

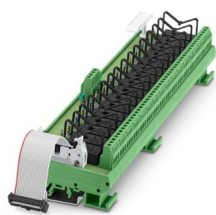
# UMK-16 RELS/KSR-G24/21/E/PLC - Active module



2974891

<https://www.phoenixcontact.com/us/products/2974891>

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VARIOFACE output extension module, with plug-in bases for 16 miniature relays, 1 changeover contact each, for 24 V DC (without relays)

## Your advantages

- LED status indicator per signal path and supply voltage
- Freewheeling and polarity protection diode for each signal path
- Plug-in miniature relays, each with a changeover contact

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2974891                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C421                           |
| Product key                          | DK2191                         |
| GTIN                                 | 4017918088996                  |
| Weight per piece (including packing) | 449.6 g                        |
| Weight per piece (excluding packing) | 4.4 g                          |
| Customs tariff number                | 85364190                       |
| Country of origin                    | DE                             |

## Technical data

### Product properties

|                         |                                    |
|-------------------------|------------------------------------|
| Product type            | Interface module                   |
| No. of channels         | 16                                 |
| Operating mode          | 100% operating factor              |
| Mechanical service life | 3x 10 <sup>7</sup> cycles          |
| Compatible components   | Miniature relay, REL-MR- 24DC/21HC |
| With components         | no                                 |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 2   |

### Electrical properties

|                          |  |
|--------------------------|--|
| Rated insulation voltage | 300 V AC   |
| Rated surge voltage      | 4 kV (Basic insulation between output contact current paths)<br>6 kV (Safe isolation and reinforced insulation between input circuit and output contact paths) |

### Supported controller GE-FANUC RX3i

|                   |             |
|-------------------|-------------|
| Suitable I/O card | IC694MDL754 |
|-------------------|-------------|

### Supported controller HONEYWELL Experion PKS C200

|                   |            |
|-------------------|------------|
| Suitable I/O card | TC-ODD 321 |
|-------------------|------------|

### 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 $U_N$            | 2 mA (LED display)                     |
| Protective circuit                        | Freewheeling diode; Freewheeling diode |
| Operating voltage display                 | Green LED                              |
| Status display/channel                    | Yellow LED                             |

### Output data

|                       |                                    |
|-----------------------|------------------------------------|
| Compatible components | Miniature relay, REL-MR- 24DC/21HC |
|-----------------------|------------------------------------|

### Switching

|  |                      |
|--|----------------------|
| Contact switching type                       | 1 changeover contact |
| Maximum switching voltage                    | 250 V AC/DC          |
| Limiting continuous current                  | 5 A                  |
| Status display                               | yes                  |
| Error detection (line break / short-circuit) | no                   |

### Connection data

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## Controller level

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

## Field level

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Number of connections            | 24  |
| Conductor cross-section rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section AWG      | 24 ... 12                                   |

## Supply

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Number of connections            | 4   |
| Conductor cross-section rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section AWG      | 24 ... 12                                   |

## Signaling

|                        |     |
|------------------------|-----|
| Status display present | yes |
|------------------------|-----|

## Dimensions

|        |        |
|--------|--------|
| Width  | 259 mm |
| Height | 77 mm  |
| Depth  | 59 mm  |

## Material specifications

|       |                  |
|-------|------------------|
| Color | green (RAL 6021) |
|-------|------------------|

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                       |                |
|-----------------------|----------------|
| Standards/regulations | EN 61010-2-201 |
|                       | IEC 60664      |

## Mounting

|                   |                           |
|-------------------|---------------------------|
| Mounting type     | DIN rail mounting         |
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |

## Notes

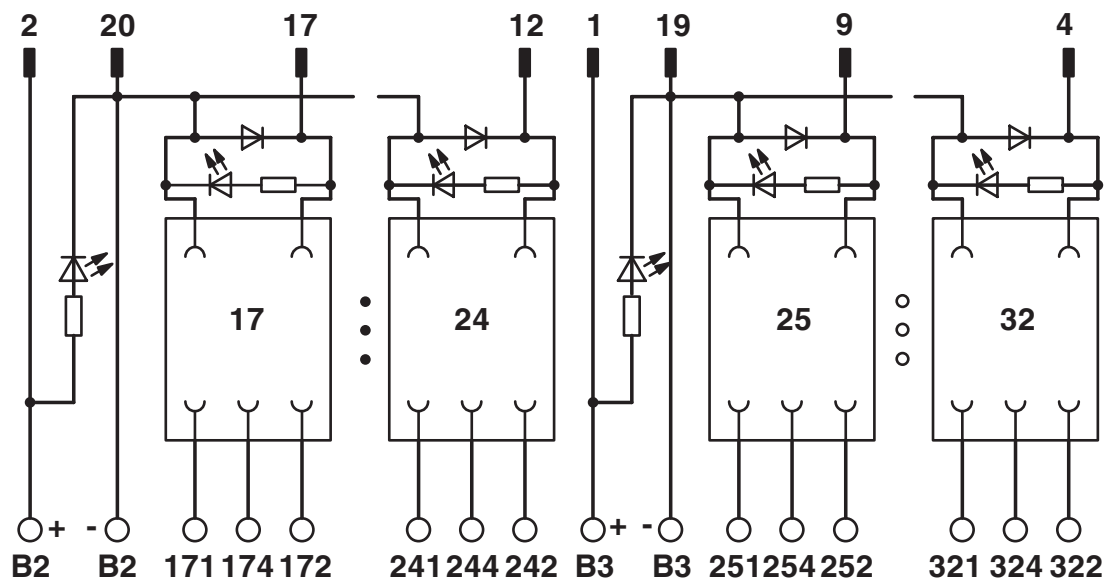
|                    |  |
|--------------------|--|
| Notes on operation | Observe the maximum switching power of the relays used   |
| Notes on operation | Do not connect adjacent channels to SELV/ PELV and voltages dangerous to the touch.  |
| Notes on operation | The outputs are not suitable for switching different line conductors. The sum of the switching voltages used for adjacent outputs must not exceed the rated insulation voltage value   |
| Notes on operation | The necessary requirements for insulation (basic insulation or reinforced insulation) from adjacent modules (in DIN-rail direction) must be realized by applying suitable measures (e. g., partition plates).  |
| Notes on operation | For proper use, the specifications of the installation directive (see Downloads) must be observed. For applications or use with third-party products, the specifications, and the safety and warning instructions of the respective third-party manufacturer must also be met. |

## Utilization restriction

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

## Drawings

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2974891>



**EAC**

Approval ID: RU\*DE\*08.B.01841/19



**UL Listed**

Approval ID: E238705



**cUL Listed**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27141152 |
| ECLASS-15.0 | 27141152 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002780 |
|----------|----------|

### UNSPSC

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

## Environmental product compliance

### EU RoHS

|   |      |
|---|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 7(a) |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50   |
|  | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |   |
|-------------------------------------|---|
| REACH candidate substance (CAS No.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
|                                     | Lead(CAS: 7439-92-1)                        |
| SCIP                                | 9c4cd6b7-d564-4f88-ad04-01a50f81a9c7        |

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