chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Axioline F, Digital output module, Digital outputs: 64, 24 V DC, 500 mA, connection technology: 1-conductor, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

Product description

The module is designed for use within an Axioline F station. It is used to output digital signals. The outputs are protected against short circuit and overload.

Your advantages

- 64 digital outputs
- 24 V DC, 500 mA
- Connection of actuators in 1-conductor technology
- Minimum update time of < 100 µs
- Device rating plate stored

Commercial data

Item number	2702053
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DRI232
Catalog page	Page 109 (C-6-2017)
GTIN	4046356932486
Weight per piece (including packing)	302.4 g
Weight per piece (excluding packing)	260 g
Customs tariff number	85389091
Country of origin	DE

chanhvinh.com

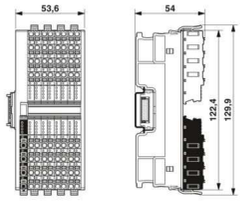
AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Technical data

Dimensions

Dimensional drawing	
Width	53.6 mm
Height	129.9 mm
Depth	54 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Notes

Note on application

Note on application	Only for industrial use

Interfaces

Axioline F local bus

Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

System properties

Module

Input address area	0 Byte
Output address area	8 Byte
Required parameter data	1 Byte
Required configuration data	6 Byte

Output data

Digital:

Output name	Digital outputs
Connection method	Push-in connection
Connection technology	1-conductor
Number of outputs	64
Protective circuit	Short-circuit protection, overload protection of the outputs; electronic
Output voltage	24 V

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Limitation of the voltage induced on circuit interruption	-25.8 V ... -15 V
Maximum output current per module	16 A (provide external protection)
Nominal output voltage	24 V DC
Load min.	10 kΩ
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 µA
Nominal load, inductive	max. 12 VA (1.2 H, 48 Ω, with nominal voltage)
Nominal load, lamp	max. 12 W (at nominal voltage)
Nominal load, ohmic	max. 12 W (48 Ω, with nominal voltage)
Switching frequency	max. 10000 per second (with ohmic load)
	max. 1 per second (with inductive load)
	max. 16 per second (with nominal lamp load)
Reverse voltage resistance to short pulses	limited protection up to 0.5 A for 1 s
Behavior with overload	Shutdown with automatic restart
Behavior with inductive overload	Output can be destroyed
Signal delay	max. 100 µs (when switched on)
	max. 100 µs (during switching off with ohmic nominal load)
Overcurrent shut-down	as of 0.7 A
Output current with ground connection interrupt when switched off	< 1 mA

Product properties

Product type	I/O component
Product family	Axioline F
Type	block modular
Mounting position	any (no temperature derating)
Scope of delivery	including bus base module and Axioline F connectors

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	2.4 W

Potentials: Axioline F local bus supply (U_{Bus})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 120 mA (up to HW 02)
	max. 60 mA (from HW 03)

Potentials: Supply for digital output modules (U_O)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 16 A (Provide external protection; if the total current of 8 A is exceeded, connect the supply at the power connector parallel via both terminal points.)

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Protective circuit	Surge protection; electronic (35 V, 0.5 s)
	Reverse polarity protection; parallel diode; with external 5 A fuse (only for commissioning)

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus (U_{Bus}) / 24 V supply (I/Os)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply of the local bus (U_{Bus}) / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Axioline F connector
Note on the connection method	Please observe the information provided on conductor cross sections in the “Axioline F: system and installation” user manual.

Conductor connection

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

Axioline F connector

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the “Axioline F: system and installation” user manual.
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

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Mounting

Mounting type	DIN rail mounting
Mounting position	any (no temperature derating)

chanhvinh.com

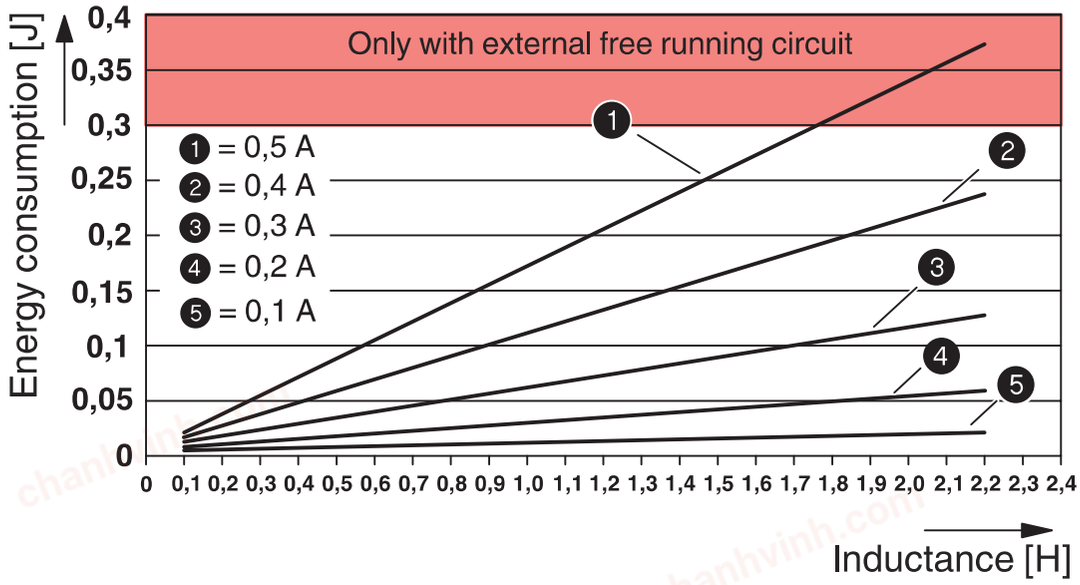
AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

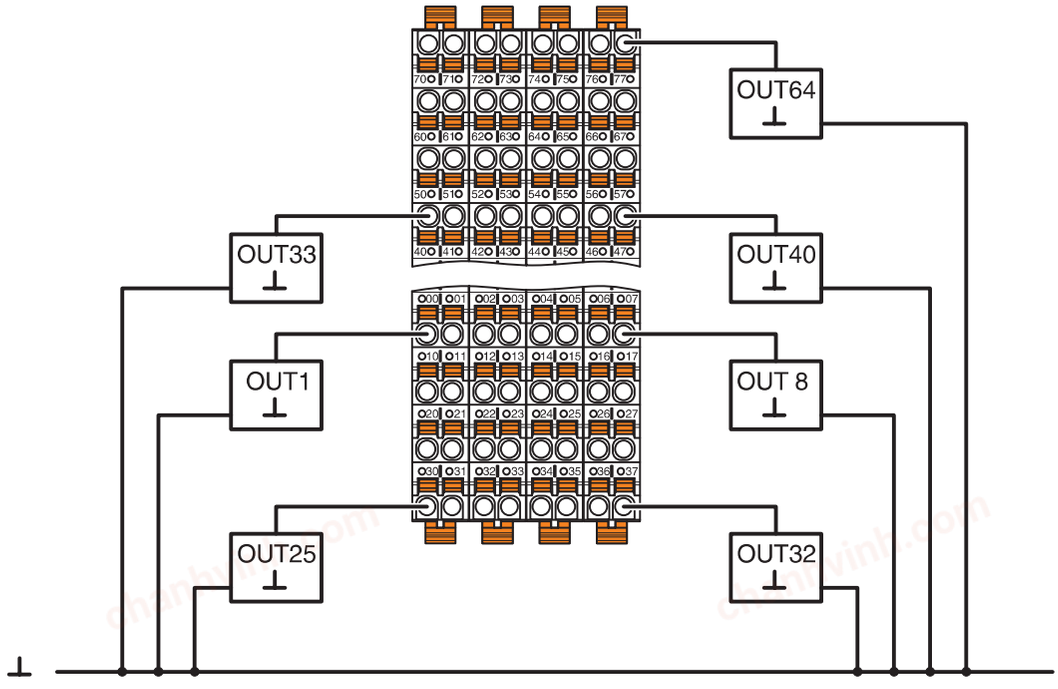
Drawings

Diagram



Maximum outputs power consumption when inductive loads are switched off

Connection diagram



Connection in 1-conductor technology

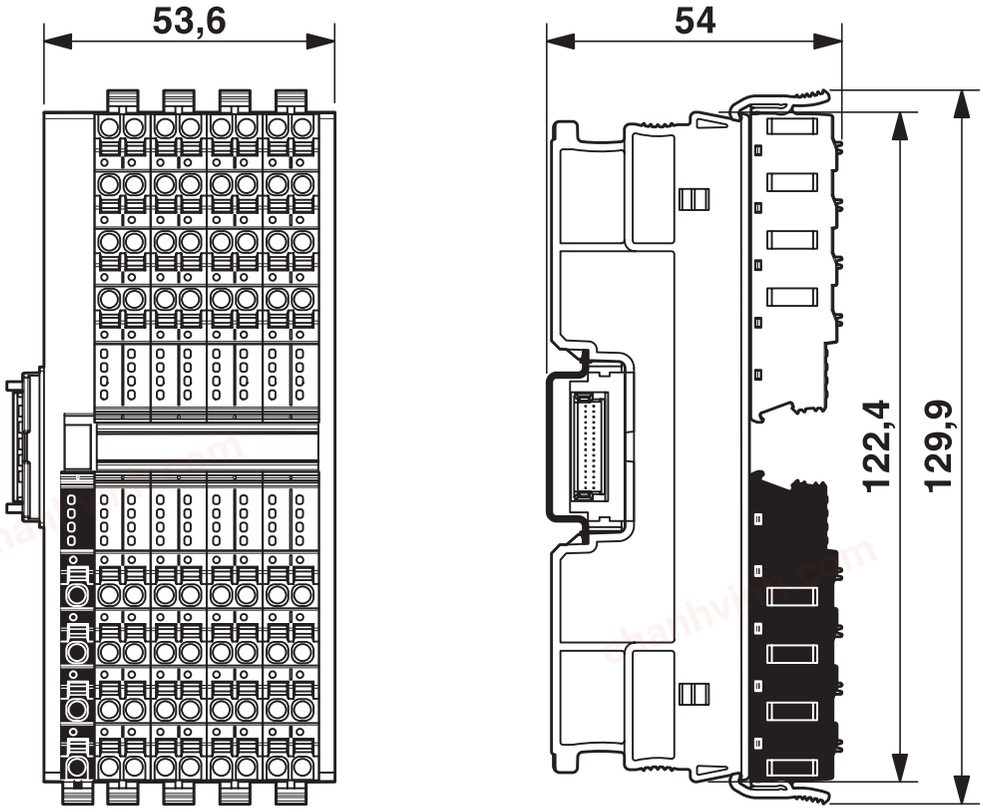
chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

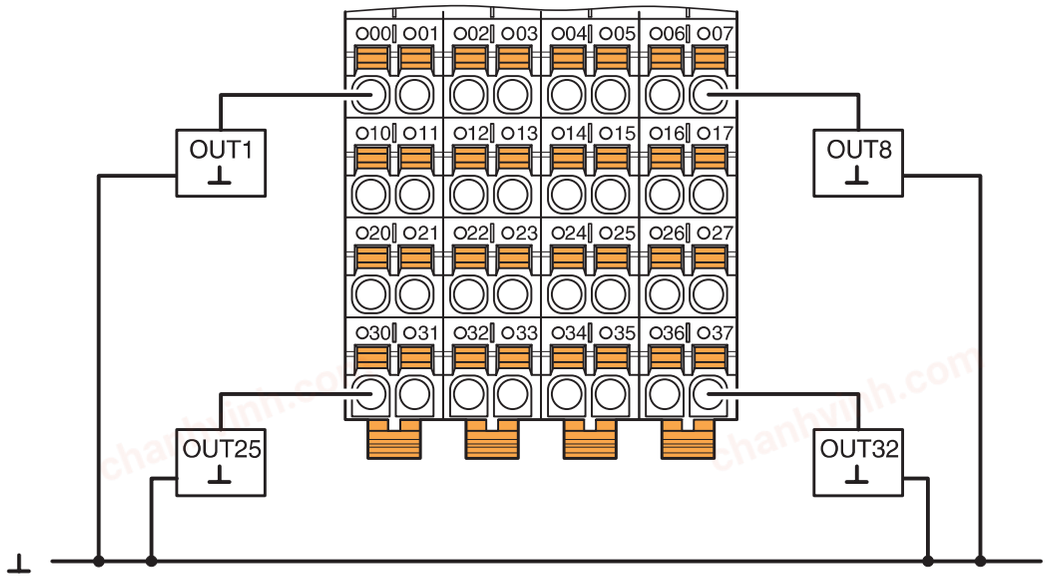
https://www.phoenixcontact.com/pc/products/2702053

Dimensional drawing



Dimensions

Connection diagram



Connection example

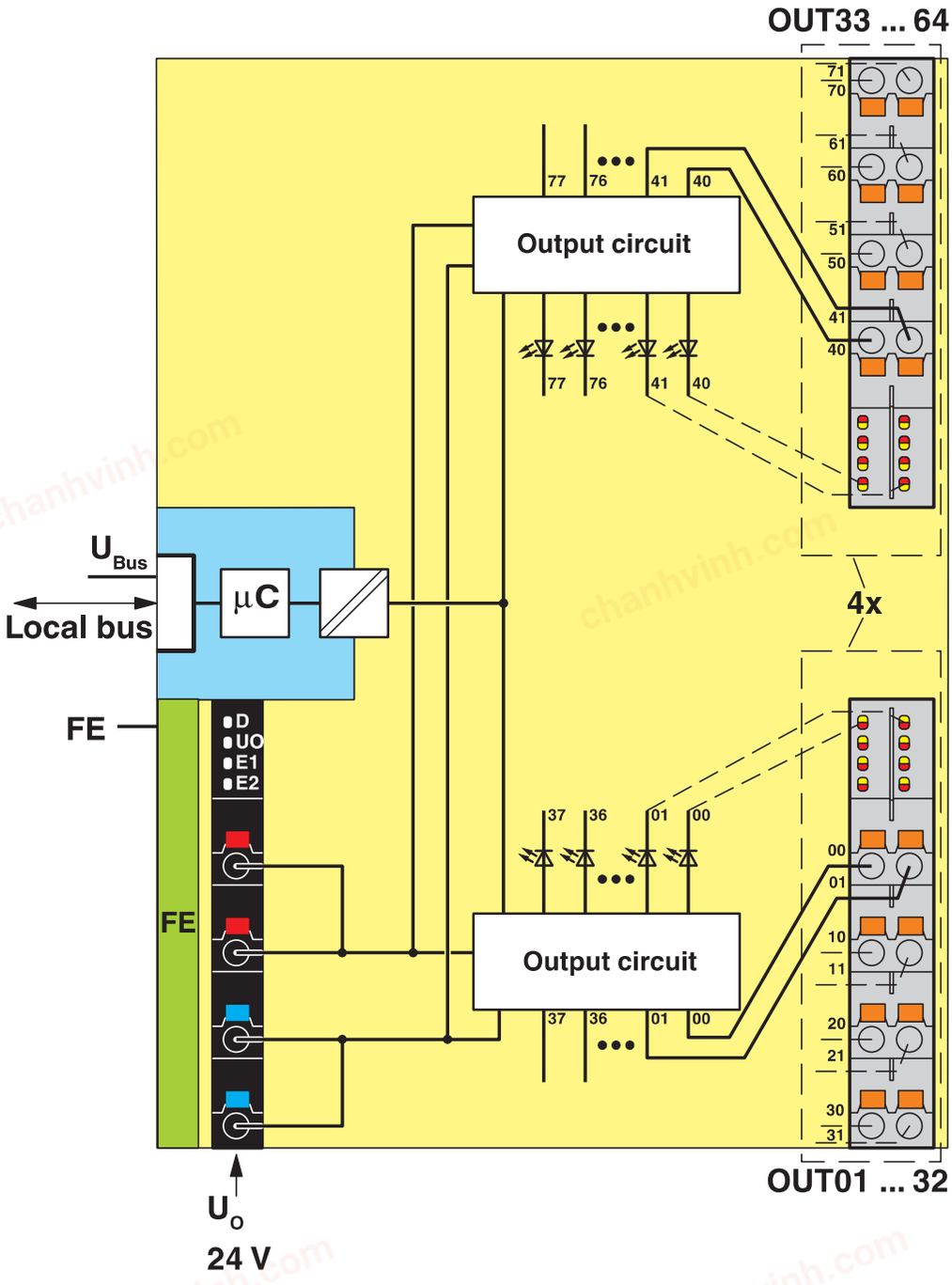
chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Block diagram



Internal wiring of the terminal points

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2702053

DNV GL
Approval ID: TAA00000DF

LR
Approval ID: LR2480202TA

NK
Approval ID: 14A006

BV
Approval ID: 36433/B4 BV

PRS
Approval ID: TE/1020/880590/21

BSH
Approval ID: 840

RINA
Approval ID: ELE008423XG

ABS
Approval ID: 20-2059154-PDA

cULus Listed
Approval ID: E238705

UAE-RoHS
Approval ID: 23-02-63243

cULus Listed
Approval ID: E238705

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599

UNSPSC

UNSPSC 21.0	32151600

chanhvinh.com

AXL F DO64/1 2F - Digital module

2702053

https://www.phoenixcontact.com/pc/products/2702053

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	d964357f-7e1c-4e08-9aeb-1c5ea78b8bbc

EF3.0 Climate Change

CO2e kg	19.47 kg CO2e

Phoenix Contact 2025 © - all rights reserved
https://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com