AXC 3050 - Controller

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
Catalog page	Page 45 (C-6-2019)
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

Product properties

Product type	Controller
Product family	Axiocontrol
Type	modular

Display

Diagnostics display	No

System properties

Processor	Intel® Atom® E660 1x 1.3 GHz
Retentive data storage	128 kByte

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)

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_{hex}
Vendor ID	$00B0_{hex}$

Function

Diagnostics display	No
Controller redundancy	yes
Safety function	No

Functionality

	Instruction list (IL)

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

System requirements

Engineering tool	PC Worx
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

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

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)
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

Potentials

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

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

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

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
Connection method	USB type A, socket

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)

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

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, ±6 kV contact discharge, ±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, ±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: ±0.5 kV/±0.5 kV (symmetrical/asymmetrical), fieldbus cable shield: ±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
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Mounting

Mounting type	DIN rail mounting

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