

AXC 1050 XC - Controller



2701295

<https://www.phoenixcontact.com/us/products/2701295>

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Axioccontrol for the direct control of Axioline I/Os. With 2 Ethernet interfaces, extended temperature range, and programming options according to IEC 61131-3. Complete with connector connector and marking field.

Product description

The AXC 1050/XC 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 in the extended temperature range from -40°C to +70°C.

Your advantages

- PROFINET controller for up to 16 devices and/or PROFINET device functionality
- Memory extendable by up to 2 GB via plug-in SD card
- Free engineering with PC Worx Express (IEC 61131-3)
- Modbus/TCP-Client
- Integrated FTP and HTML5 web server
- Numerous protocols supported such as: HTTP, FTP, SNTP, SNMP, SMTP, SQL, MySQL, etc.
- Extended temperature range of -40 °C ... 70 °C (with derating)
- Maritime approvals (GL, DNV, LR, BV, RINA, ABS)

Commercial data

Item number	2701295
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR10
Product key	DRAAEA
GTIN	4055626000091
Weight per piece (including packing)	247 g
Weight per piece (excluding packing)	244 g
Customs tariff number	85371091
Country of origin	DE

Technical data

Notes

Note on application

Note on application	Only for industrial use
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Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Product properties

Product type	Controller
Product family	Axiicontrol
Type	modular

Insulation characteristics

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Display

Diagnostics display	no
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System properties

Retentive data storage	48 kByte (NVRAM)
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IEC 61131 runtime system

Program memory	2 Mbyte
Data storage system	2 Mbyte
Number of control tasks	8

Axioline

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))
Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63 (observe current consumption)

INTERBUS-Master

Amount of process data (Axioline input/output data max.)	max. 8192 bit (per station)
Amount of process data (Axioline input data max.)	max. 4096 bit (Axioline F local bus (input))
Amount of process data (Axioline output data max.)	max. 4096 bit (Axioline F local bus (output))
Amount of process data	max. 32768 bit (internal Modbus /TCP client)

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
	min. 32 ms (16 devices)

AXC 1050 XC - Controller



2701295

<https://www.phoenixcontact.com/us/products/2701295>

Update rate	min. 32 ms (8 devices)
	min. 16 ms (4 devices)
	min. 8 ms (2 devices)
	min. 4 ms (1 device)
Conformance Class	A
Number of supported devices	max. 16 (at PROFINET controller)
Supported functions	MRP
	MRP
Device ID	0093 _{hex}
Vendor ID	00B0 _{hex}

Function

Diagnostics display	no
Redundancy function	yes
Note on redundancy function	applicative system redundancy possible
Safety function	no

Programming data

Register length (master)	1482 Byte
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Functionality

Programming languages supported	Instruction list (IL)
	Symbolic flowchart (SFC)
	Ladder diagram (LD)
	Function block diagram (FBD)
	Structured text (ST)

System requirements

Configuration tool	Config+ Version 1.01 or later
Diagnostics tool	DIAG+
Runtime system	eCLR
Application interface	OPC

Electrical properties

Maximum power dissipation for nominal condition	3.2 W
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Real-time clock

Realtime clock	yes
Description realtime clock	1.73 s/day = 20 ppm at 25 °C

Potentials

Protective circuit	Surge protection of the supply voltage; electronic
	Polarity reversal protection of the supply voltage; electronic

Potentials: Communications power U_L feed-in (the supply of the Axioline F local bus U_{BUS} is generated from U_L)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

AXC 1050 XC - Controller



2701295

<https://www.phoenixcontact.com/us/products/2701295>

Current draw	max. 650 mA (with 2 A at U_{Bus} for the I/Os and $U_L = 24 V$)
Current consumption	typ. 100 mA (without I/Os and $U_L = 24 V$)
Power consumption	max. 13.2 W (2.0 A on U_{Bus} , $U_L = 24 V$)

Potentials: Axioline F local bus supply (U_{Bus})

Supply voltage	5 V DC (via bus base module)
Power supply unit	2 A

Connection data

Connection method	Push-in connection
Connection method	Push-in connection
Conductor cross-section, rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Interfaces

Web server	yes
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Axioline F local bus

Number of interfaces	1
Connection method	Bus base module
Transmission speed	100 Mbps

Ethernet

Bus system	RJ45
Number of interfaces	2
Connection method	RJ45 jack
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps (half or full duplex (automatic detection))
Transmission physics	Ethernet in RJ45 twisted pair
No. of channels	2

Service

Bus system	USB
Number of interfaces	1
Connection method	Micro USB type B
Transmission speed	max. 115.2 kbps
No. of channels	1

Dimensions

AXC 1050 XC - Controller

2701295

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Dimensional drawing	
Width	45 mm
Height	126.1 mm
Depth	74 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C up to 2000 m above mean sea level (observe derating) -40 °C ... 65 °C up to 3000 m above mean sea level (observe derating)
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)
Shock (operation)	10g (Bump endurance test according to DIN EN 60068-2-27)
Vibration (operation)	5g
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)

Approvals

ATEX

Identification	⊕ II 3 G Ex ec IIC T4 Gc
Certificate	TÜV 21 ATEX 8677 X

UKEX

Identification	⊕ II 3 G Ex ec IIC T4 Gc
Certificate	PxCIMA23UKEX2701295X

IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX TUR 21.0025X

AXC 1050 XC - Controller



2701295

<https://www.phoenixcontact.com/us/products/2701295>

CCC / China-Ex

Identification	Ex ec IIC T4 Gc
Certificate	

UL, USA/Canada

Identification	cULus
Certificate	E238705

Corrosive gas test

Identification	ISA S71.04.2013 G3 Harsh Group A, DIN EN 60068-2-60:2016-06 Method 4
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EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	Immunity test in accordance with EN IEC 61000-6-2 Electrostatic discharge (ESD) IEC 61000-4-2 Criterion B, ± 6 kV contact discharge, ± 8 kV air discharge
	Immunity test in accordance with EN IEC 61000-6-2 Electromagnetic fields IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
	Immunity test in accordance with EN IEC 61000-6-2 Fast transients (burst) IEC 61000-4-4 Criterion B, ± 2 kV
	Immunity test in accordance with EN IEC 61000-6-2 Transient overvoltage (surge) IEC 61000-4-5 Criterion B; DC supply lines: ± 0.5 kV/ ± 1.0 kV (symmetrical/asymmetrical), fieldbus cable shielding: ± 1.0 kV
	Immunity test in accordance with EN IEC 61000-6-2 Conducted interference IEC 61000-4-6 Criterion A, Test voltage 10 V
	Noise emission test in accordance with EN IEC 61000-6-3 Class B

Mounting

Mounting type	DIN rail mounting
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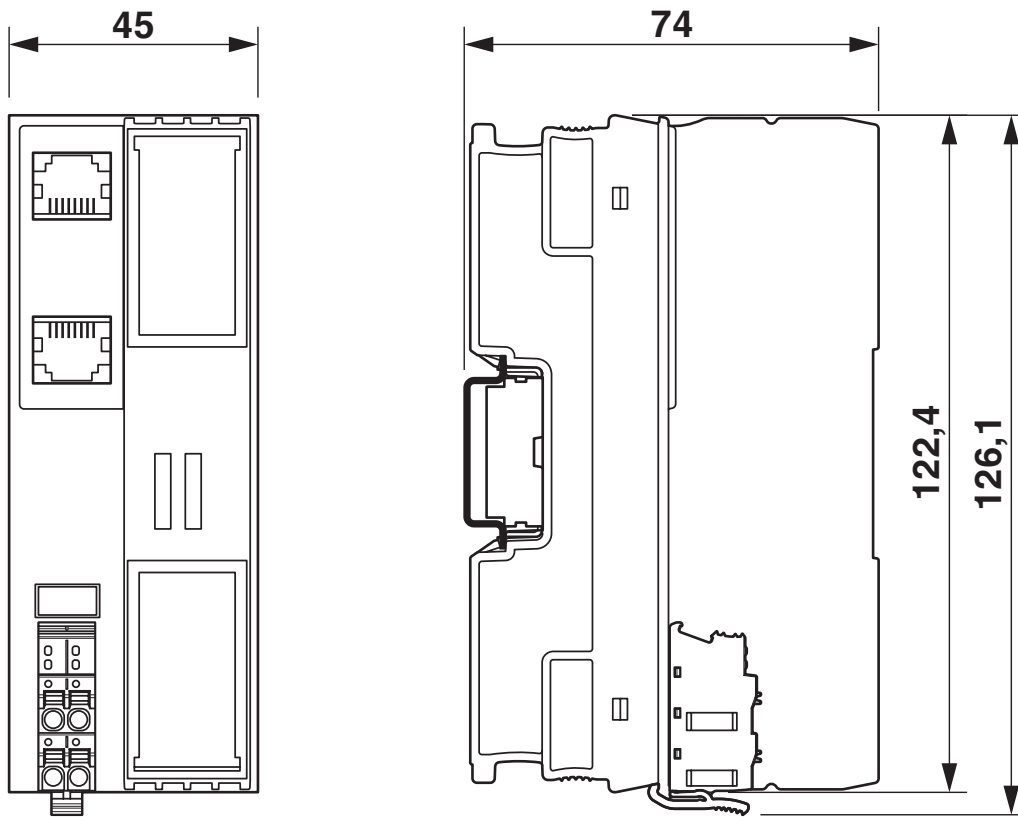
2701295

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Drawings

Dimensional drawing



AXC 1050 XC - Controller



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Approvals

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DNV GL

Approval ID: TAA00000DF



LR

Approval ID: LR2480202TA-02

BSH

Approval ID: 840

ABS

Approval ID: 23-2449604-PDA



cULus Listed

Approval ID: E238705



cULus Listed

Approval ID: E238705



IECEX

Approval ID: IECEX TUR 21.0025X



CCC

Approval ID: 2023122304116464



ATEX

Approval ID: TUEV 21 ATEX 8677 X

AXC 1050 XC - Controller

2701295

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Classifications

ECLASS

ECLASS-13.0	27242207
ECLASS-15.0	27242207

UNSPSC

UNSPSC 21.0	32151700
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<https://www.phoenixcontact.com/us/products/2701295>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	70db47f9-3de4-42fe-a36f-666cd5c5ca89

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