

## Inline terminal - IB IL 24 DI 16-PAC - 2861250

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Inline, Digital input terminal, Digital inputs: 16, 24 V DC, connection method: 3-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

### Product Description

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

### Your advantages

- ✓ 16 digital inputs
- ✓ Connection of sensors in 2 and 3-wire technology
- ✓ Maximum permissible load current per sensor: 250 mA
- ✓ Maximum permissible load current from the terminal: 4 A



### Key Commercial Data

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                 |
| GTIN         |  |
| GTIN         | 4017918894191                                                                        |

### Technical data

#### Note

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|                         | Use in potentially explosive areas is not permitted in China.             |

#### Dimensions

|                    |                    |
|--------------------|--------------------|
| Width              | 48.8 mm            |
| Height             | 140.5 mm           |
| Depth              | 71.5 mm            |
| Note on dimensions | Housing dimensions |

#### Ambient conditions

# Inline terminal - IB IL 24 DI 16-PAC - 2861250

## Technical data

### Ambient conditions

|                                          |                                                                   |
|------------------------------------------|-------------------------------------------------------------------|
| Ambient temperature (operation)          | -25 °C ... 55 °C                                                  |
| Ambient temperature (storage/transport)  | -25 °C ... 85 °C                                                  |
| Permissible humidity (operation)         | 10 % ... 95 % (non-condensing)                                    |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing)                                    |
| Air pressure (operation)                 | 70 kPa ... 106 kPa (up to 3000 m above sea level)                 |
|                                          | 80 kPa ... 106 kPa (up to 3000 m above sea level, in ATEX Zone 2) |
| Air pressure (storage/transport)         | 70 kPa ... 106 kPa (up to 3000 m above sea level)                 |
| Degree of protection                     | IP20                                                              |

### General

|                               |                                 |
|-------------------------------|---------------------------------|
| Mounting type                 | DIN rail                        |
| Color                         | green                           |
| Net weight                    | 210 g                           |
| Note on weight specifications | with connectors                 |
| Operating mode                | Process data mode with one word |

### Interfaces

|                    |                    |
|--------------------|--------------------|
| Designation        | Inline local bus   |
| Number             | 2                  |
| Connection method  | Inline data jumper |
| Transmission speed | 500 kbps           |

### Inline potentials

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Designation          | Communications power ( $U_L$ )                                     |
| Supply voltage       | 7.5 V DC (via voltage jumper)                                      |
| Current consumption  | max. 60 mA                                                         |
| Power consumption    | max. 0.45 W                                                        |
| Designation          | Segment circuit supply ( $U_S$ )                                   |
| 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. 4 A                                                           |
|                      | 0 A                                                                |

### Digital inputs

|                                   |                                |
|-----------------------------------|--------------------------------|
| Input name                        | Digital inputs                 |
| Description of the input          | EN 61131-2 type 1              |
| Connection method                 | Spring-cage connection         |
| Connection technology             | 3-wire                         |
| Number of inputs                  | 16                             |
| Typical response time             | < 1 ms                         |
| Nominal input voltage $U_{IN}$    | 24 V DC                        |
| Nominal input current at $U_{IN}$ | min. 3 mA (at nominal voltage) |
| Input voltage                     | 24 V DC                        |

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### Technical data

#### Digital inputs

|                                    |                     |
|------------------------------------|---------------------|
| Input voltage range "0" signal     | -3 V DC ... 5 V DC  |
| Input voltage range "1" signal     | 15 V DC ... 30 V DC |
| Delay at signal change from 0 to 1 | 1 ms                |
| Delay at signal change from 1 to 0 | 1 ms                |

#### Electrical isolation

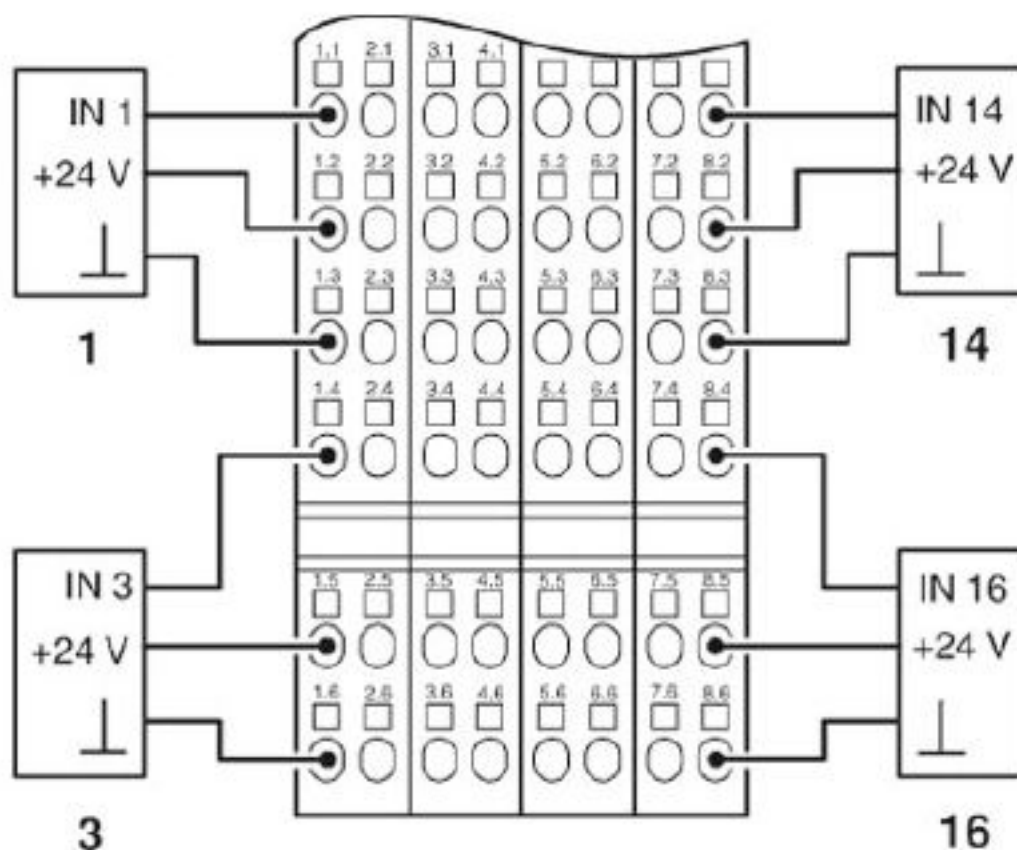
|              |                                                                   |
|--------------|-------------------------------------------------------------------|
| Test section | 7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min. |
|              | 24 V supply (I/O)/functional ground 500 V AC 50 Hz 1 min.         |
|              | 7.5 V supply (bus logic)/functional ground 500 V AC 50 Hz 1 min.  |

#### Standards and Regulations

|                                  |                                       |
|----------------------------------|---------------------------------------|
| Connection in acc. with standard | CUL                                   |
| Protection class                 | III (IEC 61140, EN 61140, VDE 0140-1) |

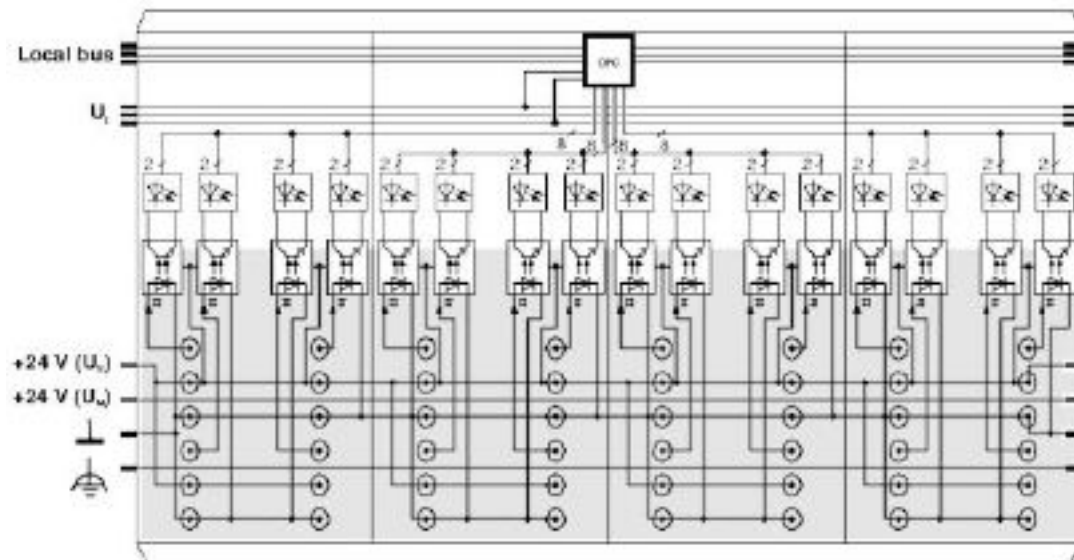
### Drawings

Connection diagram

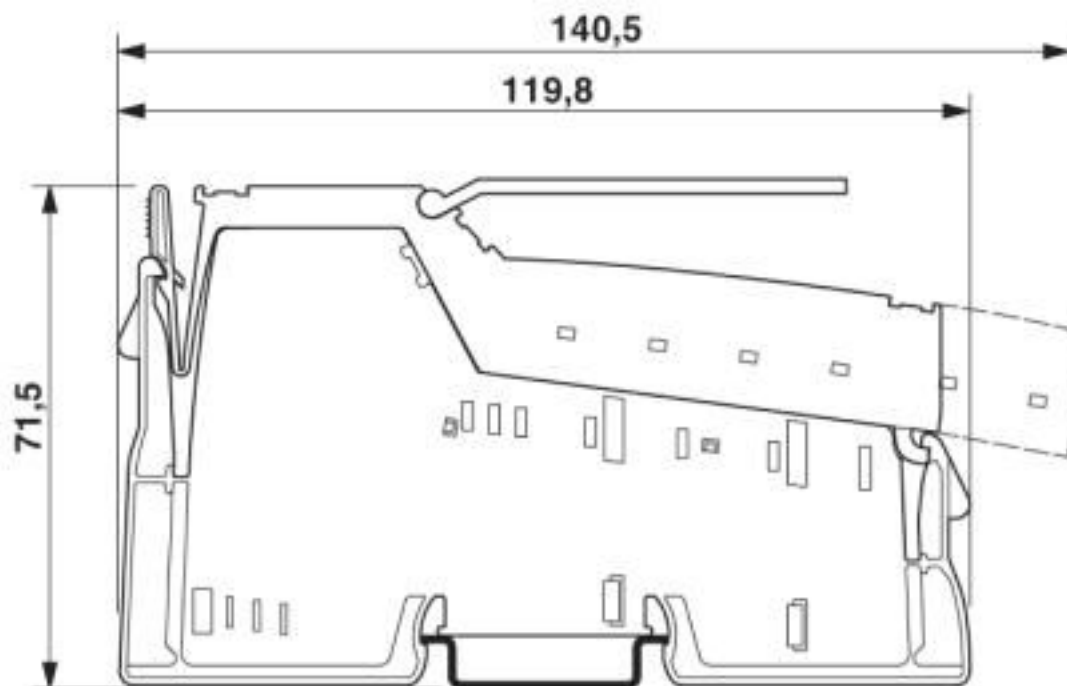


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Block diagram



Dimensional drawing



### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27242604 |
| eCl@ss 11.0   | 27242604 |
| eCl@ss 4.0    | 27250300 |

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.1 | 27250300 |
| eCl@ss 5.0 | 27250300 |
| 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 2.0 | EC001430 |
| 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     | 43172015 |
| UNSPSC 12.01  | 43201404 |
| UNSPSC 13.2   | 32151602 |
| UNSPSC 18.0   | 32151602 |
| UNSPSC 19.0   | 32151602 |
| UNSPSC 20.0   | 32151602 |
| UNSPSC 21.0   | 32151602 |

### Approvals

#### Approvals

##### Approvals

LR / BSH / BV / LR / ABS / BSH / RINA / UL Recognized / EAC / DNV GL

##### Ex Approvals

UL Listed / cUL Listed / ATEX / cULus Listed

#### Approval details

## Inline terminal - IB IL 24 DI 16-PAC - 2861250

### Approvals

|               |                                                                                     |                                                                                                                                                                                                                               |                  |
|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| LR            |    | <a href="http://www.lr.org/en">http://www.lr.org/en</a>                                                                                                                                                                       | 08/20033         |
| BSH           |                                                                                     |                                                                                                                                                                                                                               | Anwenderhinweis  |
| BV            |    | <a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a> | 20989/B2_BV      |
| LR            |    | <a href="http://www.lr.org/en">http://www.lr.org/en</a>                                                                                                                                                                       | 08/20033         |
| ABS           |                                                                                     | <a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>                                                                                                                       | 17-HG1621871-PDA |
| BSH           |                                                                                     |                                                                                                                                                                                                                               | 658              |
| RINA          |  | <a href="http://www.rina.org/en">http://www.rina.org/en</a>                                                                                                                                                                   | ELE001320XG      |
| UL Recognized |  | <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    |
| EAC           |  |                                                                                                                                                                                                                               | EAC-Zulassung    |
| DNV GL        |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>                                                                                                                                             | TAA00000BN       |

### Accessories

Accessories

Front adapter

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### Accessories

Front adapters - FLKM 14-PA-INLINE/IN16 - 2302751



VARIOFACE front adapter for Inline modules, for transferring 16 (2 x 8) digital input signals.

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### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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### Plug

Inline connector - IB IL SCN-12-ICP - 2727611



Connector, color coded, for digital 4, or 16-channel Inline input terminals

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### Terminal marking

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

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### Accessories

Insert strip - ESL 62X46 - 0809502



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120

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