



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	Phoenix Contact GmbH & Co. KG
Address	Flachsmarktstr. 8, Blomberg, 32825, Germany
Type	Control Units
Description	AXIOLINE Modular I/O system refer to the Appendix for details
Trade Name	AXC, AXL
Application	Marine applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2021.
Specified Standard	Manufacturer's specification IACS unified requirements E10 (Rev.9 Aug 2023)
Ratings	Power supply: 24 V DC
Other Conditions	Power supply lines are to be protected by filter module ME-MAX/NEF/QUINT20a for bridge and open deck applications. Lowest ambient temperature of -40° C has not been verified by documentary evidence.

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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.

Previous Version: This certificate supersedes certificate number LR2480202TA issued on 11.07.2024 which is hereby cancelled.

The Design Appraisal Document TSO-25-031323/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

TYPES	Order No.	Type	Description
	2701295	AXC 1050 XC	controller
	2700988	AXC 1050	controller
	2404267	AXC F 2152	controller
	1069208	AXC F 3152	controller
	1020304	AXC F IL ADAPT	Inline adapter terminal (INTERBUS master)
	2403115	AXC F XT ETH 1TX	Ethernet interface
	2688093	AXL F CNT2 INC2 1F	2 counter inputs, 2 incremental encoder inputs
	2701239	AXL F CNT2 INC2 XC 1F	2 counter inputs, 2 incremental encoder inputs
	2688666	AXL F RS UNI 1H	Communication module (RS-485/RS-422 or RS-232)
	2702006	AXL F RS UNI XC 1H	Communication module (RS-485/RS-422 or RS-232)
	2702072	AXL F AI2 AO2 1H	analogue input/output module, 2 voltage inputs, 2 voltage outputs
	2688501	AXL F AI4 U 1H	analogue input module, 4 voltage inputs
	2702008	AXL F AI4 U XC 1H	analogue input module, 4 voltage inputs
	2688491	AXL F AI4 I 1H	analogue input module, 4 current inputs
	2702007	AXL F AI4 I XC 1H	analogue input module, 4 current inputs
	2688064	AXL F AI8 1F	analogue input module, 8 inputs
	2701232	AXL F AI8 XC 1F	analogue input module, 8 inputs
	2702153	AXL F AO4 XC 1H	analogue output module, 4 outputs
	2688527	AXL F AO4 1H	analogue output module, 4 outputs
	2688080	AXL F AO8 1F	analogue output module, 8 outputs
	2701237	AXL F AO8 XC 1F	analogue output module, 8 outputs
	2688310	AXL F DI16/1 1H	digital input module, 16 inputs, 24 VDC
	2701450	AXL F DI64/1 2F	digital input module, 64 inputs, 24 VDC
	2688022	AXL F DI16/4 2F	digital input module, 16 inputs, 24 VDC
	2701224	AXL F DI16/4 XC 2F	digital input module, 16 inputs, 24 VDC
	2688035	AXL F DI32/1 1F	digital input module, 32 inputs, 24 VDC
	2702052	AXL F DI32/1 2H	digital input module, 32 inputs, 24 VDC
	2701226	AXL F DI32/1 XC 1F	digital input module, 32 inputs, 24 VDC
	2688381	AXL F DO8/2 2A 1H	digital output module, 8 outputs, 24 VDC
	1035427	AXL F DO8/2 2A XC 1H	digital output module, 8 outputs, 24 VDC
	2688349	AXL F DO16/1 1H	digital output module, 16 outputs, 24 VDC
	1027904	AXL F DO16/2 2H	digital output module, 16 outputs, 24 VDC
	2688048	AXL F DO16/3 2F	digital output module, 16 outputs, 24 VDC
	2701228	AXL F DO16/3 XC 2F	digital output module, 16 outputs, 24 VDC
	2701813	AXL F DO16 FLK 1H	digital output module, 16 outputs, 24 VDC

2688051	AXL F DO32/1 1F	digital output module, 32 outputs, 24 VDC
2701230	AXL F DO32/1 XC 1F	digital output module, 32 outputs, 24 VDC
1004925	AXL F DO32/1 2H	digital output module, 32 outputs, 24 VDC
2702053	AXL F DO64/1 2F	digital output module, 64 outputs, 24 VDC
2701916	AXL F DI8/1 DO8/1 1H	digital input/output module, 8 inputs, 24 VDC, 8 outputs 24 VDC
2702017	AXL F DI8/1 DO8/1 XC 1H	Digital input/output module, 8 inputs, 24 VDC, 8 outputs 24 VDC
2702106	AXL F DI16/1 DO16/1 2H	digital input/output module, 16 inputs, 24 VDC, 16 outputs 24 VDC
2688899	AXL F BK EC	bus coupler for Ethernet
2688394	AXL F BK EIP	bus coupler for Ethernet
2688459	AXL F BK ETH	bus coupler for Ethernet
2701949	AXL F BK ETH XC	bus coupler for Ethernet
2702177	AXL F BK ETH NET2	bus coupler for Ethernet
2688530	AXL F BK PB	bus coupler for Profibus
2701815	AXL F BK PN	bus coupler for Ethernet
2701222	AXL F BK PN XC	bus coupler for Ethernet
2403869	AXL F BK PN TPS	bus coupler for Ethernet
2688297	AXL F PWR 1H	bus coupler for Ethernet
2701457	AXL F BK SAS	bus coupler for Ethernet
2701686	AXL F BK S3	bus coupler for Ethernet
2702668	AXL F IF CAN 1H	interface module, CAN, transparent protocol
2688556	AXL F RTD4 1H	temperature module, 4 RTD inputs
2688077	AXL F RTD8 1F	temperature module, 8 RTD inputs
2701235	AXL F RTD8 XC 1F	temperature module, 8 RTD inputs
2688598	AXL F UTH4 1H	temperature module, 4 inputs