

# AXL F PSDI8/4 1F - Safety module



2701559

<https://www.phoenixcontact.com/us/products/2701559>

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 input module, Functional safety, PROFIsafe, only for connection to Phoenix Contact or Siemens controller, Digital inputs: 4 (for 2-channel assignment), 8 (for 1-channel assignment), 24 V DC, connection technology: 2-, 3-, 4-conductor, degree of protection: IP20

## Product description

The safety module is an input module from the Axioline F product range designed for use in a PROFIsafe system. The module has four safe digital inputs for two-channel assignment or eight safe digital inputs for single-channel assignment. The inputs can be parameterized according to the application and enable sensors to be integrated into the PROFIsafe system.

## Your advantages

- Up to Cat. 4/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508

## Commercial data

Item number	2701559
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN03
Product key	DNA521
GTIN	4046356770026
Weight per piece (including packing)	257 g
Weight per piece (excluding packing)	222 g
Customs tariff number	85389091
Country of origin	DE

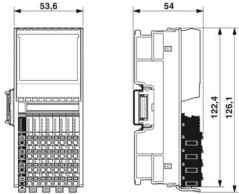
# AXL F PSDI8/4 1F - Safety module

2701559

<https://www.phoenixcontact.com/us/products/2701559>

## Technical data

### Dimensions

Dimensional drawing	
Width	53.6 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	Housing dimensions

### Notes

#### Note on application

Note on application	Only for industrial use
---------------------	-------------------------

### Material specifications

Color (Housing)	yellow (RAL 1018)
-----------------	-------------------

### Interfaces

#### Axioline F local bus

Connection method	Bus base module
-------------------	-----------------

### System properties

#### Programming data (LocalbusSlave)

Input address area	5 Byte
Output address area	5 Byte

#### Fieldbus data telegram

Required parameter data	22 Byte ((I-and F-parameters))
Required configuration data	10 Byte

### Input data

#### Digital:

Input name	Digital inputs
Description of the input	IEC 61131-2 type 3
Number of inputs	4 (for 2-channel assignment) 8 (for 1-channel assignment)
Cable length	max. 1000 m (200 m from the clock output to the safe input (total based on forward and return path))

# AXL F PSDI8/4 1F - Safety module



2701559

<https://www.phoenixcontact.com/us/products/2701559>

Connection method	Push-in connection
Connection technology	2-, 3-, 4-conductor
Input voltage	24 V DC (via clock outputs T1 and T2 or external supply)
Input voltage range	-3 V DC ... 30 V DC
Nominal input voltage $U_{IN}$	24 V DC
Nominal input current at $U_{IN}$	typ. 4.2 mA
Typical input current per channel	4.2 mA
Input filter time	1.5 ms
	3 ms (Default)
	5 ms
	15 ms

## Product properties

Product type	I/O component
Product family	Axioline F
Application	Functional safety
	PROFIsafe
	only for connection to Phoenix Contact or Siemens controller
Type	modular

## Electrical properties

Maximum power dissipation for nominal condition	2 W
Transmission medium	Copper

### Potentials

Protective circuit	Protection against polarity reversal, EMC protective circuit, undervoltage detection
--------------------	--

### Potentials: Axioline F local bus supply ( $U_{BUS}$ )

Supply voltage	5 V DC (via bus base module)
Current draw	max. 310 mA
	typ. 280 mA (all inputs set; supply by $U_I$ of 19.2 V DC ... 30 V DC)

### Potentials: Supply for digital input modules ( $U_I$ )

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	typ. 9 mA (all inputs set; supply from $U_I$ with 30 V DC; without supply to the sensors via clock supplies T1 and T2)
Current consumption	9 mA

## Connection data

Connection technology	
Connection name	Axioline F connector
pluggable	yes

Axioline F connector

# AXL F PSDI8/4 1F - Safety module



2701559

<https://www.phoenixcontact.com/us/products/2701559>

Connection method	Push-in connection
pluggable	yes
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

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-35 °C ... 60 °C (Mounting position: any)
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 108 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 75 % (on average, 85% infrequently, non-condensing)
Permissible humidity (storage/transport)	10 % ... 75 % (non-condensing)

## Standards and regulations

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

## Mounting

Mounting type	DIN rail mounting
---------------	-------------------

# AXL F PSDI8/4 1F - Safety module

2701559

<https://www.phoenixcontact.com/us/products/2701559>

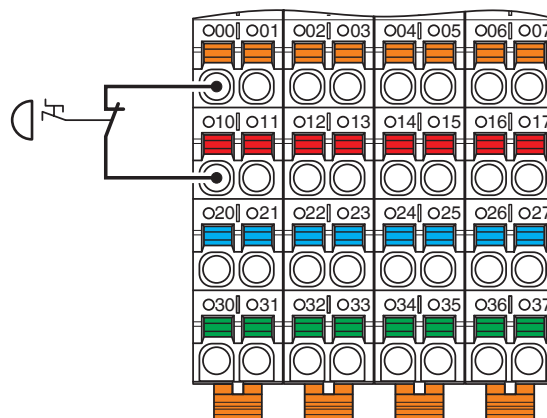


## Drawings

Dimensional drawing



Connection diagram



Connection example for an emergency stop circuit

# AXL F PSDI8/4 1F - Safety module



2701559

<https://www.phoenixcontact.com/us/products/2701559>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2701559>



**DNV GL**

Approval ID: TAA00000DF

**BSH**

Approval ID: 840



**cULus Listed**

Approval ID: E238705



**cULus Listed**

Approval ID: E238705

**PROFIsafe**

Approval ID: Z20119



**Functional Safety**

Approval ID: 968/EZ 650.04/20

**FS Thermoprocess**

Approval ID: 968 INS 799.01 25

# AXL F PSDI8/4 1F - Safety module



2701559

<https://www.phoenixcontact.com/us/products/2701559>

## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604
ECLASS-15.0 ASSET	27250101

### ETIM

ETIM 10.0	EC001599
-----------	----------

### UNSPSC

UNSPSC 21.0	32151600
-------------	----------

## 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	4f074b40-390c-417f-a38e-88d460eb2c47

### EF3.1 Climate Change

CO2e kg	8.357 kg CO2e
---------	---------------