

## Controller - AXC 3050 - 2700989

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Axiococontrol 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, 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)	460.000 g

## Controller - AXC 3050 - 2700989

Custom tariff number	85371091
Country of origin	Germany

### 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. 8192 Bit (per station)
	max. 4096 Bit (Axioline F local bus (input))
	max. 4096 Bit (Axioline F local bus (output))

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## Technical data

### Fieldbus function

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
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

# Controller - AXC 3050 - 2700989

## Technical data

### 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

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 10.0.1	27242207
eCl@ss 11.0	27242207
eCl@ss 4.0	27240600
eCl@ss 4.1	27240600

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## Classifications

### eCl@ss

eCl@ss 5.0	27242700
eCl@ss 5.1	27242700
eCl@ss 6.0	27242200
eCl@ss 7.0	27242207
eCl@ss 9.0	27242207

### ETIM

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

### 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

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

Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA00000BH
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## Approvals

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	43778/A1 BV
LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	LR2004288TA
KR		<a href="http://www.krs.co.kr/eng/main/main.aspx">http://www.krs.co.kr/eng/main/main.aspx</a>	HMB17372-AC002
ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	16- HG1511761-1-PDA
RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE141419XG
UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
EAC			EAC-Zulassung
cULus Listed			

## Accessories

Accessories

Drivers and interfaces

## Controller - AXC 3050 - 2700989

### Accessories

Software - AX OPC SERVER - 2985945



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

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Software - PC WORX UA SERVER-PLC 40 - 2402685



OPC UA server for communication with a maximum of 25 controllers

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Software - PC WORX UA SERVER-PLC 80 - 2402686



OPC UA server for communication with a maximum of 200 controllers

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### Parameterization memory

Memory - SD FLASH 512MB - 2988146



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

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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. For licensed function blocks, please refer to the documentation.

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## Controller - AXC 3050 - 2700989

### Accessories

#### 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.

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#### 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.

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#### Program / configuration memory - SD FLASH 2GB - 2988162



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

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#### 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. For licensed function blocks, please refer to the documentation.

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### 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 of input and output data can be used with the demo version. It is available free of charge and does not require a license key. It is part of the AUTOMATIONWORX Software Suite, which you can download under "Downloads".

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## Controller - AXC 3050 - 2700989

### Accessories

#### 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

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#### 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

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### Programming cable

#### 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.

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### Spare parts

#### Bus connector - AXC BS - 2701582



Axiocontrol bus base module for AXC 3xxx

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#### Plug - AXL CN S/UL - 2701421



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

## Controller - AXC 3050 - 2700989

### Accessories

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