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## Inline terminal - IB IL 24 DO 4/EF-ECO - 2702825

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Inline ECO, Digital output terminal, Digital outputs: 4, 24 V DC, 500 mA, connection method: 3-wire, transmission speed in the local bus: 500 kbps, including Inline connector

### Product Description

The terminal is designed for use within an Inline station. It is used to output digital signals.

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.

### Why buy this product

- 4 digital outputs
- Connection of actuators in 2 and 3-wire technology
- Nominal current per output: 500 mA
- Total current of the terminal: 2 A
- Short-circuit-proof and overload-protected outputs
- Diagnostic and status indicators
- Approved for use in a safety-related segment circuit



### Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 1 STK         |
| GTIN         |               |
| GTIN         | 4055626381473 |

### Technical data

#### Note

|                         |   |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

#### Dimensions

|        |          |
|--------|----------|
| Width  | 12.2 mm  |
| Height | 119.8 mm |

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## Technical data

### Dimensions

|       |         |
|-------|---------|
| Depth | 71.5 mm |
|-------|---------|

### Ambient conditions

|  |   |
|--|---|
| Ambient temperature (operation)          | 0 °C ... 55 °C                                    |
| 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)       |
| 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                           | Inline connector       |
| Connection method                     | Spring-cage connection |
| Conductor cross section solid min.    | 0.08 mm <sup>2</sup>   |
| Conductor cross section solid max.    | 1.5 mm <sup>2</sup>    |
| Conductor cross section flexible min. | 0.08 mm <sup>2</sup>   |
| Conductor cross section flexible max. | 1.5 mm <sup>2</sup>    |
| Conductor cross section AWG min.      | 28                     |
| Conductor cross section AWG max.      | 16                     |
| Stripping length                      | 8 mm                   |

### General

|                               |   |
|-------------------------------|---|
| Mounting type                 | DIN rail  |
| Net weight                    | 83.85 g   |
| Note on weight specifications | with connector  |
| Diagnostics messages          | Short-circuit / overload of the digital outputs Error message in the diagnostic code (bus) and display (2 Hz) via the LED (D) on the module |

### Interfaces

|                    |                    |
|--------------------|--------------------|
| Designation        | Inline local bus   |
| No. of channels    | 2                  |
| Connection method  | Inline data jumper |
| Transmission speed | 500 kbps           |

### Inline potentials

|                      |  |
|----------------------|--|
| Designation          | Communications power (U <sub>L</sub> )                             |
| Supply voltage       | 7.5 V DC (via voltage jumper)                                      |
| Current consumption  | max. 44 mA   |
| Power consumption    | max. 0.33 W  |
| Designation          | Segment circuit supply (U <sub>S</sub> )                           |
| Supply voltage       | 24 V DC (via voltage jumper)                                       |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current consumption  | max. 2 A   |

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### Technical data

#### Inline potentials

|  |     |
|--|-----|
|  | 0 A |
|--|-----|

#### Digital outputs

|                                    |  |
|------------------------------------|--|
| Output name                        | Digital outputs  |
| Connection method                  | Spring-cage connection                                   |
| Connection technology              | 3-wire   |
| Number of outputs                  | 4  |
| Type of protection                 | Overload protection, short-circuit protection of outputs |
| Output voltage                     | 24 V DC ( $U_S - 1$ V)                                   |
| Nominal output voltage             | 24 V DC  |
| Maximum output current per channel | 500 mA   |
| Maximum output current per module  | 2 A  |
| Nominal load, inductive            | 12 VA (1.2 H, 50 $\Omega$ )                              |
| Nominal load, lamp                 | 12 W   |
| Nominal load, ohmic                | 12 W (48 $\Omega$ )                                      |

#### Electrical isolation

|              |   |
|--------------|---|
| Test section | 5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min. |
|              | 5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min. |
|              | 7.5 V supply (bus logics)/24 V supply (I/O) 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

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

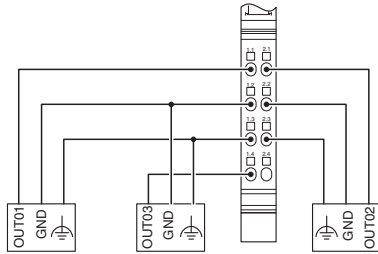
#### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

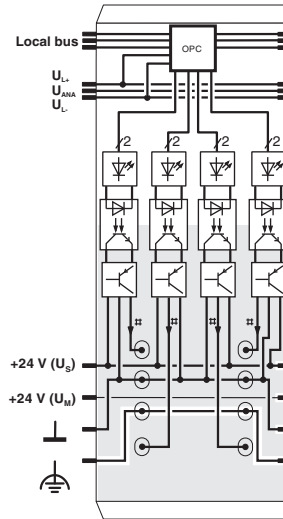
### Drawings

# Inline terminal - IB IL 24 DO 4/EF-ECO - 2702825

Connection diagram

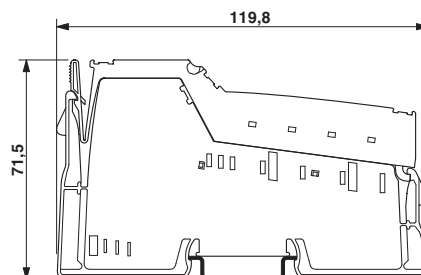


Block diagram



Internal wiring of the terminal points

Dimensional drawing



## Approvals

Approvals

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Approvals

UL Listed / cUL Listed / cULus Listed

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Ex Approvals


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Approval details

## Inline terminal - IB IL 24 DO 4/EF-ECO - 2702825

### Approvals

|           |   |   |               |
|-----------|---|---|---------------|
| 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 140324 |
|-----------|---|---|---------------|

|            |   |   |               |
|------------|---|---|---------------|
| 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 140324 |
|------------|---|---|---------------|

|              |   |  |  |
|--------------|---|--|--|
| cULus Listed |  |  |  |
|--------------|---|--|--|

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