

I/O module - AXL F DO32/1 1F - 2688051

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Axioline F, Digital output module, Digital outputs: , 24 V DC, 500 mA, connection method: 1-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

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



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 501576 |
| GTIN | 4046356501576 |
| Weight per Piece (excluding packing) | 235.600 g |
| Custom tariff number | 85389091 |
| Country of origin | Germany |

Technical data

Dimensions

| Caption | Dimensions |
|---------|------------|
| Width | 53.6 mm |
| Height | 126.1 mm |
| Depth | 54 mm |

I/O module - AXL F DO32/1 1F - 2688051

Technical data

Dimensions

| | |
|--------------------|---|
| Note on dimensions | The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715). |
|--------------------|---|

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. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 16 |
| Stripping length | 8 mm |

General

| | |
|-------------------------------|-------------------------------------|
| Mounting type | DIN rail |
| Color | traffic grey A RAL 7042 |
| Net weight | 235.6 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. 120 mA (up to HW 04) |
| | max. 60 mA (from HW 05) |
| Power consumption | max. 600 mW (up to HW 04) |

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Technical data

Axioline potentials

| | |
|----------------------|--|
| | max. 300 mW (from HW 05) |
| Designation | Supply for digital output modules (U ₀) |
| Supply voltage | 24 V DC |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current consumption | max. 8 A (up to HW 04, provide external protection) |
| | max. 16 A (from HW 05, 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 (from HW 05, of which max. 2.4 W constitute internal losses) |
| | max. 240 W (up to HW 04, of which 1.5 W constitute 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. 8 A (up to HW 04, protection against polarity reversal up to 5 A) |
| | max. 16 A (from HW 05, protection against polarity reversal up to 5 A) |

Digital outputs

| | |
|--|---|
| Output name | Digital outputs |
| Connection method | Push-in connection |
| Connection technology | 1-wire |
| Number of outputs | 32 |
| Protective circuit | Short-circuit protection, overload protection of the outputs electronic |
| Output voltage | 24 V DC |
| Nominal output voltage | 24 V DC |
| Maximum output current per channel | 500 mA |
| Maximum output current per module | 8 A (up to HW 04, provide external protection) |
| 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. 5500 per second (with ohmic load) |
| Load min. | 10 kΩ |
| 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. |

I/O module - AXL F DO32/1 1F - 2688051

Technical data

Standards and Regulations

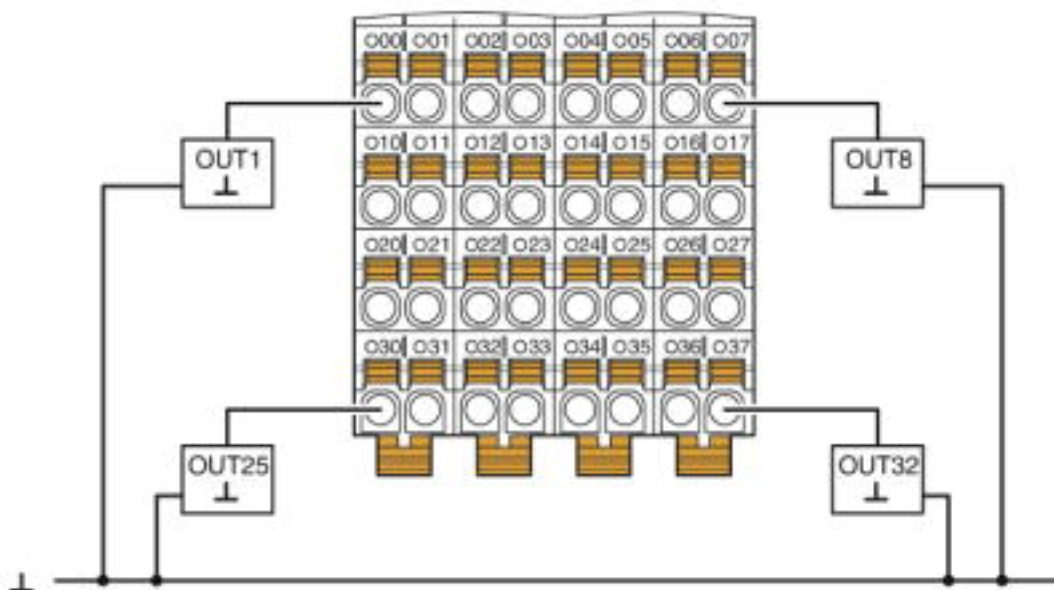
| | |
|------------------|---|
| Mechanical tests | Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g |
| | Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g |
| | Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g |
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1)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

Environmental Product Compliance

| | |
|------------|---|
| | 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

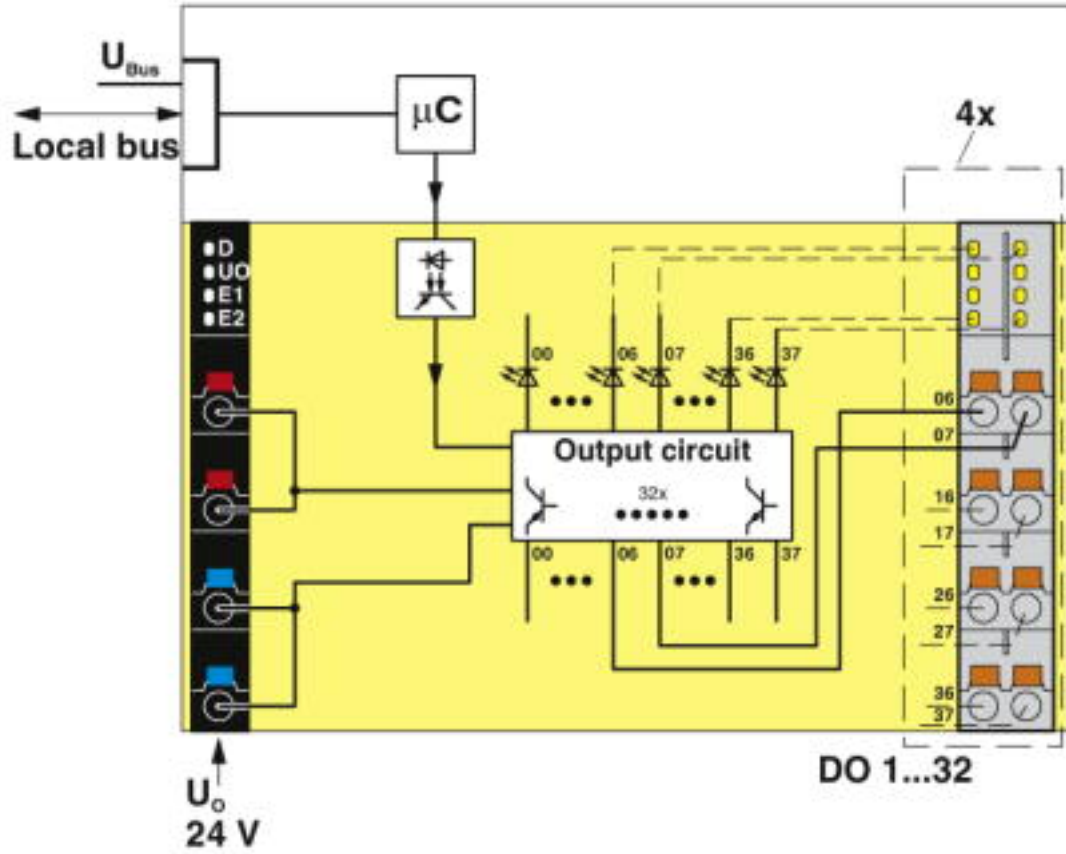
Connection diagram



Connection example

I/O module - AXL F DO32/1 1F - 2688051

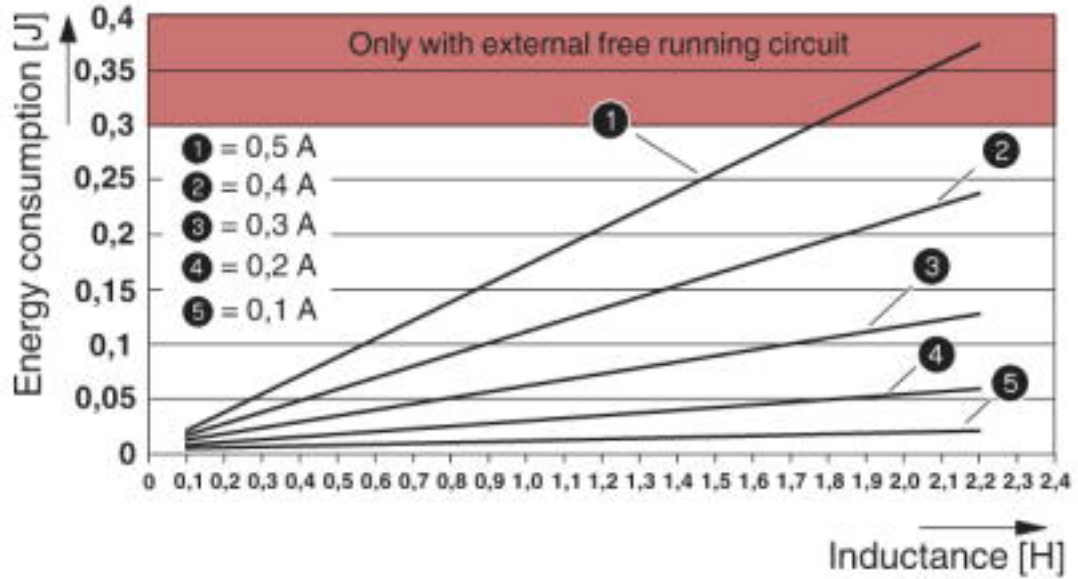
Block diagram



Internal wiring of the terminal points

I/O module - AXL F DO32/1 1F - 2688051

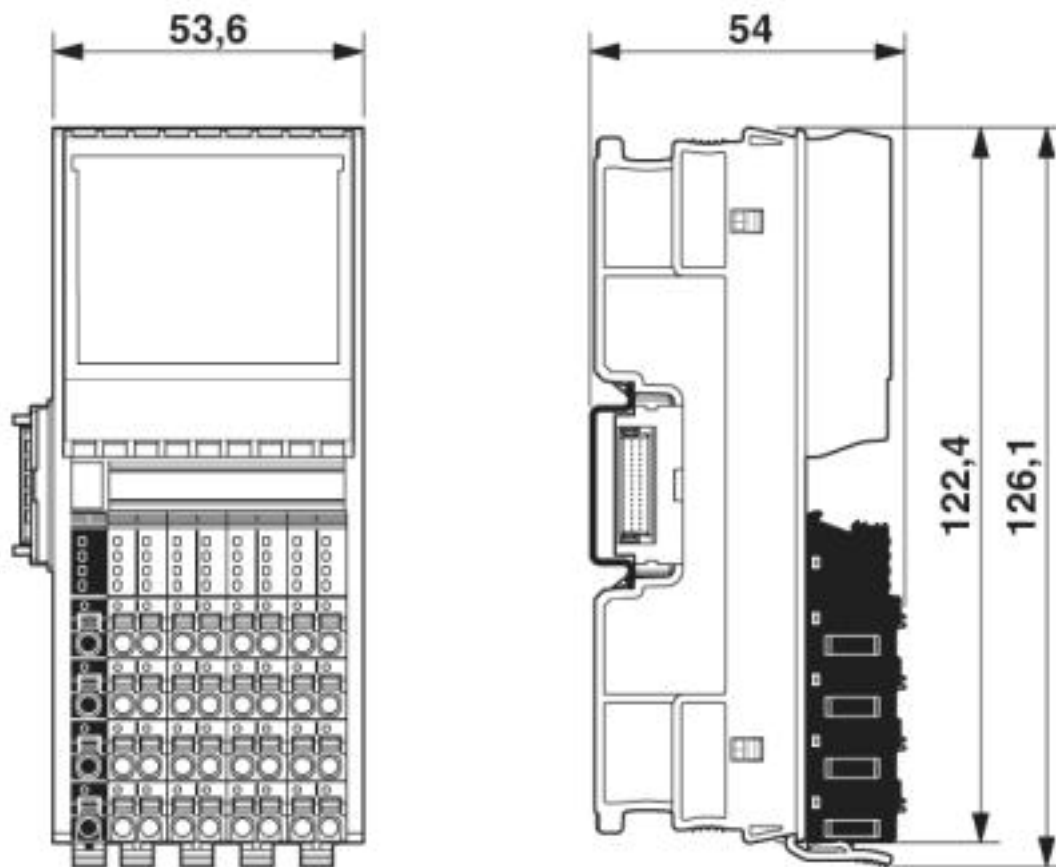
Diagram



Maximum outputs power consumption when inductive loads are switched off

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Dimensional drawing



Dimensions

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27240400 |
| 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 4.0 | EC001601 |
| ETIM 5.0 | EC001599 |
| ETIM 6.0 | EC001599 |
| ETIM 7.0 | EC001599 |



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Classifications

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











Ex Approvals

Approval details

| | | | |
|--------|---|---|-------------------|
| DNV GL |  | https://approvalfinder.dnvgl.com/ | TAA00000DF |
| PRS |  | http://www.prs.pl/ | TE/2239/880590/19 |
| BV |  | http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials | 36433/B0 BV |
| LR |  | http://www.lr.org/en | 14-20019 |
| KR |  | http://www.krs.co.kr/eng/main/main.aspx | HMB17372-AC002 |
| ABS | | http://www.eagle.org/eagleExternalPortalWEB/ | 18-HG1767360-PDA |
| BSH | | http://www.bsh.de/de/index.jsp | 840 |

I/O module - AXL F DO32/1 1F - 2688051

Approvals




| | | | |
|------------|---|---|-------------------|
| RINA |  | http://www.rina.org/en | ELE256518XG |
| 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 |
| EAC |  | | EAC-Zulassung |
| LR |  | http://www.lr.org/en | 14-20019 |
| 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 |
| ABS | | http://www.eagle.org/eagleExternalPortalWEB/ | 18-HG1767360-PDA |
| PRS |  | http://www.prs.pl/ | TE/2239/880590/19 |
| DNV GL |  | https://approvalfinder.dnvgl.com/ | TAA00000DF |
| BV |  | http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials | 36433/B0 BV |

<https://www.phoenixcontact.com/gb/products/2688051>



I/O module - AXL F DO32/1 1F - 2688051

Approvals

| | | | |
|------|---|---|----------------|
| RINA |  | http://www.rina.org/en | ELE256518XG |
| BSH | | http://www.bsh.de/de/index.jsp | 840 |
| KR |  | http://www.krs.co.kr/eng/main/main.aspx | HMB17372-AC002 |
| EAC |  | | EAC-Zulassung |

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