

Controller - AXC 1050 - 2700988

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Axio control for direct open-loop control of Axioline I/Os. With 2 Ethernet interfaces and programming capabilities according to IEC 61131-3. Complete with connector connector and labeling field.

Product Description


The AXC 1050 modular small-scale controller for the Axioline I/O system is fast, robust, and easy, i.e., it is consistently designed for maximum performance, easy handling, and use in harsh industrial environments.

Your advantages

- ✓ PROFINET controller (up to 16 devices) and/or PROFINET device
- ✓ Modbus/TCP-Client
- ✓ Numerous protocols supported such as: http, https, FTP, SNMP, SMTP, SQL, MySQL, DCP, etc.
- ✓ Free engineering with PC Worx Express (IEC 61131-3)
- ✓ Up to 63 AXIO I/O modules can be mounted side by side
- ✓ Integrated UPS for targeted shutdown of the application
- ✓ Configuration via USB
- ✓ Web server HTML5 and JAVA
- ✓ SD card up to 2 GB as optional plug-in parameterization memory
- ✓ 2 x Ethernet interfaces (integrated switch)
- ✓ Increased resistance to EMI
- ✓ Extended temperature range of -25°C ... +60°C



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 731195
GTIN	4046356731195

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Controller - AXC 1050 - 2700988

Technical data

Dimensions

Width	45 mm
Height	126.1 mm
Depth	74 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C up to 2000 m above mean sea level
	-25 °C ... 55 °C up to 3000 m above mean sea level
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (according to DIN EN 61131-2, non-condensing, no ice formation)
Permissible humidity (storage/transport)	5 % ... 95 % (according to DIN EN 61131-2, non-condensing, no ice formation)
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	58 kPa ... 106 kPa (up to 4500 m above mean sea level)
Shock	30g, 11 ms period, half-sine shock pulse, according to IEC 60068-2-27
Vibration (operation)	5g

Control system

Engineering tool	PC WORX
	PC WORX EXPRESS
Programming languages supported	Programming in acc. with IEC 61131-3
Diagnostics tool	DIAG+
Configuration tool	Config+ Version 1.01 or later

IEC 61131 runtime system

Engineering tool	PC WORX
	PC WORX EXPRESS
Program memory	2 Mbyte
Mass storage	2 Mbyte
Retentive mass storage	48 kByte (NVRAM)
Number of control tasks	8
Realtime clock	Yes
Accuracy realtime clock	1.73 s/day = 20 ppm at 25 °C

Fieldbus function

Amount of process data	max. 8192 Bit (per station)
	max. 4096 Bit (Axioline F local bus (input))
	max. 4096 Bit (Axioline F local bus (output))
	max. 32768 Bit (internal Modbus /TCP client)
Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63 (observe current consumption)
Program memory	2 Mbyte

Controller - AXC 1050 - 2700988

Technical data

Data interfaces

Interface	Axioline F local bus
Number	1
Connection method	Bus base module
Transmission speed	100 Mbps
Interface	Ethernet
Number	2
Connection method	RJ45 jack
Transmission speed	10/100 Mbps (half or full duplex (automatic detection))
Interface	Service
Number	1
Connection method	Micro USB type B
Transmission speed	max. 115.2 kbps

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
Update rate	min. 32 ms (16 devices)
	min. 32 ms (8 devices)
	min. 16 ms (4 devices)
	min. 8 ms (2 devices)
	min. 4 ms (1st device)

Power supply

Typical current consumption	125 mA
Max. current consumption	160 mA
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	± 5 %
Power dissipation	max. 3 W

Mechanical design

Weight	195 g
Note on weight specifications	with connector and bus base module
Diagnostics display	No
Controller redundancy	yes
Note on controller redundancy	applicative system redundancy possible
Safety function	No

General data

Processor	Altera Nios II 1x 100 MHz
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Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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Controller - AXC 1050 - 2700988

Technical data

Standards and Regulations

Interference emission	Noise emission test according to EN 61000-6-3 Class B
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, DC supply lines: ± 0.5 kV/ ± 0.5 kV (symmetrical/asymmetrical), fieldbus cable shield: ± 1 kV
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
Vibration (storage/transport)	5g
Shock	30g, 11 ms period, half-sine shock pulse, according to IEC 60068-2-27
Vibration (operation)	5g
Shock (operation)	10g (Bump endurance test according to DIN EN 60068-2-27)

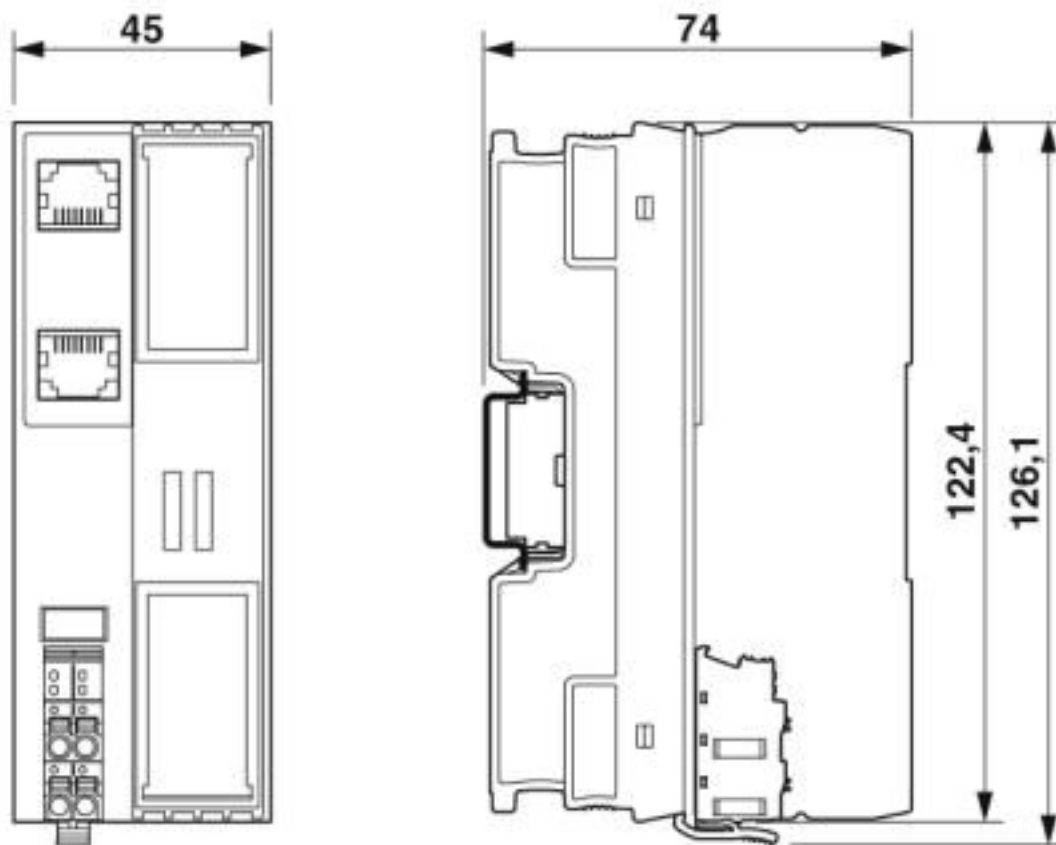
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Controller - AXC 1050 - 2700988

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242207
eCl@ss 4.0	27240600
eCl@ss 4.1	27240600
eCl@ss 5.0	27242700
eCl@ss 5.1	27242700
eCl@ss 6.0	27242200
eCl@ss 7.0	27242207
eCl@ss 8.0	27242207
eCl@ss 9.0	27242207

ETIM

ETIM 3.0	EC001045
ETIM 4.0	EC001435
ETIM 5.0	EC000236
ETIM 6.0	EC000236
ETIM 7.0	EC000236

Controller - AXC 1050 - 2700988

Classifications

UNSPSC

UNSPSC 6.01	81111810
UNSPSC 7.0901	81111810
UNSPSC 11	81111810
UNSPSC 12.01	81111810
UNSPSC 13.2	39122114
UNSPSC 18.0	39122114
UNSPSC 19.0	39122114
UNSPSC 20.0	39122114
UNSPSC 21.0	39122114

Approvals






Approvals

Approvals

PRS / BV / LR / KR / NK / ABS / BSH / RINA / EAC / DNV GL / UL Listed / cUL Listed / cULus Listed







Ex Approvals

Approval details

PRS		http://www.prs.pl/	TE/2239/880590/19
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36433/B1 BV
LR		http://www.lr.org/en	LR2001902TA
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
NK		http://www.classnk.or.jp/hp/en/	14A006

Controller - AXC 1050 - 2700988

Approvals

ABS		http://www.eagle.org/eagleExternalPortalWEB/	18-HG1767360-PDA
BSH			840
RINA		http://www.rina.org/en	ELE030120XG
EAC			EAC-Zulassung
DNV GL		https://approvalfinder.dnvgl.com/	TAA00000DF
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cULus Listed			

Accessories

Accessories

Drivers and interfaces

Software - AX OPC SERVER - 2985945



AX OPC SERVER, communication interface for OPC-capable visualization with PC WORX-based controls.

Controller - AXC 1050 - 2700988

Accessories

Software - PC WORX UA SERVER-PLC 10 - 2402684



OPC UA server for communication with a maximum of 10 modular small-scale controllers (AXC 1xxx or ILC 1x1)

Software - PC WORX UA SERVER-PLC 40 - 2402685



OPC UA server for communication with a maximum of 25 controllers

Software - PC WORX UA SERVER-PLC 80 - 2402686



OPC UA server for communication with a maximum of 200 controllers

Parameterization memory

Memory - SD FLASH 512MB - 2988146



Program and configuration memory, plug-in, 512 Mbyte.

Program / configuration memory - SD FLASH 512MB APPLIC A - 2701799



Program and configuration memory for extending the internal Flash memory, plug-in, 512 MB, with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

Controller - AXC 1050 - 2700988

Accessories

Memory - SD FLASH 512MB PDPI BASIC - 2701800



Program and configuration memory, plug-in, 512 MB with license key for licensing the PDPI - BASIC functional block for precise multi-channel controllers with self-optimization, e.g., for heating and cooling functions or hydraulic movements.

Memory - SD FLASH 512MB PDPI PRO - 2701801



Program and configuration memory, plug-in, 512 MB with license key for licensing the PDPI - PRO functional block for precise multi-channel controllers with self-optimization, additional functions: e.g., for setpoint processing, for heating and cooling functions.

Program / configuration memory - SD FLASH 2GB - 2988162



Program and configuration memory, for extending the internal flash memory, pluggable, 2 GB.

Program / configuration memory - SD FLASH 2GB APPLIC A - 2701190



Program and configuration memory for extending the internal Flash memory, plug-in, 2 GB, with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

Program / configuration memory - SD FLASH 2GB AXC EASY SAFE PRO - 2403730



Program and configuration memory for extending the internal flash memory, plug-in, 2 GB, with license key and application program for the simple web-based configuration and commissioning of a SafetyBridge solution, including communication via Modbus/TCP, PROFINET, and e-mail.

Controller - AXC 1050 - 2700988

Accessories

Program / configuration memory - SD FLASH 2GB ATWISE - 2400088



Program and configuration memory for extending the internal Flash memory, plug-in, 2 GB, with license key for webMI from atwise®

Program / configuration memory - SD FLASH 2GB APPLIC A ATWISE - 2400089



Program and configuration memory for extending the internal Flash memory, plug-in, 2 GB, with license key for function block libraries, e.g., for: webMI from atwise®, SNMP, SQL, wireless, motion functions, etc.

Programming

Software - PC WORX DEMO - 2985725



Software - PC WORX BASIC LIC - 2985275



Software package for PC-based automation solutions, PC WORX BASIC license, contains all 5 IEC languages, without MSFC compiler, max. 2048 byte input and output data, version-specific license key

Software - PC WORX PRO LIC - 2985385



Software package for PC-based automation solutions, PC WORX PRO license, contains all 5 IEC languages, with MSFC compiler, max 128 kB input and output data, version-specific license key

Programming cable

Controller - AXC 1050 - 2700988

Accessories

Connecting cable - CAB-USB A/MICRO USB B/2,0M - 2701626



Connecting cable, for connecting the controller to a PC for PC Worx and LOGIC+, USB A to micro USB B, 2 m in length.

Spare parts

Bus connector - AXL BS BK - 2701422



Axioline F bus base module for housing type BK

Plug - AXL CN S/UL - 2701421



Axioline F short power connector (for e.g., AXL F BK ...)

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[R88A-CRGB003CR-E](#) [R88ARR080100S](#) [R88A-TK01K](#) [DCN1-1](#) [DRT2ID08C](#) [DTB4896VRE](#) [DTB9696CVE](#) [DTB9696LVE](#) [E53-AZ01](#)
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