AXC 1050 - Controller

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 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.

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2700988
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR10
Product key	DRAAEA
GTIN	4046356731195
Weight per piece (including packing)	234.1 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

Utilization restriction

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

Product properties

Product type	Controller
Product family	Axiocontrol
Type	modular

Insulation characteristics

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

Display

Diagnostics display	no

System properties

Operating system	embOS
Processor	AlteraNios® II, 1x 100 MHz

IEC 61131 runtime system

Program memory	2 Mbyte
Retentive data storage	48 kByte (NVRAM)
Data storage system	2 Mbyte
Cycle Time	1 ms (for cyclical task)
Number of control tasks	8
Number of control tasks	8

System limits Controller

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

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
Conformance Class	A
Supported functions (PROFINET-Controller)	MRP

Supported functions (PROFINET-Device)	MRP
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 (1 device)
Number of supported devices (PROFINET-Controller)	max. 16 (at PROFINET controller)
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

Functionality

Programming tool	PC Worx
	PC Worx Express
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

Real-time clock

Real-time clock	yes
Description real-time clock	1.73 s/day = 20 ppm at 25 °C
Power reserve	240 h

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)
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

Axioline F connector

Connection method	Push-in connection
Conductor cross-section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Interfaces

Web server	yes

Axioline F local bus

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

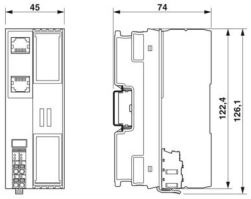
Ethernet

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

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)

Environmental and real-life conditions

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)
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

UL, USA/Canada

Identification	cULus
Certificate	E238705

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 fieldsIEC 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

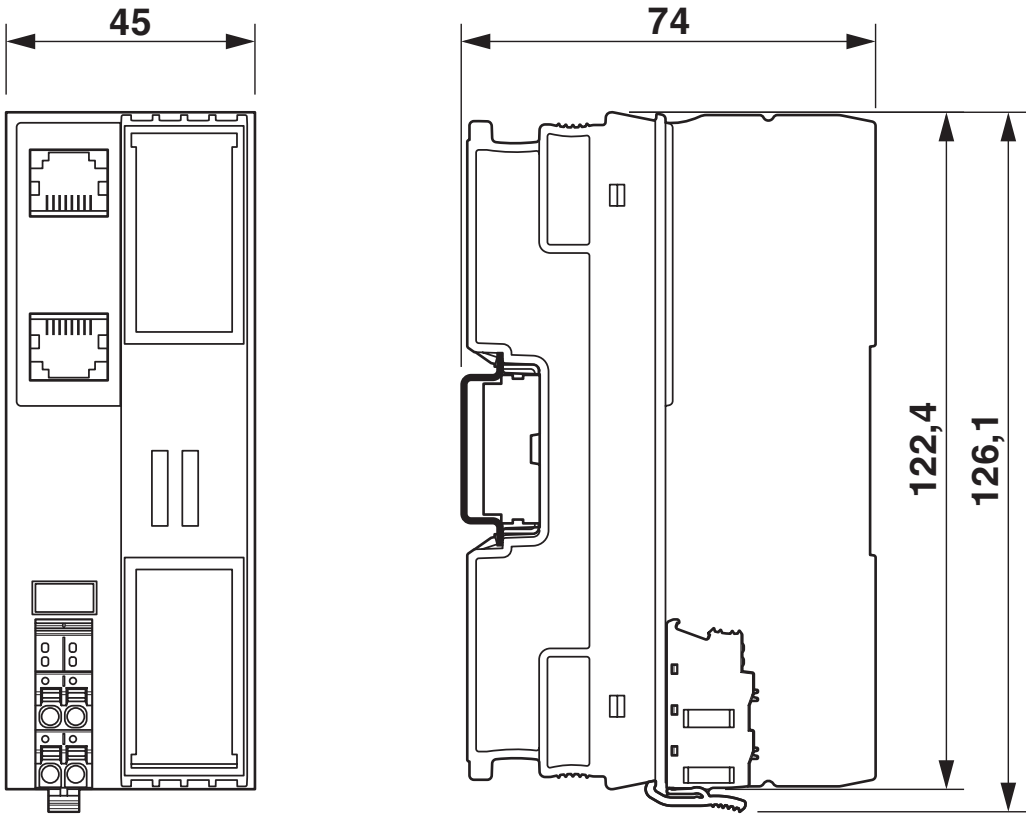
	Immunity test in accordance with EN IEC 61000-6-2 Transient overvoltage (surge)IEC 61000-4-5 Criterion B; DC supply lines: ±0.5 kV/±1.0 kV (symmetrical/asymmetrical), fieldbus cable shielding: ±1.0 kV
	Immunity test in accordance with EN IEC 61000-6-2 Conducted interferenceIEC 61000-4-6 Criterion A, Test voltage 10 V
	Noise emission test in accordance with EN IEC 61000-6-3 Class B

Mounting

Mounting type	DIN rail mounting

Drawings

Dimensional drawing



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2700988

DNV GL
Approval ID: TAA00000DF

LR
Approval ID: LR2480202TA-02

BSH
Approval ID: 840c

ABS
Approval ID: 23-2449604-PDA

cULus Listed
Approval ID: E238705

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Classifications

ECLASS

ECLASS-13.0	27242207
ECLASS-15.0	27242207

ETIM

ETIM 10.0	EC000236

UNSPSC

UNSPSC 21.0	32151700

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	1832c9e3-43ef-4e09-b03e-951014e0fc84

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