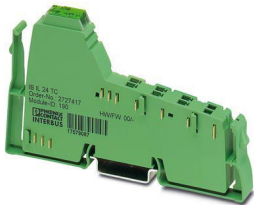


# IB IL 24 TC - Inline function terminal

2727417

<https://www.phoenixcontact.com/us/products/2727417>

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Inline thermistor terminal, without accessories, 2-conductor connection technology

## Product description

The terminal is designed for use within an Inline station. It is used to evaluate PTC thermistors according to DIN 44081 and DIN 44082. This terminal can be used to implement full motor protection.

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2727417                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | NULL                           |
| Product key                          | DRI143                         |
| GTIN                                 | 4017918185558                  |
| Weight per piece (including packing) | 65.3 g                         |
| Weight per piece (excluding packing) | 65.3 g                         |
| Customs tariff number                | 85389091                       |
| Country of origin                    | DE                             |

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## Technical data

### Product properties

|      |         |
|------|---------|
| Type | modular |
|------|---------|

### System properties

#### Programming data

|                         |        |
|-------------------------|--------|
| Length code (hex)       | 41     |
| ID code (dec.)          | 190    |
| Length code (dec)       | 65     |
| Process data channel    | 4 bit  |
| Input address area      | 4 bit  |
| Output address area     | 0 Byte |
| Parameter channel (PCP) | 0 Byte |
| Register length (bus)   | 4 bit  |

#### Fieldbus data telegram

|                         |        |
|-------------------------|--------|
| Required parameter data | 1 Byte |
|-------------------------|--------|

### Electrical properties

#### Potentials

|                   |  |
|-------------------|--|
| Power consumption | max. 12 W (For R = 12 Ω, L = 1.2 H/48 Ω) |
|-------------------|--|

#### Potentials: Communications power (U<sub>L</sub>)

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

#### Potentials: 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 draw         | max. 500 mA  |

#### Electrical isolation/isolation of the voltage ranges

|   |                         |
|---|-------------------------|
| Test voltage: 5 V supply, incoming remote bus/7.5 V supply (bus logics) | 500 V AC, 50 Hz, 1 min  |
| Test voltage: 5 V supply, outgoing remote bus/7.5 V supply (bus logics) | 500 V AC, 50 Hz, 1 min  |
| Test voltage: 7.5 V supply (bus logics)/24 V analog supply (analog I/O) | 500 V AC, 50 Hz, 1 min  |
| Test voltage: 24 V analog supply (analog I/O)/functional ground         | 500 V AC, 50 Hz, 1 min  |
| Test voltage: Thermistor / all other areas                              | 1200 V AC, 50 Hz, 1 min |

### Input data

#### Analog:

|            |                   |
|------------|-------------------|
| Input name | Resistance sensor |
|------------|-------------------|

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|                                      |   |
|--------------------------------------|---|
| Description of the input             | Input for PTC thermistor  |
| Number of inputs                     | 1   |
| Connection method                    | Spring-cage connection  |
| Connection technology                | 2-conductor   |
| Sensor types (RTD) that can be used  | PTC thermistor according to DIN 44081 or DIN 44082  |
| Input filter time                    | typ. 10 ms  |
| Nominal value of the current sources | max. 1.2 mA (for open-circuit voltage of < 8 V DC)  |
| Linear resistance measuring range    | 2.7 k $\Omega$ ... 3.5 k $\Omega$ (Shutdown range, total resistance)<br>50 $\Omega$ ... 2.25 k $\Omega$ (Operating range, total resistance) |

## Output data

Analog:

|                                 |  |
|---------------------------------|--|
| Connection method               | Spring-cage connection                                     |
| Connection technology           | 2-conductor  |
| Number of outputs               | 1  |
| Protective circuit              | short-circuit and overload proof                           |
| Current output signal           | 500 mA (per output)  |
| Voltage output signal           | 24 V DC ( $U_S - 1$ V)                                     |
| Load/output load voltage output | < 2.7 k $\Omega$ (Total resistance for output signal HIGH) |

## Connection data

Inline connector

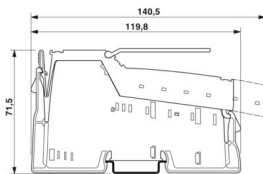
|                                   |   |
|-----------------------------------|---|
| Connection method                 | Spring-cage connection                      |
| Conductor cross-section, rigid    | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross-section, flexible | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross-section AWG       | 24 ... 16                                   |

## Interfaces

Inline local bus

|                      |                    |
|----------------------|--------------------|
| Connection method    | Inline data jumper |
| Transmission speed   | 500 kbps           |
| Transmission physics | Copper             |

## Dimensions

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

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

## Material specifications

|       |       |
|-------|-------|
| Color | green |
|-------|-------|

## Environmental and real-life conditions

### Ambient conditions

|  |   |
|--|---|
| Ambient temperature (operation)          | -25 °C ... 55 °C                                  |
| Degree of protection                     | IP20  |
| Air pressure (operation)                 | 80 kPa ... 106 kPa (up to 2000 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)         | -25 % ... 55 % (75% average, 85% seldom)          |
| Permissible humidity (storage/transport) | -25 % ... 85 %                                    |

## 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

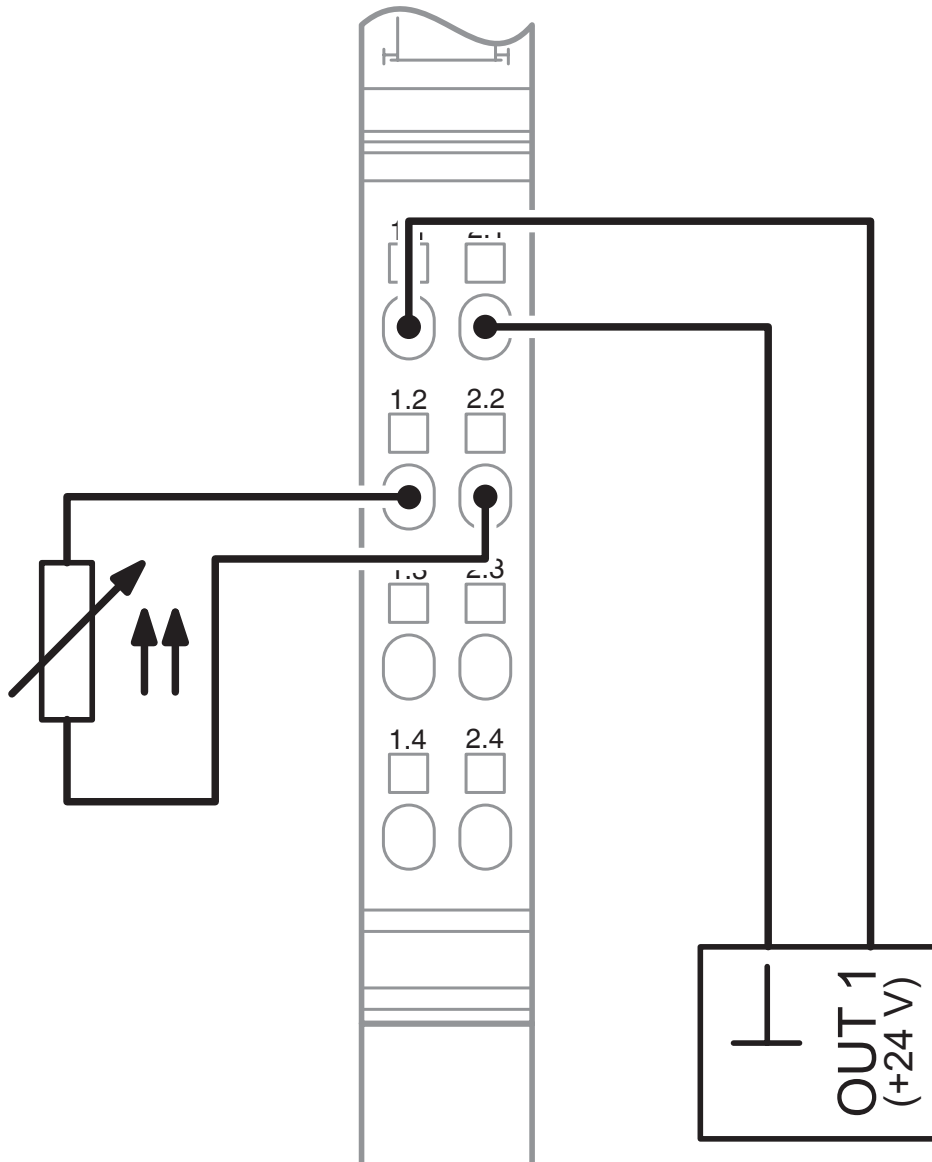


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Connection diagram



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## Environmental product compliance

EU REACH SVHC

| REACH candidate substance (CAS No.) |  |
|-------------------------------------|--|
|-------------------------------------|--|

|  |                            |
|--|----------------------------|
|  | No substance above 0.1 wt% |
|--|----------------------------|

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