

Controller - AXC 3050 - 2700989

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Axiicontrol for the direct control of Axioline F I/Os. With 3 Ethernet interfaces for the additional connection of distributed I/Os via PROFINET, Modbus TCP or TCP/IP. Programming according to IEC 61131-3. Includes connector plug and marking field.

Product Description


The AXC 3050 modular 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 and PROFINET device
- ✓ Modbus/TCP-Client
- ✓ Numerous protocols supported such as: http, https, FTP, SNTP, SNMP, SMTP, SQL, MySQL, DCP, etc.
- ✓ Maritime approvals (GL, DNV, LR, BV, RINA, ABS)
- ✓ Up to 63 AXIO I/O modules can be mounted side by side
- ✓ Integrated UPS for targeted shutdown of the application
- ✓ Programming and configuration via USB
- ✓ Web server HTML5 and JAVA
- ✓ SD card up to 2 GB as optional plug-in parameterization memory
- ✓ 3x Ethernet interfaces
- ✓ Increased resistance to EMI
- ✓ Extended temperature range of -25°C ... +60°C
- ✓ Integrated technology functions such as fast counters, incremental encoder inputs, and event tasks



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 731201
GTIN	4046356731201
Weight per Piece (excluding packing)	444.000 g
Custom tariff number	85371091
Country of origin	Germany

Controller - AXC 3050 - 2700989

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	100 mm
Height	125.9 mm
Depth	74 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C (up to 2000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (assembly)	-5 °C ... 60 °C
Permissible humidity (operation)	5 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	5 % ... 95 % (according to DIN EN 61131-2)
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
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
Program memory	4 Mbyte
Mass storage	8 Mbyte
Retentive mass storage	128 kByte
Number of control tasks	16
Realtime clock	Yes

Fieldbus function

Amount of process data	max. 4096 Bit (Axioline F local bus (input))
	max. 4096 Bit (Axioline F local bus (output))
	max. 8192 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	4 Mbyte

Data interfaces

Interface	Axioline F local bus
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Controller - AXC 3050 - 2700989

Technical data

Data interfaces

Number	1
Connection method	Bus base module
Transmission speed	100 Mbps
Interface	Ethernet
Number	3
Connection method	RJ45 jack
Transmission speed	10/100 Mbps
Interface	Parameterization/operation/diagnostics
Number	1
Connection method	Micro USB type B
Transmission speed	max. 115.2 kbps
Interface	Service
Number	1
Connection method	USB type A, socket

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
Update rate	max. of 256 devices

Direct I/Os

Input name	Counter input for 24 V signals
Number of inputs	max. 2 (via any digital inputs of the Axioline F modules)
Input frequency	max. 100 kHz (with AXL F DI16/1 HS 1H module)

Power supply

Typical current consumption	typ. 408 mA (without I/Os and $U_L = 24\text{ V}$)
Max. current consumption	max. 976 mA (with 2 A at U_{Bus} for the I/Os and $U_L = 24\text{ V}$)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	$\pm 5\%$
Power dissipation	max. 9.8 W

Mechanical design

Weight	444 g
Diagnostics display	No
Controller redundancy	yes
Note on controller redundancy	applicative system redundancy possible
Safety function	No

General data

Processor	Intel® Atom™ E660 1x 1.3 GHz
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Standards and Regulations

Controller - AXC 3050 - 2700989

Technical data

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Interference emission	Noise emission test according to EN 61000-6-3 Radio interference properties EN 55022 Class A
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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Classifications

eCl@ss

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 3050 - 2700989

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

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

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAA00000BH
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	43778/A1 BV
LR		http://www.lr.org/en	17/20072 (19-39165)
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
ABS		http://www.eagle.org/eagleExternalPortalWEB/	16- HG1511761-1-PDA

Controller - AXC 3050 - 2700989

Approvals

RINA		http://www.rina.org/en	ELE141419XG
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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EAC			EAC-Zulassung
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cULus Listed			
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Accessories

Accessories

Drivers and interfaces

Software - AX OPC SERVER - 2985945



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

Software - PC WORX UA SERVER-PLC 40 - 2402685



OPC UA server for communication with a maximum of 25 controllers

Controller - AXC 3050 - 2700989

Accessories

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.

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.

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.

Controller - AXC 3050 - 2700989

Accessories

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.

Programming

Software - PC WORX DEMO - 2985725



Software package for PC-based automation solutions, PC WORX DEMO, contains all 5 IEC languages, with MSFC compiler, max. 16 bytes input and output data

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 3050 - 2700989

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 - AXC BS - 2701582



Axioccontrol bus base module for AXC 3xxx

Plug - AXL CN S/UL - 2701421



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