

UMK-16 RM/KSR-G 24/21/PLC - Active module



2979498

<https://www.phoenixcontact.com/us/products/2979498>

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VARIOFACE output module, with 16 miniature relays, 1 changeover contact each, plugged, for 24 V DC (basic module, including 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 | 2979498 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C421 |
| Product key | DK2191 |
| GTIN | 4017918130343 |
| Weight per piece (including packing) | 665.5 g |
| Weight per piece (excluding packing) | 580 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|-------------------------|------------------------------------|
| Product type | Interface module |
| No. of channels | 16 |
| | 32 |
| Operating mode | 100% operating factor |
| Mechanical service life | 3x 10 ⁷ cycles |
| Compatible components | Miniature relay, REL-MR- 24DC/21HC |
| With components | yes |

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) |
| | 6 kV (Safe isolation and reinforced insulation between input circuit and output contact paths) |

Supported controller SIEMENS S7-1500

| | |
|-------------------|--------------------|
| Suitable I/O card | 6ES7522-1BL00-0AB0 |
| | 6ES7522-1BL01-0AB0 |

Supported controller SIEMENS S7-400

| | |
|-------------------|--------------------|
| Suitable I/O card | 6ES7422-1BL00-0AA0 |
| | 6ES7422-7BL00-0AB0 |

Supported controller ALLEN-BRADLEY PLC 5

| | |
|-------------------|----------|
| Suitable I/O card | 1771 OBN |
|-------------------|----------|

Supported controller EMERSON DeltaV

| | |
|-------------------|--------------|
| Suitable I/O card | VE4002S1T2B6 |
|-------------------|--------------|

Supported controller GE-FANUC RX3i

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

Supported controller HONEYWELL Experion PKS C200

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

Supported controller MITSUBISHI MELSEC L

| | |
|-------------------|----------|
| Suitable I/O card | LY41PT1P |
| | LY42PT1P |
| | QY82P |

Supported controller MITSUBISHI MELSEC Q

| | |
|-------------------|-------|
| Suitable I/O card | QY81P |
|-------------------|-------|

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Supported controller SCHNEIDER ELECTRIC Modicon TSX QUANTUM

| | |
|-------------------|---------|
| Suitable I/O card | DDO 353 |
|-------------------|---------|

Supported controller SIEMENS S7-300 / ET 200 M

| | |
|-------------------|--------------------|
| Suitable I/O card | 6ES7322-1BL00-0AA0 |
|-------------------|--------------------|

Input data

| | |
|---|--|
| Nominal input voltage U_N | 24 V DC |
| Input voltage range in reference to U_N | 0.9 ... 1.1 |
| Input voltage range | 21.6 V DC ... 26.4 V DC |
| Protective circuit | Freewheeling diode; Freewheeling diode Reverse polarity protection; Polarity protection 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 |
| Min. switching current | 10 mA |
| Interrupting rating (ohmic load) max. | 120 W (24 V DC, $\tau = 0$ ms) 58 W (48 V DC, $\tau = 0$ ms) 48 W (60 V, $\tau = 0$ ms) 50 W (110 V DC, $\tau = 0$ ms) 80 W (220 V DC, $\tau = 0$ ms) 1250 VA (250 V AC, $\tau = 0$ ms) |

Connection data

Controller level

| | |
|-----------------------|-------------------|
| Connection method | IDC/FLK pin strip |
| Number of connections | 1 |
| Number of positions | 50 |
| Pitch | 2.54 mm |

Field level

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Number of connections | 48 |
| Conductor cross-section rigid | 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 |

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Supply

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Number of connections | 4 |
| Conductor cross-section rigid | 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 |

Connection for basic module

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

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. |

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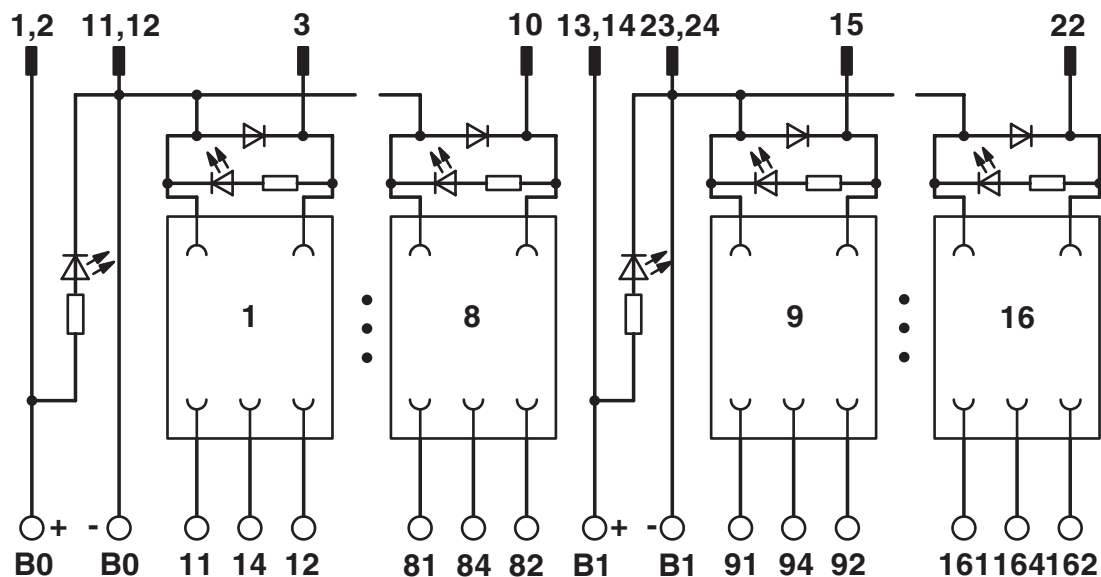
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| | |
|--------------------|--|
| Notes on operation | The outputs are not suitable for switching different line conductors. The sum of the switching voltages used for adjacent outputs must not exceed the rated insulation voltage value |
| Notes on 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. |

Drawings

Circuit diagram




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Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2979498>



EAC

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



UL Listed

Approval ID: E238705



cUL Listed

Approval ID: E238705

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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 | 89a6ac73-982d-454a-8bab-ad5283f974c1 |