

## Active module - UM 45-16RM/MR-G24/1/E/PLC - 2962926

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VARIOFACE COMPACT LINE, output extension module with 16 miniature relays, 1 N/O contact each, plugged, for 24 V DC (incl. relay)

### Your advantages

- ✓ Low depth of just 45 mm
- ✓ Universal applications from 1 mA to 3 A continuous current thanks to 2-layer double contact with hard gold plating
- ✓ Freewheeling and polarity protection diode per signal path
- ✓ LED status indicator per signal path and supply voltage
- ✓ Plug-in miniature relays each with an N/O contact



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 017918 087524 |
| GTIN                                 | 4017918087524   |
| Weight per Piece (excluding packing) | 218.180 g   |
| Custom tariff number                 | 85364190  |
| Country of origin                    | Germany   |
| Note                                 | Made to Order (non-returnable)  |

### Technical data

#### Note

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

#### Dimensions

|        |         |
|--------|---------|
| Width  | 199 mm  |
| Height | 45 mm   |
| Depth  | 48.5 mm |

#### Ambient conditions

# Active module - UM 45-16RM/MR-G24/1/E/PLC - 2962926

## Technical data

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -20 °C ... 50 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
| Degree of protection                    | IP00             |

### Input data

|   |                             |
|---|-----------------------------|
| Nominal input voltage $U_N$               | 24 V DC                     |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.1                 |
| Typical input current at $U_N$            | 6.5 mA                      |
| Typical response time                     | 5 ms                        |
| Typical release time                      | 15 ms                       |
| Type of protection                        | Free-wheeling diode         |
| Protective circuit/component              | Damping diode               |
| Type of protection                        | Reverse polarity protection |
| Protective circuit/component              | Polarity protection diode   |
| Operating voltage display                 | Green LED                   |
| Status display/channel                    | Yellow LED                  |

### Output data

|                                       |                             |
|---------------------------------------|-----------------------------|
| Contact type                          | 1 N/O contact               |
| Contact material                      | AgNi, 5 µm hard gold-plated |
| Maximum switching voltage             | 250 V AC                    |
|                                       | 125 V DC                    |
| Minimum switching voltage             | 5 V                         |
| Limiting continuous current           | 3 A                         |
| Maximum inrush current                | 5 A                         |
| Min. switching current                | 1 mA                        |
| Interrupting rating (ohmic load) max. | 72 W (24 V DC)              |
|                                       | 60 W (48 V DC)              |
|                                       | 50 W (60 V DC)              |
|                                       | 50 W (110 V DC)             |
|                                       | 750 VA (250 V AC)           |
| Status display                        | Yes                         |

### General

|                         |                                |
|-------------------------|--------------------------------|
| No. of channels         | 16                             |
| Compatible components   | Miniature relay, REL-MR-G 24/1 |
| With components         | yes                            |
| Mechanical service life | $2 \times 10^7$ cycles         |
| Operating mode          | 100% operating factor          |
| Mounting position       | any                            |
| Assembly instructions   | In rows with zero spacing      |
| Color                   | green                          |

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### Technical data

#### Connection data

|                       |                   |
|-----------------------|-------------------|
| Connection name       | Controller level  |
| Connection method     | IDC/FLK pin strip |
| Number of connections | 1                 |
| Number of positions   | 20                |
| Pitch                 | 2.54 mm           |

#### Connection data 2

|                                  |  |
|----------------------------------|--|
| Connection name                  | Field level                                  |
| Connection method                | Screw connection                             |
| Stripping length                 | 6 mm   |
| Screw thread                     | M3   |
| Number of connections            | 32   |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 14                                    |

#### Connection data 3

|                                  |  |
|----------------------------------|--|
| Connection name                  | Supply                                       |
| Connection method                | Screw connection                             |
| Stripping length                 | 6 mm   |
| Screw thread                     | M3   |
| Number of connections            | 2  |
| Number of positions              | 2  |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 14                                    |

#### Supported controller

|                     |                             |
|---------------------|-----------------------------|
| Controller          | ALLEN-BRADLEY ControlLogix  |
| - suitable I/O card | 1756-OB32                   |
| Controller          | ALLEN-BRADLEY PLC 5         |
| - suitable I/O card | 1771 OBN                    |
| Controller          | GE-FANUC RX3i               |
| - suitable I/O card | IC694MDL754                 |
| Controller          | HONEYWELL Experion PKS C200 |
| - suitable I/O card | TC-ODD 321                  |
| Controller          | MITSUBISHI MELSEC L         |
| - suitable I/O card | LY41PT1P                    |
|                     | LY42PT1P                    |
| Controller          | MITSUBISHI MELSEC Q         |
| - suitable I/O card | QY82P                       |

#### Standards and Regulations

# Active module - UM 45-16RM/MR-G24/1/E/PLC - 2962926

## Technical data

### Standards and Regulations

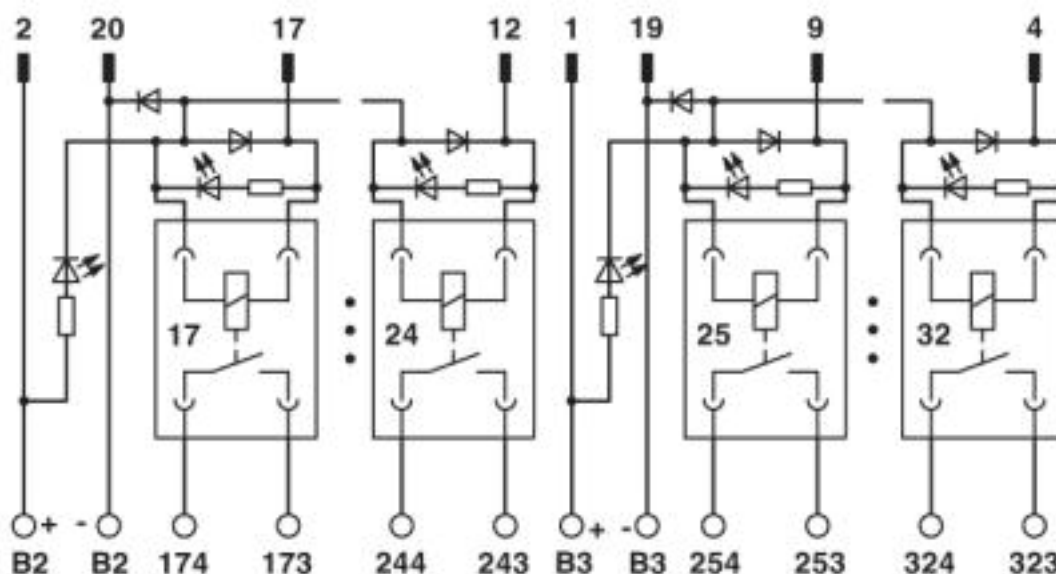
|                          |                         |
|--------------------------|-------------------------|
| Standards/regulations    | DIN EN 50178            |
|                          | IEC 60664               |
| Rated insulation voltage | 260 V AC                |
| Rated surge voltage      | 4 kV (basic insulation) |
| Pollution degree         | 2                       |
| Overvoltage category     | III                     |

### Environmental Product Compliance

|            |   |
|------------|---|
| REACH SVHC | Lead 7439-92-1  |
| China RoHS | Environmentally Friendly Use Period = 50  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

Circuit diagram



## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371600 |
| eCl@ss 5.1 | 27371600 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27141152 |
| eCl@ss 8.0 | 27141152 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 9.0 | 27141152 |
|------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002780 |
| ETIM 6.0 | EC002780 |
| ETIM 7.0 | EC002780 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39122334 |
| UNSPSC 18.0   | 39121432 |
| UNSPSC 19.0   | 39121432 |
| UNSPSC 20.0   | 39121432 |
| UNSPSC 21.0   | 39121432 |

## Approvals

### Approvals

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Approvals

EAC

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Ex Approvals

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### Approval details

|     |  |                          |
|-----|--|--------------------------|
| EAC |  | RU C-<br>DE.A*30.B.01742 |
|-----|--|--------------------------|

## Accessories

Accessories

Single relay

## Active module - UM 45-16RM/MR-G24/1/E/PLC - 2962926

### Accessories

Single relay - REL-MR-G 24/1 - 2961037



Pluggable replacement miniature relay, 1 N/O contact, input voltage 24 V DC

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### Necessary add-on products

Active module - UM 45-16RM/MR-G24/1/PLC - 2962913



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