

Front and Key Cover
- 5ACCFF01.0000-XXX - Front Cover
- 5ACCBC01.0000-XXX - Key Cover
  XXX represents different door colours, labels and prints

Accessory
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles

Automation Panel 9x3 and Automation Panel 1000 (AP9x3, AP1000):

Display Unit
- 5AP923.1505-00 or (X)XX - 15'' XGA display unit with resistive touch screen
- 5AP933.240C-00 or (X)XX - 24'' FHD display unit with projected capacitive touch screen
- 5AP1120.1906-000 or XXX - 19'' SXGA display unit with resistive touch screen
- 5AP1130.101E-000 or XXX - 10,1'' WXGA display unit with projected capacitive touch screen
- 5AP1130.156C-000 or XXX - 15,6'' FHD display unit with projected capacitive touch screen
- 5AP1130.185C-000 or XXX - 18,5'' FHD display unit with projected capacitive touch screen
  (X)XX and XXX represent customer specific versions with different colours, labels, or decorative sheets

Display Link
- 5DLSDL.1001-00 - Display Link with SDL Port

Display Cable
- 5CASDL.0XXX-00 - SDL cable for fixed installation
- 5CASDL.0XXX-01 - cable for fixed installation with a 45° connector
- 5CASDL.0XXX-03 - SDL cable for flexible installation
0XXX represents various cable lengths, max. 25 m

Accessory
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Panel PC 2100 (PPC2100):

System Unit
- 5PPC2100.BY44-000 - Quad Core processor E3845 and 4GB DDR3 RAM
- 5PPC2100.BY48-000 - Quad Core processor E3845 and 8GB DDR3 RAM

Interface board
- 5ACCIF01.FPLS-XXX - Interface Board with POWERLINK and RS232
- 5ACCIF01.FPSC-XXX - Interface Board with POWERLINK, CAN and RS232
- 5ACCIF01.FPCC-XXX - Interface Board with POWERLINK, X2X and 2x CAN
- 5ACCIF01.FPCS-XXX - Interface Board with POWERLINK, CAN and RS485
   XXX representing different RAM options (FRAM, SRAM)

Display Unit
- 5AP923.1505-00 or (X)XX - 15'' XGA display unit with resistive touch screen
- 5AP933.240C-00 or (X)XX - 24'' FHD display unit with projected capacitive touch screen
- 5AP1120.1906-000 or XXX - 19'' SXGA display unit with resistive touch screen
- 5AP1130.101E-000 or XXX - 10,1'' WXGA display unit with projected capacitive touch screen
- 5AP1130.156C-000 or XXX - 15,6'' FHD display unit with projected capacitive touch screen
- 5AP1130.185C-000 or XXX - 18,5'' FHD display unit with projected capacitive touch screen
(X)XX and XXX represent customer specific versions with different colours, labels, or decorative sheets

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
   XXXX represents different memory sizes
   XX represents different card manufacturers

Accessory
- 0TB1210.3100 - 10 pin terminal block
- 0TB103.XX - 24V power connector
   XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
   XX represents various types of dongles

Panel PC 2200 (PPC2200):

System Unit
- 5PPC2200.AL18-000 - Quad Core Intel Atom E3940 1.60 GHz and 8GB SDRAM

Interface board
- 5ACCIF01.FPLS-XXX - Interface Board with POWERLINK and RS232
- 5ACCIF01.FPSC-XXX - Interface Board with POWERLINK, CAN and RS232
- 5ACCIF01.FPCC-XXX - Interface Board with POWERLINK, X2X and 2x CAN
- 5ACCIF01.FPCS-XXX - Interface Board with POWERLINK, CAN and RS485
- 5ACCIF01.FSS0-XXX - Interface Board with RS422 and RS485
- 5ACCIF03.CETH-000 – Interface Board with 2xETH 10/100/1000
   XXX representing different RAM options (FRAM, SRAM)

Display Unit
- 5AP923.1505-00 or (X)XX - 15'' XGA display unit with resistive touch screen
- 5AP933.240C-00 or (X)XX - 24'' FHD display unit with projected capacitive touch screen
- 5AP1120.1906-000 or XXX - 19'' SXGA display unit with resistive touch screen
- 5AP1130.101E-000 or XXX - 10,1'' WXGA display unit with projected capacitive touch screen
- 5AP1130.156C-000 or XXX - 15,6'' FHD display unit with projected capacitive touch screen
- 5AP1130.185C-000 or XXX - 18,5'' FHD display unit with projected capacitive touch screen
  (X)XX and XXX represent customer specific versions with different colours, labels, or decorative sheets

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes
  XX represents different card manufacturers

Battery Compartment
- 5ACCBT01.0000-XXX - battery tray
  XXX represents different door colours and –prints

Accessory
- 0TB1210.3100 - 10 pin terminal block
- 0TB103.XX - 24V power connector
XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles

Panel PC 3100 (PPC3100):

System Unit
- 5PPC3100.KBU0-000 - Dual Core Intel Celeron 3956U 2.2 GHz
- 5PPC3100.KBU3-000 - Dual Core Intel Core i7 7600U 2.8 GHz

Main Memory
- 5MMDDR.XXXX-04 - DDR4 SDRAM
  XXXX represents different main memory sizes

Interface board
- 5AC901.I485-(X)00 - Interface Card with RS232/422/485
- 5AC901.ICAN-(X)00 - Interface Card with CAN
- 5AC901.IETH-(X)00 - Interface Card with Ethernet
- 5AC901.IHDA-(X)00 - Interface Card with Audio Interface
- 5AC901.IPLK-(X)X00 - Interface Card with POWERLINK

- 5AC901.ISIO-(X)00 - Interface Card with Relay
  (X) represents a customer part no. with customized parameter settings.

Display Unit
- 5AP923.1505-00 or (X)XX - 15'' XGA display unit with resistive touch screen
- 5AP933.240C-00 or (X)XX - 24'' FHD display unit with projected capacitive touch screen
- 5AP1120.1906-000 or XXX - 19'' SXGA display unit with resistive touch screen
- 5AP1130.101E-000 or XXX - 10,1'' WXGA display unit with projected capacitive touch screen
- 5AP1130.156C-000 or XXX - 15,6'' FHD display unit with projected capacitive touch screen
- 5AP1130.185C-000 or XXX - 18,5'' FHD display unit with projected capacitive touch screen
  (X)XX and XXX represent customer specific versions with different colours, labels, or decorative sheets

Graphic Option
- 5ACCLI02.SDL0-000 - optional SDL graphic interface

Data Storage
- 5CFAST.XXXX-XX - Representing Cfast cards (various types / sizes)
  XXXX represents different memory sizes - XX represents different card manufacturers

Key and Side Cover
- 5ACCBC02.0000-XXX - Key Cover
- 5ACCFF02.0000-XXX - Side Cover
  XXX represents different door colours, labels and prints

Accessory
- 0TB103.XX - 24V power connector
  XX represents possible screw and clamp options

Technology Guard
- 0TG1000.XX - Technology Guard USB-dongle
  XX represents various types of dongles