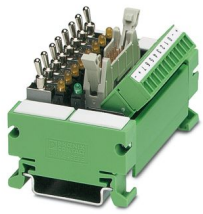
# UM 45-DI/DO/S/LA/SIM8 - Termination board

2968205

https://www.phoenixcontact.com/us/products/2968205

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VARIOFACE switch module, with flat-ribbon cable and COMBICON connector, for simulation, for 8 signals, for mounting on NS 35/7.5

## Commercial data

| | |
|---|---|
| Item number | 2968205 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C422 |
| Product key | DK21A1 |
| GTIN | 4017918173685 |
| Weight per piece (including packing) | 87 g |
| Weight per piece (excluding packing) | 61.08 g |
| Customs tariff number | 85369010 |
| Country of origin | DE |

## Technical data

### Product properties

| | |
|---|---|
| Product type | Interface module |
| Product family | VARIOFACE |

Insulation characteristics: Air clearances and creepage distances

| | |
|---|---|
| Insulation | Functional insulation |
| Overvoltage category | II |
| Pollution degree | 2 |

### Electrical properties

| | |
|---|---|
| Operating voltage range | 19.2 V DC ... 26.4 V DC |
| Current (per branch) | ≤ 1 A |
| Current (Voltage supply +,- IDC/FLK) | ≤ 3 A |
| Current (Terminal block +,-) | ≤ 8 A |

Air clearances and creepage distances

| | |
|---|---|
| Rated insulation voltage | 50 V |
| Rated surge voltage | 0.5 kV (1.2/50 µs) |

Supported controller: ABB S800 I/O

| | |
|---|---|
| Suitable I/O card | DO810 |
| | DI818 |
| | DO840 |

Supported controller: SIEMENS S7-400

| | |
|---|---|
| Suitable I/O card | 6ES7421-1BL01-0AA0 |
| | 6ES7422-1BL00-0AA0 |
| | 6ES7422-7BL00-0AB0 |

Supported controller: GE-FANUC 90-30

| | |
|---|---|
| Suitable I/O card | IC693 MDL241 |
| | IC693 MDL634 |
| | IC693 MDL645 |
| | IC693 MDL646 |
| | IC693 MDL732 |
| | IC693 MDL740 |
| | IC693 MDL742 |

Supported controller: ALLEN-BRADLEY ControlLogix

| | |
|---|---|
| Suitable I/O card | 1756-IB32 |
| | 1756-IB16 |
| | 1756-OB32 |
| | 1756-OB16E |

Supported controller: ALLEN-BRADLEY PLC 5

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

Supported controller: ALLEN-BRADLEY SLC 500

| | |
|---|---|
| Suitable I/O card | 1746 IB16 |
| | 1746 ITB16 |
| | 1746 IN16 |
| | 1746 IB 32 |
| | 1746 OB16 |
| | 1746 OB 32 |

Supported controller: HONEYWELL Experion PKS C200

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

Supported controller: MITSUBISHI MELSEC Q

| | |
|---|---|
| Suitable I/O card | QX81 |
| | QY81P |

Supported controller: SIEMENS S7-300 / ET 200 M

| | |
|---|---|
| Suitable I/O card | CPU 313C-2DP |
| | CPU 314C-2DP |
| | CPU 314C-2PtP |
| | 6ES7321-1BH02-0AA0 |
| | 6ES7321-1BL00-0AA0 |
| | 6ES7323-1BH01-0AA0 |
| | 6ES7323-1BL00-0AA0 |
| | 6ES7321-1BH10-0AA0 |
| | CPU 313C |
| | CPU 313C-2PtP |
| | 6ES7322-1BH01-0AA0 |
| | 6ES7322-1BL00-0AA0 |
| | 6ES7323-1BH01-0AA0 |
| | 6ES7323-1BL00-0AA0 |

Supported controller: SCHNEIDER ELECTRIC Modicon TSX QUANTUM

| | |
|---|---|
| Suitable I/O card | DDI 353 |
| | DDI 853 |

Supported controller: ALLEN-BRADLEY ControlLogix

| | |
|---|---|
| Suitable I/O card | DI810 |
| | DI830 |
| | DI840 |

Supported controller: EMERSON DeltaV

| | |
|---|---|
| | VE4001S2T2B3 |

| | |
|---|---|
| Suitable I/O card | VE4002S1T1B3 |
| | VE4002S1T2B3 |
| | VE4002S1T2B3 Series 2 |
| | VE4002S1T2B6 |

Supported controller: GE-FANUC RX3i

| | |
|---|---|
| Suitable I/O card | IC694MDL660 |
| | IC694MDL754 |

Supported controller: YOKOGAWA CS3000 CentumVP

| | |
|---|---|
| Suitable I/O card | ADV151 |
| | ADV161 |

Supported controller: YOKOGAWA STARDOM

| | |
|---|---|
| Suitable I/O card | NFDV151 |
| | NFDV161 |

## Connection data

Connection 1 (control level)

| | |
|---|---|
| Connection in acc. with standard | IEC 60603-13 |
| Connection method | IDC/FLK pin strip |
| Number of connections | 1 |
| Number of positions | 14 |
| Insertion/withdrawal cycles | > 50 |
| Pitch | 2.54 mm |

Connection 2 (field level)

| | |
|---|---|
| Connection method | Screw connection |
| Stripping length | 7 mm |
| Screw thread | M3 |
| Number of positions | 12 |
| Conductor cross-section rigid | 0.14 mm² ... 1.5 mm² |
| Conductor cross-section rigid (2 conductors with same cross section) | 0.08 mm² ... 0.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 1.5 mm² |
| | 0.25 mm² ... 1.5 mm² (Ferrule without plastic sleeve) |
| | 0.25 mm² ... 0.75 mm² (Ferrule with plastic sleeve) |
| Conductor cross-section flexible (2 conductors with same cross section) | 0.08 mm² ... 0.75 mm² |
| | 0.25 mm² ... 0.34 mm² (Ferrule without plastic sleeve) |
| | 0.5 mm² ... 0.5 mm² (TWIN ferrule with plastic sleeve) |
| Conductor cross-section AWG | 28 ... 16 |
| Tightening torque | 0.22 Nm ... 0.25 Nm |
| Pitch | 3.81 mm |

## Signaling

| | |
|---|---|
| Status display | LED (yellow) |

| | |
|---|---|
| Status display present | yes |
| Operating voltage display | Green LED |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 74.8 mm |
| Height | 50.02 mm |
| Depth | 50.9 mm |

## Material specifications

| | |
|---|---|
| Color | green (RAL 6021) |
| Housing insulation material | PVC |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection (Module) | IP00 |
| Degree of protection (Installation location) | ≥ IP54 |
| Ambient temperature (operation) | -20 °C ... 50 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
| Altitude | ≤ 2000 m |

## Approvals

UKCA

| | |
|---|---|
| Certificate | UKCA-compliant |

## Standards and regulations

Air clearances and creepage distances

| | |
|---|---|
| Standards/regulations | EN IEC 60664-1 |

## Mounting

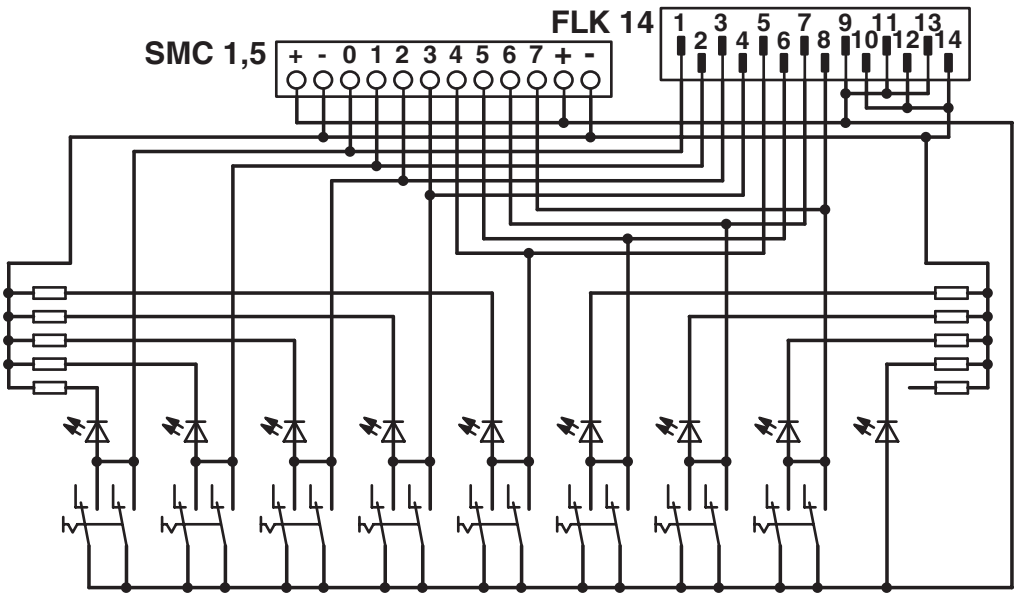
| | |
|---|---|
| Mounting type | DIN rail mounting |
| Mounting position | any |

## Notes

| | |
|---|---|
| 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




Connection scheme UM 45-DI/DO/S/LA/SIM8

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002780 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

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

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.) | No substance above 0.1 wt% |

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com