Product description

The module is an Axioline P I/O module for use in the Axioline P modular I/O system. The module is a modular I/O device that can be affixed to the Axioline P local bus, to communicate I/O data up to the Axioline P bus coupler, which forms the head of the station. As an intrinsic safety I/O module, this device allows direct connection from intrinsically safe field I/O to the terminals of the module. The module is fully hot-swappable on the Axioline P local bus, which also provides power to the module. The module digital output characteristics of 21 V DC and 60 mA allow the connection of up to four solenoid driven, digital output signals.

Your advantages

• Four 21 V DC - 60 mA digital output-powered control signals for solenoid drives
• Intrinsically safe digital outputs with connection to Zone 1, Zone 0 or Division 1
• Temperature range: -40 °C ... +70 °C
• Hot-swappable

Commercial data

<table>
<thead>
<tr>
<th>Item number</th>
<th>1087078</th>
</tr>
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<tbody>
<tr>
<td>Packing unit</td>
<td>1 pc</td>
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<tr>
<td>Sales key</td>
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<td>Product key</td>
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<td>(including packing)</td>
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<td>Weight per piece</td>
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<td>(excluding packing)</td>
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<td>Country of origin</td>
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Technical data

Dimensions

<table>
<thead>
<tr>
<th>Dimensional drawing</th>
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</thead>
<tbody>
<tr>
<td>Width</td>
</tr>
<tr>
<td>Height</td>
</tr>
<tr>
<td>Depth</td>
</tr>
<tr>
<td>Note on dimensions</td>
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Notes

<table>
<thead>
<tr>
<th>Utilization restriction</th>
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<tr>
<td>EMC note</td>
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<table>
<thead>
<tr>
<th>Utilization restriction</th>
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</thead>
<tbody>
<tr>
<td>CCCex note</td>
</tr>
</tbody>
</table>

Material specifications

| Color | traffic grey A RAL 7042 |

Interfaces

<table>
<thead>
<tr>
<th>Axioline P local bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection method</td>
</tr>
<tr>
<td>Transmission speed</td>
</tr>
</tbody>
</table>

Output data

<table>
<thead>
<tr>
<th>Digital</th>
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<tbody>
<tr>
<td>Output name</td>
</tr>
<tr>
<td>Connection method</td>
</tr>
<tr>
<td>Connection technology</td>
</tr>
<tr>
<td>Number of outputs</td>
</tr>
<tr>
<td>Protective circuit</td>
</tr>
<tr>
<td>Output voltage</td>
</tr>
<tr>
<td>Maximum output current per channel</td>
</tr>
<tr>
<td>Nominal output voltage</td>
</tr>
</tbody>
</table>

Product properties
Type: block modular

Product type: I/O component

Product family: Axioline P

Mounting position: any (no temperature derating)

Scope of delivery: including bus base module and connectors

Insulation characteristics

Overvoltage category: II

Pollution degree: 2

Electrical properties

Potentials: Supply of the logic voltage $U_L$

Supply voltage range: 19.2 V DC ... 30 V DC (via bus base module ($U_L$) at AXL P BK...)

Potentials: Supply of the Axioline P local bus $U_{Bus}$

Supply voltage: 5 V DC (via bus base module)

Current draw: max. 135 mA

Potentials: Axioline P extension module supply voltage

Supply voltage: $U_L$ (via bus base module)

Current draw: max. 455 mA (via bus base module)

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus ($U_{Bus}$) / functional ground

Test voltage: 24 V supply (I/O) / functional ground

Test voltage: Field to functional earth

Test voltage: Field to 5 V and 24 V supplies

500 V AC, 62 Hz, 1 min.

500 V AC, 62 Hz, 1 min.

500 V AC, 62 Hz, 1 min.

1500 V AC, 62 Hz, 1 min.

Connection data

Connection technology

Connection name: Axioline P connector

Note on the connection method: Please observe the information provided on conductor cross sections in the “Axioline P: 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 P connector

Connection method: Push-in connection

Note on the connection method: Please observe the information provided on conductor cross sections in the “Axioline P: 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
Degree of protection
IP20
Ambient temperature (operation)
-40 °C ... 70 °C (Standard)
Degree of protection
IP20
Air pressure (operation)
70 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)
70 kPa ... 106 kPa (up to 2000 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)

Approvals

ATEX
Identification
II 3(1) G Ex ec [ia IIB Ga] IIC T4 Gc
II (1) D [Ex ia Da] IIIC
Certificate
DEMKO 20 ATEX 2370X

IECEx
Identification
Ex ec [ia IIB Ga] IIC T4 Gc
[Ex ia Da] IIIIC
Certificate
IECEEx UL 20.0044X

UKCA Ex (UKEX)
Identification
II 3(1) G Ex ec [ia IIB Ga] IIC T4 Gc
II (1) D [Ex ia Da] IIIC
Certificate
UL22UKEX2508X

Ex data
UL, USA / Canada
Ind. Cont. Eq. (E238705) also Listed
Ind. Cont. Eq. for haz. loc. E196811
Install in: Class I, Div. 2, Groups A, B, C, D T4
Intrinsically safe outputs for: Class I, Groups C, D; Class II,
Groups E, F, G; Class III; [Ex ia] Haz loc
Class I, Zone 2, AEx ec [ia IIB Ga] IIC T4 Gc
[AEx ia Da] IIIIC
Ex ec [ia IIB Ga] IIC T4 Gc
[Ex ia Da] IIIIC

Mounting

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

### Safety data

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Max. output voltage $U_o$</td>
<td>24.8 V</td>
</tr>
<tr>
<td>Max. output current $I_o$</td>
<td>180 mA</td>
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<tr>
<td>Max. output power $P_o$</td>
<td>1116 mW</td>
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<tr>
<td>Safety-related maximum voltage $U_m$</td>
<td>250 V</td>
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<tr>
<td>C/IIB, IIIC: Max. external inductivity $L_o$ / Max. external capacitance $C_o$</td>
<td>/ 0.86 µF</td>
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<td>D/IIA, E, F, G, Class III: Max. external inductivity $L_o$ / Max. external capacitance $C_o$</td>
<td>/ 3.05 µF</td>
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<tr>
<td>C/IIB, IIIC: Max. external inductivity $L_o$ / Max. external capacitance $C_o$</td>
<td>2.779 mH</td>
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<td>D/IIA, E, F, G, Class III: Max. external inductivity $L_o$ / Max. external capacitance $C_o$</td>
<td>7.168 mH</td>
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Safe area
Class I, Division 2, Groups ABCD, T4
Class I, Zone 2, IIC, T4
Zone 2, IIC, T4
Class I/II/III, Division 1, Groups CDEFG
Class I, Zone 0, IIB
Class II, Zone 20, IIIC
Zone 0, IIB
Zone 20, IIIC

U_i \geq U_O
I_i \geq I_O
P_i \geq P_O
C_i + C_{cable} \leq C_O
L_i + L_{cable} \leq L_O

U_M

AXL P EX IS DO4 SD 21-60 1F - Digital module

AXL P EX IS DO4 SD 21-60 1F - Digital module

Dimensional drawing

53,6

77,1

122,4

126,1

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1087078

- **UL Listed**
  Approval ID: FILE E 238705

- **cUL Listed**
  Approval ID: FILE E 238705

- **IECEx**
  Approval ID: IECEx UL 20.0044X

- **cUL Listed**
  Approval ID: FILE E 196811

- **UL Listed**
  Approval ID: FILE E 196811

- **ATEX**
  Approval ID: DEMKO 20 ATEX 2370X

- **CCC**
  Approval ID: 2021122316114727

- **cULus Listed**

- **cULus Listed**
### Classifications

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Environmental product compliance

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<th>REACH SVHC</th>
<th>Lead 7439-92-1</th>
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<td>Dechlorane Plus</td>
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<tr>
<th>China RoHS</th>
<th>Environmentally Friendly Use Period = 25;</th>
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<td>For information on hazardous substances, refer to the manufacturer's declaration available under “Downloads”</td>
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</table>
AXL P EX IS DO4 SD 21-60 1F - Digital module


Accessories

AXL P BS F2 - Bus connector

1052428

AXL P bus base module for housing type F2

AXL SHIELD SET - Shield connection

2700518

Axioline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)
AXL F/P IO EX PP - Separating plate

1100201

Axioline F/P partition plate for intrinsically safe modules

AXL P TERM PAIR - Termination block

2316402

Axioline P terminator pair
ZB 20,3 AXL UNPRINTED - Zack marker strip

Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

AXL P TERM PAIR - Termination block

Axiline P terminator pair
AXL P EX IS DO4 SD 21-60 1F - Digital module

1087078

AXL P BS F2 - Bus connector

1052428

Axioline P bus base module for housing type F2