

IB IL AO 4/U/0-10-ECO - Analog module

2702498

<https://www.phoenixcontact.com/us/products/2702498>

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Inline, Analog output terminal, Analog outputs: 4, 0 V ... 10 V, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector

Product description

The terminal is designed for use within an Inline station. It is used to output analog voltage signals. The output values are depicted in standardized representation format. Inline ECO terminals are approved for the temperature range from 0°C to +55°C. The electronics base and Inline connector are supplied as standard.

Your advantages

- 4 analog output channels
- Connection of actuators in 2-conductor technology
- Voltage range: 0 V ... 10 V
- Data format: standardized representation
- Resolution: 12 bits
- Diagnostic indicator

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2702498 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DR01 |
| Product key | DRI142 |
| GTIN | 4055626204475 |
| Weight per piece (including packing) | 74.2 g |
| Weight per piece (excluding packing) | 74.2 g |
| Customs tariff number | 85389099 |
| Country of origin | DE |

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Technical data

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 12.2 mm |
| Height | 119.8 mm |
| Depth | 71.5 mm |

Notes

Note on application

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

Interfaces

Inline local bus

| | |
|----------------------|--------------------|
| Number of interfaces | 2 |
| Connection method | Inline data jumper |
| Transmission speed | 500 kbps |

System properties

Module

| | |
|-----------------------------|--------|
| ID code (dec.) | 125 |
| ID code (hex) | 7D |
| Length code (hex) | 04 |
| Length code (dec) | 04 |
| Process data channel | 64 bit |
| Input address area | 0 Byte |
| Output address area | 8 Byte |
| Register length | 64 bit |
| Required parameter data | 1 Byte |
| Required configuration data | 4 Byte |

Output data

Analog:

| | |
|--|------------------------|
| Output name | Analog outputs |
| Connection technology | 2-conductor |
| Note regarding the connection technology | shielded, twisted pair |

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| | |
|---------------------------------|---|
| Number of outputs | 4 |
| D/A converter resolution | 12 bit |
| Protective circuit | Short-circuit and overload protection; Electronic Transient protection; Suppressor diode |
| Data formats | Standardized representation |
| Representation of output values | 16 bits |
| Process data update | < 10 ms |
| Voltage output signal | 0 V ... 10 V |
| Load/output load voltage output | > 2 kΩ |

Product properties

| | |
|-----------------------|--|
| Product type | I/O component |
| Product family | Inline |
| Type | modular |
| Installation location | Control cabinet |
| Scope of supply | including Inline connector |
| Diagnostics messages | Failure of the internal I/O supply I/O error message sent to the bus coupler Checksum error I/O error message sent to the bus coupler |

Electrical properties

| | |
|---|-------|
| Maximum power dissipation for nominal condition | 1.6 W |
|---|-------|

Potentials: Communications power (U_L)

| | |
|----------------|-------------------------------|
| Supply voltage | 7.5 V DC (via voltage jumper) |
| Current draw | max. 70 mA typ. 60 mA |

Potentials: Supply of analog modules (U_{ANA})

| | |
|----------------------|--|
| Supply voltage | 24 V DC (via voltage jumper) |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current draw | max. 45 mA typ. 35 mA |

Electrical isolation/isolation of the voltage ranges

| | |
|---|------------------------|
| Test voltage: Bus logic (local bus, communications power) | 500 V AC, 50 Hz, 1 min |
| Test voltage: Analog I/O | 500 V AC, 50 Hz, 1 min |
| Test voltage: Functional ground | 500 V AC, 50 Hz, 1 min |

Connection data

Connection technology

| | |
|-----------------|------------------|
| Connection name | Inline connector |
|-----------------|------------------|

Inline connector

| | |
|--------------------------------|--|
| Connection method | Spring-cage connection |
| Conductor cross-section, rigid | 0.08 mm ² ... 1.5 mm ² |

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| | |
|-----------------------------------|--|
| Conductor cross-section, flexible | 0.08 mm ² ... 1.5 mm ² |
| Conductor cross-section AWG | 28 ... 16 |
| Stripping length | 8 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|--|---|
| Ambient temperature (operation) | 0 °C ... 55 °C (see "Derating" table in the data sheet) |
| 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) | -25 °C ... 85 °C |
| Permissible humidity (operation) | 10 % ... 95 % (according to DIN EN 61131-2) |
| Permissible humidity (storage/transport) | 10 % ... 95 % (according to DIN EN 61131-2) |

Standards and regulations

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

Mounting

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

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Drawings

Dimensional drawing



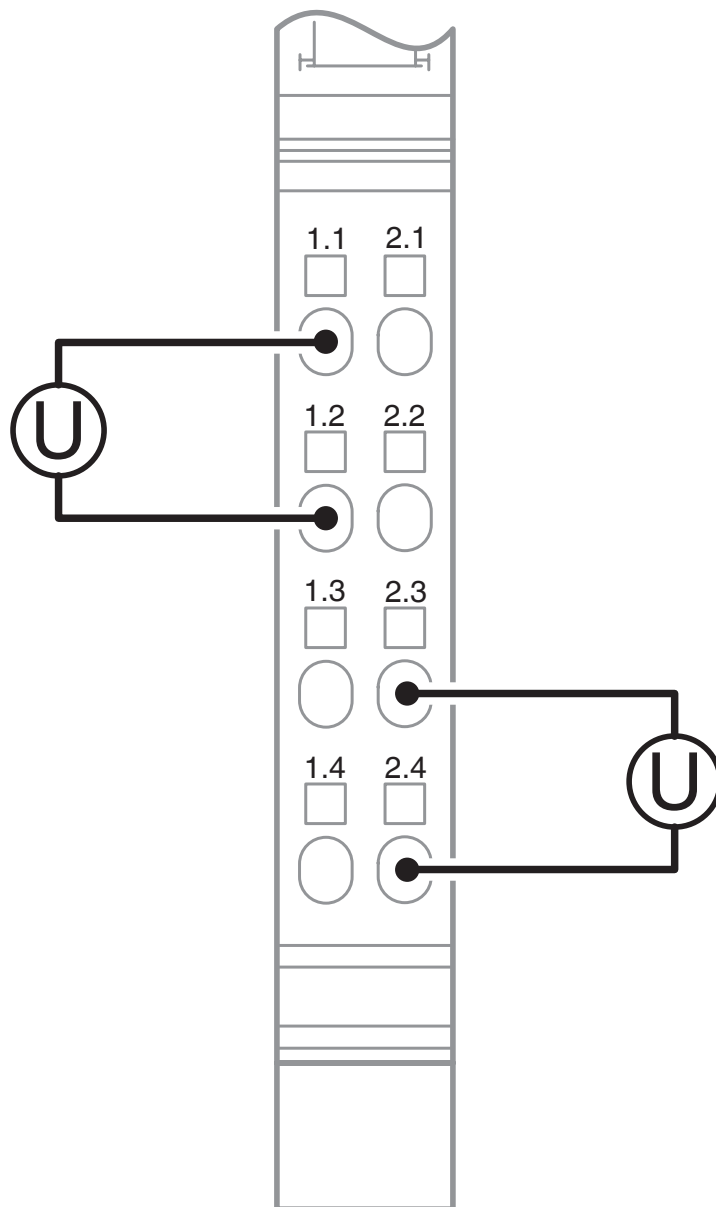
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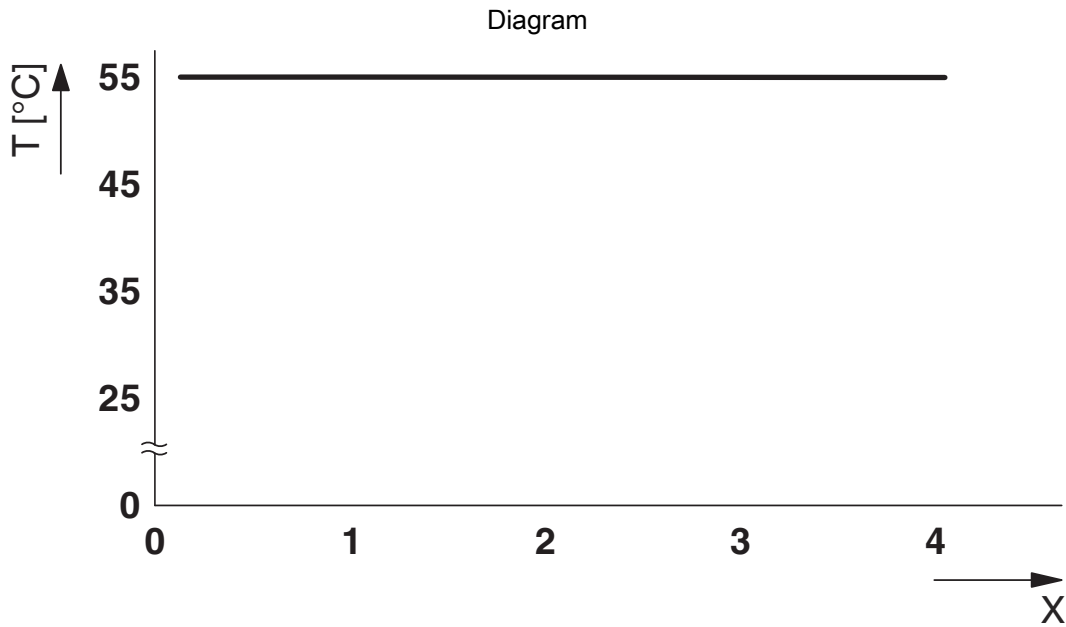
<https://www.phoenixcontact.com/us/products/2702498>



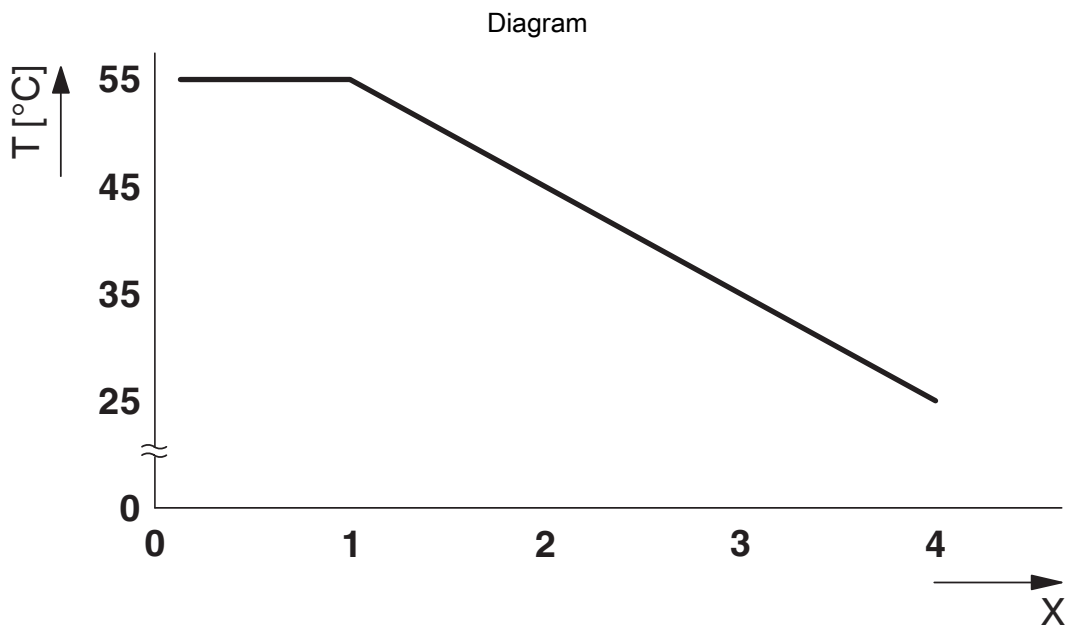
Connection diagram



Actuator connection



Derating with active convection



Derating without active convection

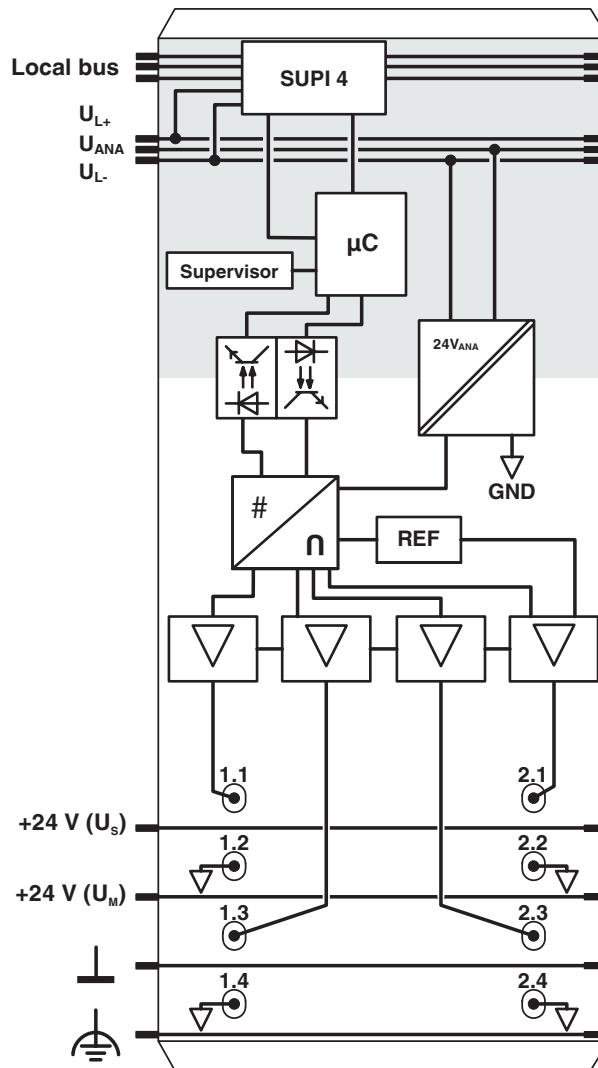
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Block diagram



Internal wiring of the terminal points

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Approvals

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cULus Listed

Approval ID: E238705



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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27242601 |
| ECLASS-15.0 | 27242601 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001596 |
|-----------|----------|

UNSPSC

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

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Environmental product compliance

EU RoHS

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

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 | e4266376-fae2-4063-842d-aaa07682610f |

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