

Controller - AXC F 3152 - 1069208

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PLCnext Control for the direct control of Axioline F I/Os. With three independent Ethernet interfaces. Complete with connector and bus base module.

Product Description

The controllers of the PLCnext Control AXC F 3152 family for the Axioline I/O system are fast, robust, and easy to use. They were consistently designed for maximum performance, easy handling and use in harsh industrial environments.

Your advantages

- ✔ PROFINET controller and PROFINET device
- ✔ Use of up to two left-alignable extension modules
- ✔ Connection to PROFICLOUD
- ✔ Numerous protocols supported such as: http, https, FTP, SNMP, SMTP, SQL, MySQL, DCP, etc.
- ✔ Optional pluggable fan module allows reliable operation, even under challenging ambient conditions.
- ✔ Up to 63 AXIO I/O modules can be mounted side by side
- ✔ 3 independent Ethernet interfaces
- ✔ Increased resistance to EMI
- ✔ Extended temperature range of -25°C ... +60°C
- ✔ Linux operating system
- ✔ Supports high-level languages



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626741192
Weight per Piece (excluding packing)	680.000 g
Custom tariff number	85371091
Country of origin	Germany

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Technical data

Dimensions

Width	100 mm
Height	126.93 mm
Depth	75 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C up to 2000 m above mean sea level (observe derating)
	-25 °C ... 55 °C up to 3000 m above mean sea level (observe derating)
	≤ 55 °C (with max. 1 A on U _{Bus})
	> 55 °C ... 60 °C (only in conjunction with an Axioline F power module AXL F PWR 1H (order number 2688297))
Ambient temperature (storage/transport)	-40 °C ... 85 °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

IoT capability

Supports cloud computing	yes
IoT platform	PROFICLOUD

Control system

Engineering tool	PLCnext Engineer
	Eclipse
	MATLAB® Simulink®
Programming languages supported	Programming in acc. with IEC 61131-3
	C++
	C#
	Java
	Manufacturer-specific

General data

Processor	Intel® Atom™ x5-E3930 2x 1.3 GHz
Operating system	Linux
RAM	2048 Mbyte

IEC 61131 runtime system

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Technical data

IEC 61131 runtime system

Engineering tool	PLCnext Engineer
	Eclipse
	MATLAB® Simulink®
Program memory	16 Mbyte
Mass storage	32 Mbyte
Retentive mass storage	1 Mbyte
Realtime clock	Yes
Accuracy realtime clock	0.7 s/day = 8 ppm at 25 °C

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))
Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63 (observe current consumption)
Program memory	16 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	10/100/1000 Mbps
Protocols supported	HTTP
	HTTPS
	SFTP
	SNTP
	SNMP
	IPsec
	syslog
	OPC UA

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 2.3
Update rate	min. 1 ms (32 participants)

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PROFINET

	min. 4 ms (128 participants)
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Power supply

Typical current consumption	typ. 260 mA (without I/Os and $U_L = 24\text{ V}$)
	typ. 504 mA (With 1 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	$\pm 5\%$

Mechanical design

Weight	498 g
Controller redundancy	yes
Note on controller redundancy	applicative system redundancy possible

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Interference emission	Noise emission test according to EN 61000-6-3
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: $\pm 0.5\text{ kV}/\pm 0.5\text{ kV}$ (symmetrical/asymmetrical), fieldbus cable shield: $\pm 1\text{ kV}$
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)

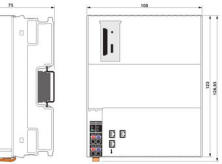
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Drawings

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Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242207
eCl@ss 11.0	27242207
eCl@ss 4.0	27240602
eCl@ss 4.1	27240602
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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / LR / EAC / DNV GL / PRS / KR / NK / ABS / BV / BSH / PROFINET / cULus Listed

Ex Approvals

cULus Listed

Approval details

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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
LR		http://www.lr.org/en	LR2001902TA
EAC			RU*DE*08.B.00529/19
DNV GL		https://approvalfinder.dnvgl.com/	TAA00000DF
PRS		http://www.prs.pl/	TE/1117/880590/20
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
NK		http://www.classnk.or.jp/hp/en/	14A006
ABS		http://www.eagle.org/eagleExternalPortalWEB/	20-2059154-PDA
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36433/B2 BV
BSH			840

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Approvals

PROFINET	Z13073
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cULus Listed	
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Accessories

Accessories

Fan

Fan - AXC F 3 FAN MODULE - 1173450



Fan module for the AXC F 3152

I/O component

Extension module - AXC F IL ADAPT - 1020304



Right-alignable Inline adapter terminal (INTERBUS master) for one PLCnext Control device for setting up a PLCnext Technology Inline station

Extension module - AXC F XT ETH 1TX - 2403115



Left-alignable Ethernet interface, for connection to a compatible modular controller from the PLCnext Control range.

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Accessories

Extension module - AXC F XT IB - 2403018



Left-alignable INTERBUS master, for the connection of INTERBUS remote bus components to a compatible modular controller from the PLCnext Control range.

Power module - AXL F PWR 1H - 2688297



Axioline F, Power module for the logic supply U_{BUS} , max. 4 A, degree of protection: IP20, including bus base module and Axioline F connector

Parameterization memory

Program / configuration memory - SD FLASH 8GB PLCNEXT MEMORY - 1061701



Program and configuration memory for storing the application programs and other files in the file system of the PLC, plug-in, 8 GB.

Program / configuration memory - SD FLASH 2GB PLCNEXT MEMORY - 1043501



Program and configuration memory for storing the application programs and other files in the file system of the PLC, plug-in, 2 GB.

Programming

Software - PLCNEXT ENGINEER - 1046008



Engineering software platform for Phoenix Contact automation controllers. PLCnext Engineer is IEC 61131-3-compliant and is available free of charge under Downloads. Its functionality can be extended using paid add-ins. To do this, open the license configurator via the "Configure" button. [Kostenloser Download PLCnext Engineer Software](https://phoe.co/download_plcnext_engineer)

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Accessories

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