

## I/O module - AXL F DO8/2 2A 1H - 2688381

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Axioline F, Digital output module, Digital outputs: , 24 V DC, 2 A, connection method: 2-wire, 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

- 8 digital outputs
- 24 V DC, 2 A
- Connection of actuators in 2-wire technology
- Minimum update time of < 150 µs
- Device rating plate stored



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 606479
GTIN	4046356606479
Weight per Piece (excluding packing)	189.000 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Dimensions

Width	35 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715).

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### Technical data

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
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)
Degree of protection	IP20

#### Connection data

Designation	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 solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	16
Stripping length	8 mm

#### General

Mounting type	DIN rail
Color	traffic grey A RAL 7042
Net weight	189 g
Note on weight specifications	with connectors and bus base module
Mounting position	any (no temperature derating)

#### Interfaces

Designation	Axioline F local bus
No. of channels	2
Connection method	Bus base module
Transmission speed	100 Mbps

#### Axioline potentials

Designation	Axioline F local bus supply ( $U_{BUS}$ )
Supply voltage	5 V DC (via bus base module)
Current consumption	max. 150 mA
Power consumption	max. 750 mW
Designation	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)

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#### Axioline potentials

Current consumption	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.)
Power consumption	max. 480 W (of which 625 mW with internal losses)
Protective circuit	Surge protection of the supply voltage electronic (35 V, 0.5 s)
	Polarity reversal protection of the supply voltage parallel diode; with external 5 A fuse (only for commissioning)
Protection	max. 16 A (polarity reversal protection up to 5 A)

#### Digital outputs

Output name	Digital outputs
Connection method	Push-in connection
Connection technology	2-wire
Number of outputs	8
Protective circuit	Short-circuit protection, overload protection of the outputs electronic
Output voltage	24 V
Nominal output voltage	24 V DC
Maximum output current per channel	2 A
Maximum output current per module	16 A (provide external protection)
Nominal load, inductive	max. 48 VA (1.2 H, 12 Ω, at nominal load)
Nominal load, lamp	max. 48 W (at nominal voltage)
Nominal load, ohmic	max. 48 W (12 Ω, at nominal load)
Switching frequency	max. 3000 per second (with ohmic load)
Load min.	10 kΩ
Derating	For channel groups 1 ... 4 and 5 ... 8: 8 A to 30°C, then dropping linearly to 6 A at 60°C
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 μA
Behavior with overload	Shutdown with automatic restart
Behavior with inductive overload	Output can be destroyed
Reverse voltage resistance to short pulses	limited protection up to 0.5 A for 1 s

#### Electrical isolation

Test section	5 V communications power (logic), 24 V supply (I/O) 500 V AC 50 Hz 1 min.
	5 V supply (logic)/functional earth ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.

#### Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

#### Environmental Product Compliance

# I/O module - AXL F DO8/2 2A 1H - 2688381

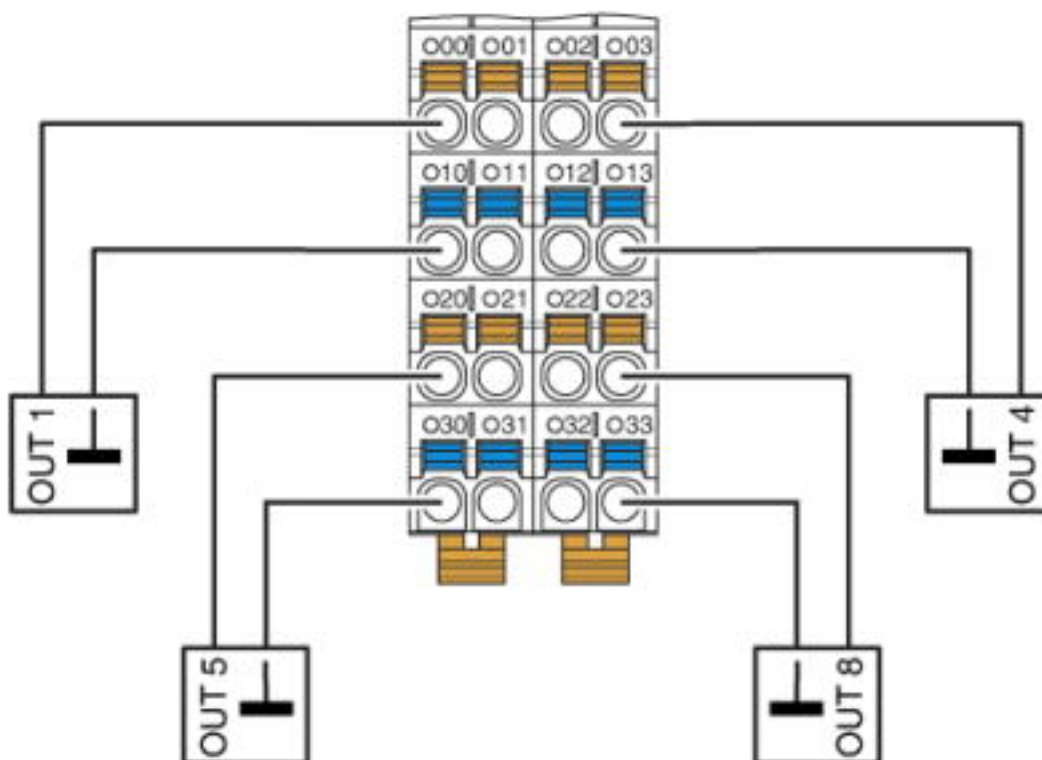
## Technical data

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

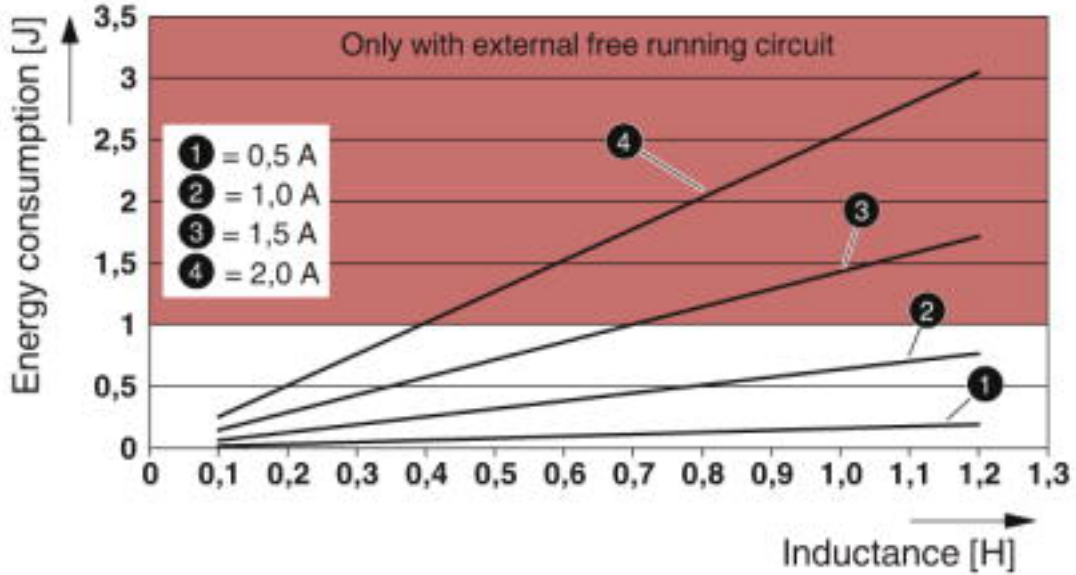
## Drawings

Connection diagram



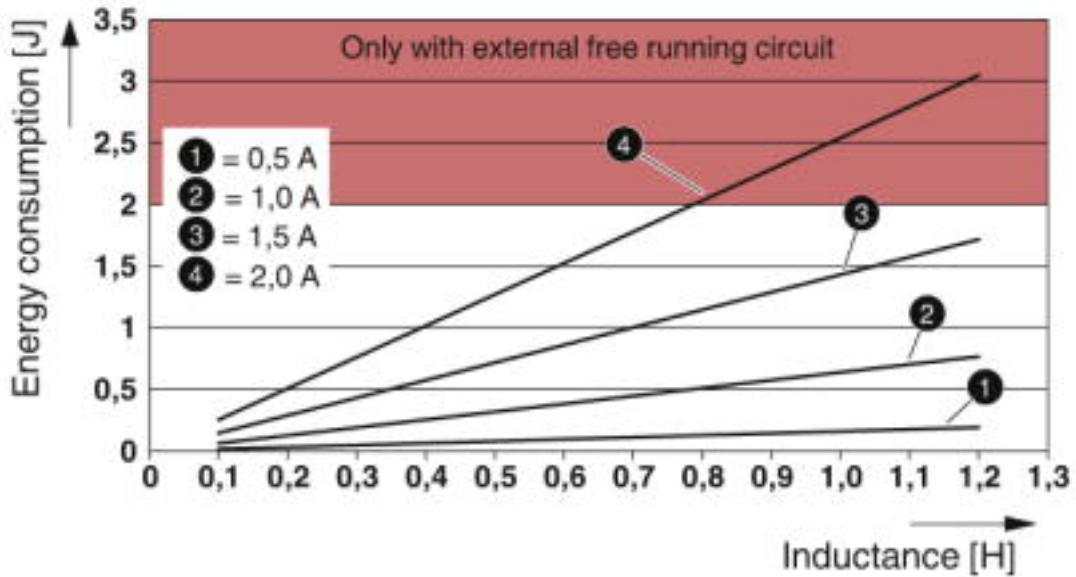
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Diagram



Maximum energy consumption of the outputs when switching off inductive loads with 100 % simultaneity

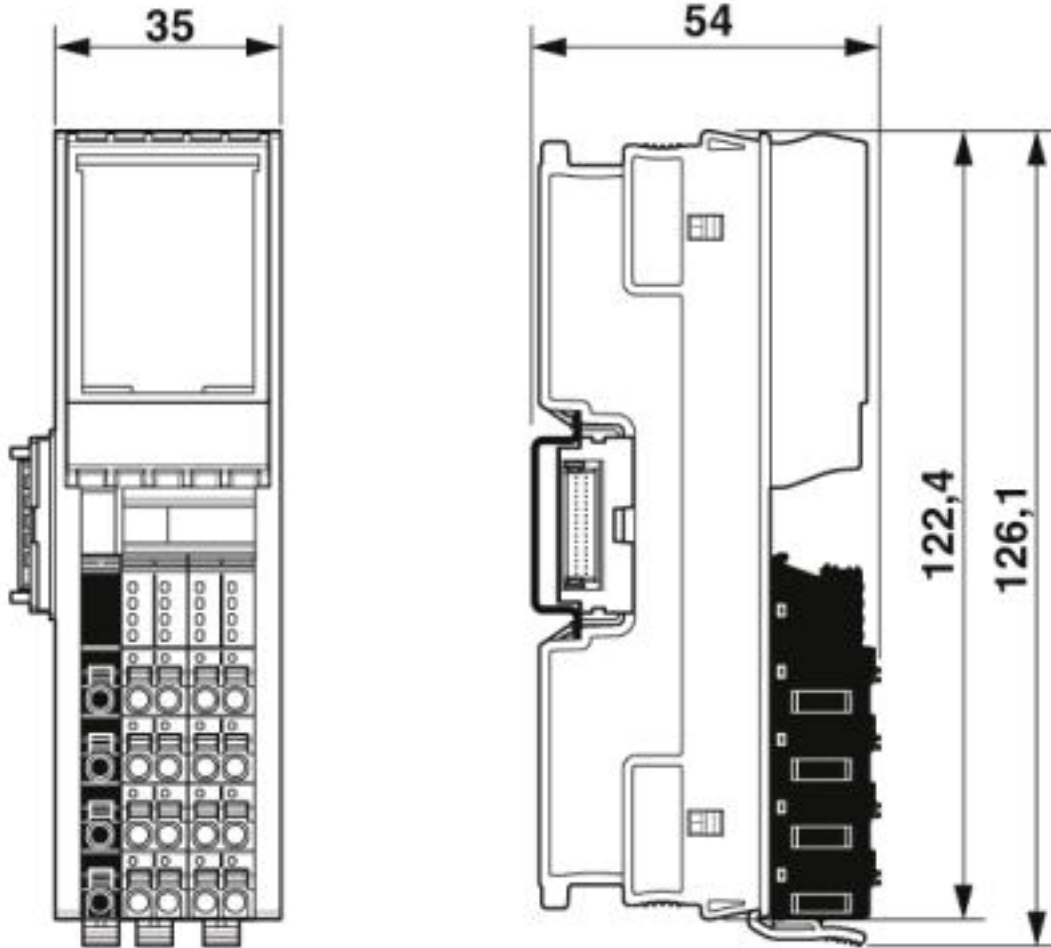
Diagram



Maximum energy consumption of the outputs when switching off inductive loads with 50 % simultaneity

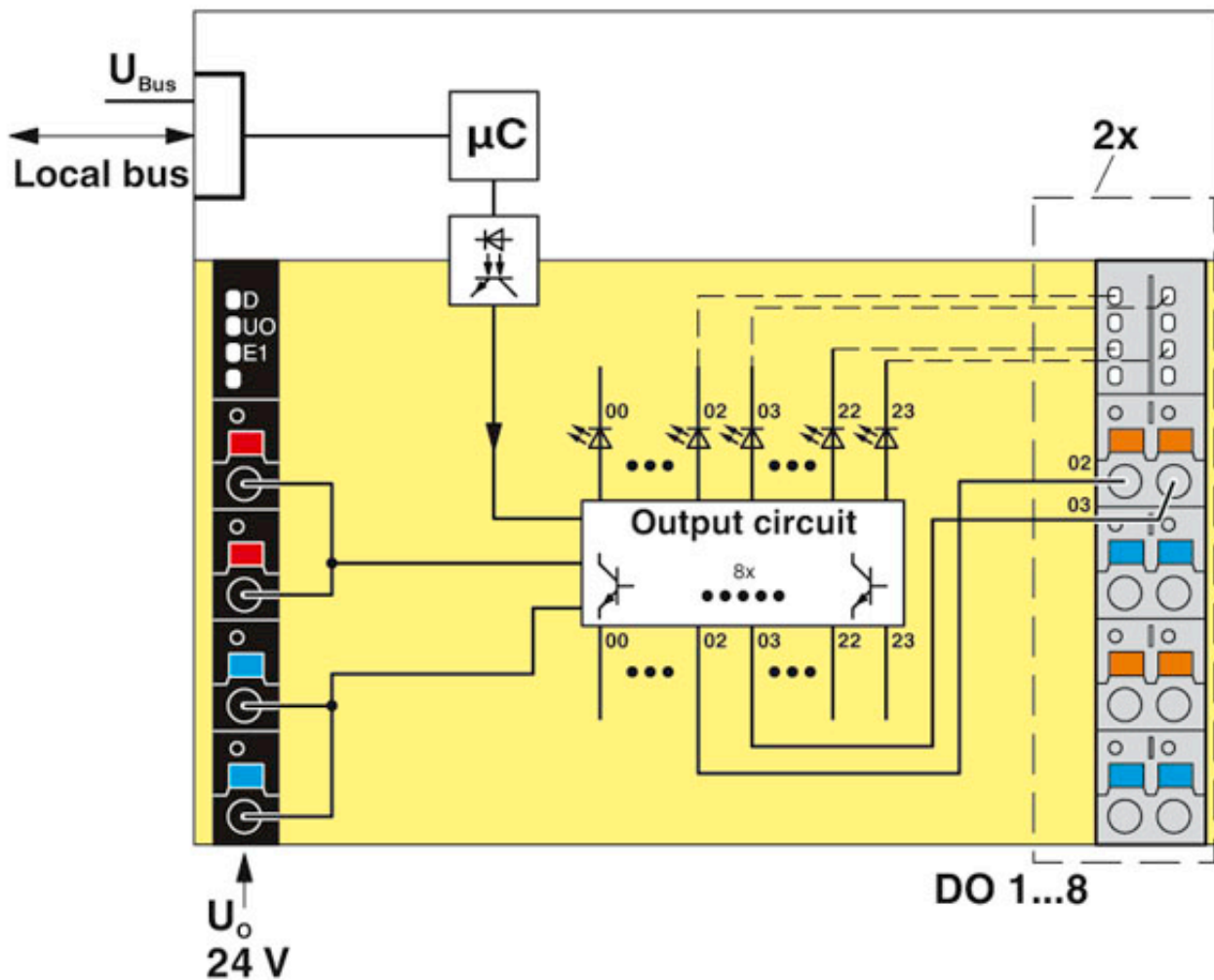
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Dimensional drawing



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Block diagram



Internal wiring of the terminal points

## Classifications

eCl@ss

eCl@ss 4.0	27240400
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### Classifications

#### eCl@ss

eCl@ss 4.1	27240400
eCl@ss 5.0	27242200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

#### ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

#### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602

### Approvals

#### Approvals

##### Approvals

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

##### Ex Approvals










#### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA00000DF
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KR		<a href="http://www.krs.co.kr/eng/main/main.aspx">http://www.krs.co.kr/eng/main/main.aspx</a>	HMB17372-AC002
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## Approvals

NK		<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	14A006
ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	18-HG1767360-PDA
BSH		<a href="http://www.bsh.de/de/index.jsp">http://www.bsh.de/de/index.jsp</a>	840
RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE256518XG
UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
EAC			EAC-Zulassung
LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	14-20019
PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2239/880590/19
BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	36433/B0 BV
cULus Listed			



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