

# AXC 3050 - Controller

2700989

<https://www.phoenixcontact.com/us/products/2700989>



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Axiocontrol 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
- Memory extendable by up to 2 GB via plug-in SD card
- 3 independent Ethernet interfaces
- Modbus/TCP-Client
- Integrated FTP and HTML5 web server
- Numerous protocols supported such as: http, https, FTP, SNTP, SNMP, SMTP, SQL, MySQL, DCP, etc.
- Integrated UPS for targeted shutdown of the application
- Maritime approvals (GL, DNV, LR, BV, RINA, ABS)

## Commercial data

Item number	2700989
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR10
Product key	DRAAEC
GTIN	4046356731201
Weight per piece (including packing)	461.7 g
Weight per piece (excluding packing)	444 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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### Product properties

Product type	Controller
Product family	Axioccontrol
Type	modular

#### Display

Diagnostics display	no
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### System properties

Retentive data storage	128 kByte
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#### IEC 61131 runtime system

Program memory	4 Mbyte
Data storage system	8 Mbyte
Number of control tasks	16

#### 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))

#### PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
Update rate	min. 1 ms (16 devices)
	min. 2 ms (32 participants)
	min. 4 ms (64 devices)
	min. 8 ms (32 participants)
	min. 16 ms (256 participants)
Conformance Class	B
Number of supported devices	max. 256 (at PROFINET controller)
Device ID	0095 <sub>hex</sub>

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Vendor ID	00B0 <sub>hex</sub>
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## 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	max. 9.8 W
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## Supply

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

## Real-time clock

Realtime clock	yes
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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. 976 mA (with 2 A at $U_{BUS}$ for the I/Os and $U_L = 24$ V)
Current consumption	typ. 408 mA (without I/Os and $U_L = 24$ V)
Power consumption	max. 23.5 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

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## Potentials

Supply voltage	24 V DC -15 % / +20 % (in accordance with EN 61131-2)
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## Input data

### Counter:

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)

## Connection data

Connection method	Push-in connection
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### Axioline F connector

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

## Interfaces

Web server	yes
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### Ethernet

Bus system	RJ45
Number of interfaces	3
Connection method	RJ45 jack
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps
Transmission physics	Ethernet in RJ45 twisted pair
No. of channels	3

### Axioline F local bus

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

### Parameterization/operation/diagnostics

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

### Service

Bus system	USB
Number of interfaces	1

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Connection method	USB type A, socket
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## Dimensions

Width	100 mm
Height	125.9 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)	-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)
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)

## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Electrostatic discharge (ESD)EN 61000-4-2/IEC 61000-4-2 Criterion B, $\pm 6$ kV contact discharge, $\pm 8$ kV air discharge
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Electromagnetic fieldsEN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Fast transients (burst)EN 61000-4-4/IEC 61000-4-4 Criterion B, $\pm 2$ kV
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Transient overvoltage (surge)EN 61000-4-5/IEC 61000-4-5 Criterion B, DC supply lines: $\pm 0.5$ kV/ $\pm 0.5$ kV (symmetrical/asymmetrical), fieldbus cable shield: $\pm 1$ kV
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Conducted interferenceEN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
	Noise emission test in accordance with EN 61000-6-3/IEC 61000-6-3 Radio interference properties EN 55022 Class A

## Mounting

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Mounting type	DIN rail mounting
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## Classifications

### ECLASS

ECLASS-13.0

27242207

### ETIM

ETIM 9.0

EC000236

### UNSPSC

UNSPSC 21.0

32151700

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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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### EF3.1 Climate Change

CO2e kg	10.12 kg CO2e
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