

# FTMC 1,5-3 /YE - Marshalling patchboard



3270447

<https://www.phoenixcontact.com/sg/products/3270447>

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Marshalling patchboard, without actuating push button, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, mounting: for snapping onto a DIN rail adapter, for snapping onto a cover flange, color: gray, color of connection elements: yellow

## Your advantages

- Tool-free wiring in a confined space thanks to compact size
- Color configuration possible according to VDE 0812, VDE 0815, DIN 47100 or unlimited.
- Individual color assignment of cable and terminal point to ensure error-free, safe operation
- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- Suitable for DIN rail mounting and panel cutouts with corresponding accessories
- Individual setup thanks to modular principle

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 3270447                        |
| Packing unit                         | 10 pc                          |
| Minimum order quantity               | 10 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | *****                          |
| Product key                          | BE6212                         |
| Catalog page                         | Page 57 (C-1-2019)             |
| GTIN                                 | 4055626114255                  |
| Weight per piece (including packing) | 4.15 g                         |
| Weight per piece (excluding packing) | 4.15 g                         |
| Customs tariff number                | 85369010                       |
| Country of origin                    | PL                             |

## Technical data

### Product properties

|                       |                      |
|-----------------------|----------------------|
| Product type          | Marshalling terminal |
| Number of positions   | 1                    |
| Number of connections | 6                    |
| Number of rows        | 1                    |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|   |        |
|---|--------|
| Rated surge voltage                             | 6 kV   |
| Maximum power dissipation for nominal condition | 0.56 W |

### Connection data

|   |  |
|---|--|
| Number of connections per level                                   | 6  |
| Nominal cross section   | 1.5 mm <sup>2</sup>  |
| Rated cross section AWG   | 14   |
| Stripping length  | 8 mm ... 10 mm   |
| Internal cylindrical gage   | A1   |
| Connection in acc. with standard                                  | IEC 60947-7-1  |
| Conductor cross section rigid                                     | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>   |
| Cross section AWG   | 26 ... 14 (converted acc. to IEC)  |
| Conductor cross section flexible                                  | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>   |
| Conductor cross section, flexible [AWG]                           | 26 ... 14 (converted acc. to IEC)  |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>   |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>   |
| Nominal current   | 17.5 A   |
| Maximum load current  | 24 A (in case of a 2.5 mm <sup>2</sup> conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.) |
| Nominal voltage   | 500 V  |

### Connection cross sections directly pluggable

|   |  |
|---|--|
| Conductor cross section rigid                                     | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section, rigid [AWG]                              | 20 ... 14 (converted acc. to IEC)            |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.34 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |

### Dimensions

|        |       |
|--------|-------|
| Width  | 11 mm |
| Height | 30 mm |

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## Material specifications

|   |                 |
|---|-----------------|
| Color   | gray (RAL 7042) |
| Color of connection elements  | yellow          |
| Flammability rating according to UL 94                                  | V0              |
| Insulating material group   | I               |
| Insulating material   | PA              |
| Static insulating material application in cold                          | -60 °C          |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 125 °C          |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C          |
| Fire protection for rail vehicles (DIN EN 45545-2) R22                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R23                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R24                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R26                  | HL 1 - HL 3     |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 27,5 MJ/kg      |
| Surface flammability NFPA 130 (ASTM E 162)                              | passed          |
| Specific optical density of smoke NFPA 130 (ASTM E 662)                 | passed          |
| Smoke gas toxicity NFPA 130 (SMP 800C)                                  | passed          |

## Electrical tests

### Surge voltage test

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 7.3 kV      |
| Result                | Test passed |

### Temperature-rise test

|  |                                     |
|--|-------------------------------------|
| Requirement temperature-rise test                | Increase in temperature $\leq 45$ K |
| Result   | Test passed                         |
| Short-time withstand current 1.5 mm <sup>2</sup> | 0.18 kA                             |
| Short-time withstand current 2.5 mm <sup>2</sup> | 0.3 kA                              |
| Result   | Test passed                         |

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 1.89 kV     |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Mechanical tests

### Mechanical strength

|        |             |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

### Attachment on the carrier

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|                         |             |
|-------------------------|-------------|
| DIN rail/fixing support | NS 35       |
| Test force setpoint     | 1 N         |
| Result                  | Test passed |

## Test for conductor damage and slackening

|                                |                               |
|--------------------------------|-------------------------------|
| Rotation speed                 | 10 rpm                        |
| Revolutions                    | 135                           |
| Conductor cross section/weight | 0.14 mm <sup>2</sup> / 0.2 kg |
|                                | 1.5 mm <sup>2</sup> / 0.4 kg  |
|                                | 2.5 mm <sup>2</sup> / 0.7 kg  |
| Result                         | Test passed                   |

## Environmental and real-life conditions

### Aging

|                    |             |
|--------------------|-------------|
| Temperature cycles | 192         |
| Result             | Test passed |

### Needle-flame test

|                  |             |
|------------------|-------------|
| Time of exposure | 30 s        |
| Result           | Test passed |

### Oscillation/broadband noise

|                        |  |
|------------------------|--|
| Specification          | DIN EN 50155 (VDE 0115-200):2008-03              |
| Spectrum               | Long life test category 1, class B, body mounted |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$   |
| ASD level              | 0.964 (m/s <sup>2</sup> ) <sup>2</sup> /Hz       |
| Acceleration           | 0.58g  |
| Test duration per axis | 5 h  |
| Test directions        | X-, Y- and Z-axis                                |
| Result                 | Test passed                                      |

### Shocks

|                                |                                     |
|--------------------------------|-------------------------------------|
| Specification                  | DIN EN 50155 (VDE 0115-200):2008-03 |
| Pulse shape                    | Half-sine                           |
| Acceleration                   | 5g                                  |
| Shock duration                 | 30 ms                               |
| Number of shocks per direction | 3                                   |
| Test directions                | X-, Y- and Z-axis (pos. and neg.)   |
| Result                         | Test passed                         |

### Ambient conditions

|   |   |
|---|---|
| Ambient temperature (operation)         | -60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)       |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly)          | -5 °C ... 70 °C   |

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|  |                 |
|--|-----------------|
| Ambient temperature (actuation)          | -5 °C ... 70 °C |
| Permissible humidity (storage/transport) | 30 % ... 70 %   |

## Standards and regulations

|                                  |               |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60947-7-1 |
|----------------------------------|---------------|

## Mounting

|               |                                      |
|---------------|--------------------------------------|
| Mounting type | for snapping onto a DIN rail adapter |
|               | for snapping onto a cover flange     |

## Drawings

### Circuit diagram



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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC000897 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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