

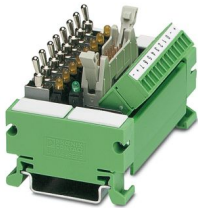
# UM 45-DI/DO/S/LA/SIM8 - Termination board



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                             |

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## 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 |

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## 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 |
|--------------|

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|                                               |                       |
|-----------------------------------------------|-----------------------|
| 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 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
| Conductor cross-section rigid (2 conductors with same cross section)    | 0.08 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>                                   |
| Conductor cross-section flexible                                        | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
|                                                                         | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule without plastic sleeve)  |
|                                                                         | 0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (Ferrule with plastic sleeve)    |
| Conductor cross-section flexible (2 conductors with same cross section) | 0.08 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>                                  |
|                                                                         | 0.25 mm <sup>2</sup> ... 0.34 mm <sup>2</sup> (Ferrule without plastic sleeve) |
|                                                                         | 0.5 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (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) |
|----------------|--------------|

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|                           |           |
|---------------------------|-----------|
| 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. |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

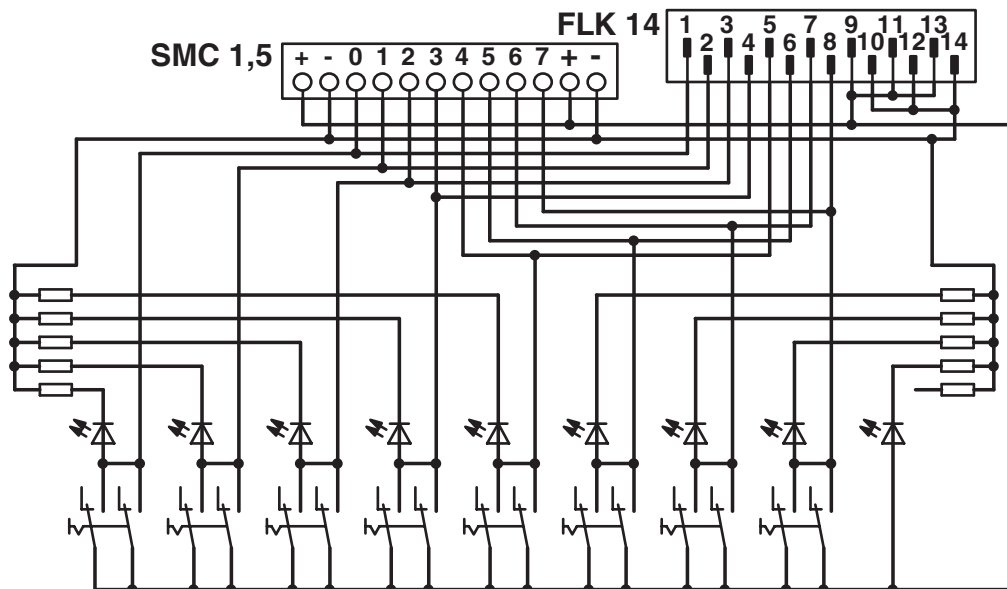
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## Drawings

Circuit diagram



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

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## 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.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
| SCIP                                | 103dbb8a-da43-4d72-a667-84c53856b8f6        |

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