

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



2974891

<https://www.phoenixcontact.com/pc/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) |
| Product Key | CK2171 |
| Catalog Page | Page 539 (C-5-2017) |
| 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

Notes

| | |
|--------------------|---|
| Notes on operation | Observe the maximum switching capacity 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). |

Utilization restriction

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

Product properties

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

Insulation characteristics

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

Electrical properties

| | |
|--------------------------|--|
| No. of channels | 16 |
| Rated insulation voltage | 300 V AC |
| Rated surge voltage | 4 kV (Basic insulation between output contact current paths) |
| | 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 (Light indicator) |
| Protective circuit | Freewheeling diode; Freewheeling diode |

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| | |
|---------------------------|------------|
| Operating voltage display | Green LED |
| Status display/channel | Yellow LED |

Output data

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

Switching

| | |
|--|----------------------|
| Contact 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

Coil side

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

Contact side

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

LED signaling

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

Dimensions

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

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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

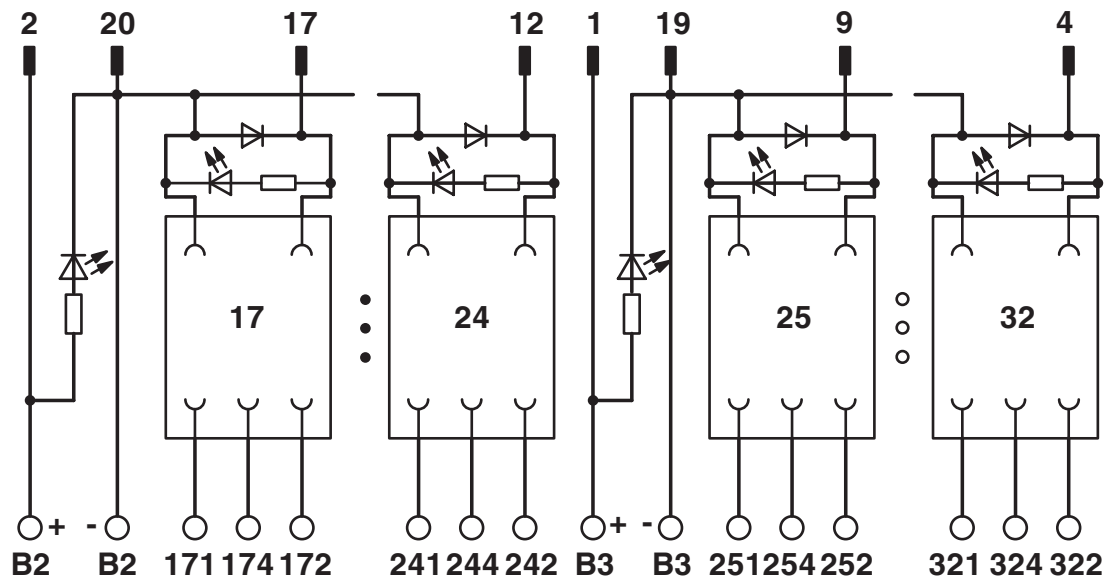
| | |
|-----------------------|---------------------------|
| Mounting type | DIN rail mounting |
| Assembly instructions | in rows with zero spacing |
| Mounting position | any |

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Drawings

Circuit diagram



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Approvals



EAC

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



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705

cULus Listed

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27141152 |
| ECLASS-10.0.1 | 27141152 |
| ECLASS-11.0 | 27141152 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002780 |
|----------|----------|

UNSPSC

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

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Environmental Product Compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| | Hexahydromethylphthalic anhydride |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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Mandatory Accessories

Active module

Active module - UMK-16 RELS/KSR-G24/21/PLC - 2974901

<https://www.phoenixcontact.com/pc/products/2974901>



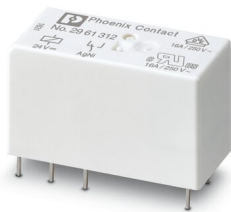
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Accessories

Single relay

Single relay - REL-MR- 24DC/21HC - 2961312

<https://www.phoenixcontact.com/pc/products/2961312>



Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, input voltage 24 V DC

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Retaining bracket

Retaining bracket - SIM-ERSN-HB-MR - 2271471

<https://www.phoenixcontact.com/pc/products/2271471>

Retainer, for miniature relay



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