

# Extension module - EM-D-8/4-24DC-IFS



2904473

<https://www.phoenixcontact.com/us/products/2904473>

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For more complex applications with Interface system devices (IFS), the extension module offers digital inputs and outputs for processing additional signals in the field. Easy connection to IFS gateway via the DIN rail connector as the slave.

## Commercial Data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2904473                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to Order (non-returnable) |
| Sales Key                            | C05                            |
| Product Key                          | CK772Z                         |
| Catalog Page                         | Page 21 (C-5-2019)             |
| GTIN                                 | 4046356826051                  |
| Weight per Piece (including packing) | 181.7 g                        |
| Weight per Piece (excluding packing) | 99.99 g                        |
| Customs tariff number                | 85389091                       |
| Country of origin                    | DE                             |

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## Technical Data

### Product properties

|                |                       |
|----------------|-----------------------|
| Product type   | Extension module      |
| Operating mode | 100% operating factor |

### Insulation characteristics

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

### Electrical properties

#### Supply

|  |  |
|--|--|
| Rated control circuit supply voltage $U_S$ | 24 V DC -20 % ... +25 %                  |
| Rated control supply current $I_S$         | 85 mA (plus load current of the outputs) |
| Protective circuit                         | Reverse polarity protection              |
|  | Surge protection                         |

### Input data

#### Digital

|                               |                             |
|-------------------------------|-----------------------------|
| Number                        | 8                           |
| Rated actuating voltage $U_C$ | 24 V DC $\pm$ 20 %          |
| Triggering voltage range      | 19.2 V DC ... 28.8 V DC     |
| Rated actuating current $I_C$ | 3 mA                        |
| Protective circuit            | Reverse polarity protection |
|                               | Surge protection            |

### Output data

#### Digital: Switching outputs

|                               |  |
|-------------------------------|--|
| Number                        | 4  |
| Rated output voltage $U_{SO}$ | 24 V DC  |
| Residual voltage              | 1 V  |
| Maximum switching voltage     | 23 V DC ( $U_B - U_{resid.}$ of the output)  |
| Max. switching current        | 500 mA (per output)  |
| Protective circuit            | Parallel protection against polarity reversal, pay attention to the fuse (Fusing with max. 8 A F-fuse) |

### Connection data

#### Supply

|                               |   |
|-------------------------------|---|
| Connection method             | Screw connection                          |
| Stripping length              | 8 mm                                      |
| Screw thread                  | M3  |
| Conductor cross section solid | 0.2 mm <sup>2</sup> ... 2 mm <sup>2</sup> |

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|                                  |                     |
|----------------------------------|---------------------|
| Conductor cross section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross section AWG      | 24 ... 12           |

## Programming connection

|                       |                 |
|-----------------------|-----------------|
| Connection method     | S-PORT (socket) |
| Number of connections | 1               |
| Number of positions   | 12              |

## INTERFACE system

|                       |                         |
|-----------------------|-------------------------|
| Connection method     | DIN rail bus connectors |
| Number of connections | 1                       |
| Number of positions   | 5                       |

## Interfaces

### Data: IFS interface

|                           |  |
|---------------------------|--|
| Data rate                 | 76800 Baud   |
| Serial transmission speed | 76.8 kbps  |
| Connection method         | DIN rail bus connectors<br>S-PORT (male connector) |

### Data: Service interface

|                        |                  |
|------------------------|------------------|
| Communication protocol | INTERFACE-System |
| Connection method      | S-PORT (socket)  |
| Number of connections  | 1                |
| Number of positions    | 12               |

### Data: Device bus

|                        |                         |
|------------------------|-------------------------|
| Communication protocol | INTERFACE-System        |
| Connection method      | DIN rail bus connectors |
| Number of connections  | 1                       |
| Number of positions    | 5                       |
| Transmission speed     | 76.8 kbps               |

## Dimensions

|        |          |
|--------|----------|
| Width  | 22.5 mm  |
| Height | 99 mm    |
| Depth  | 114.5 mm |

## Material specifications

|                  |                             |
|------------------|-----------------------------|
| Housing material | Polyamide PA non-reinforced |
|------------------|-----------------------------|

## Environmental and real-life conditions

### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Degree of protection            | IP20             |
| Ambient temperature (operation) | -35 °C ... 50 °C |

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|   |
|---|
| Ambient temperature (storage/transport) |
|---|

|                  |
|------------------|
| -35 °C ... 80 °C |
|------------------|

## Approval data

UKCA

|             |
|-------------|
| Certificate |
|-------------|

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

## Standards and regulations

|                       |
|-----------------------|
| Standards/regulations |
|-----------------------|

|            |
|------------|
| EN 61131-2 |
|------------|

## Mounting

|               |
|---------------|
| Mounting type |
|---------------|

|                   |
|-------------------|
| DIN rail mounting |
|-------------------|

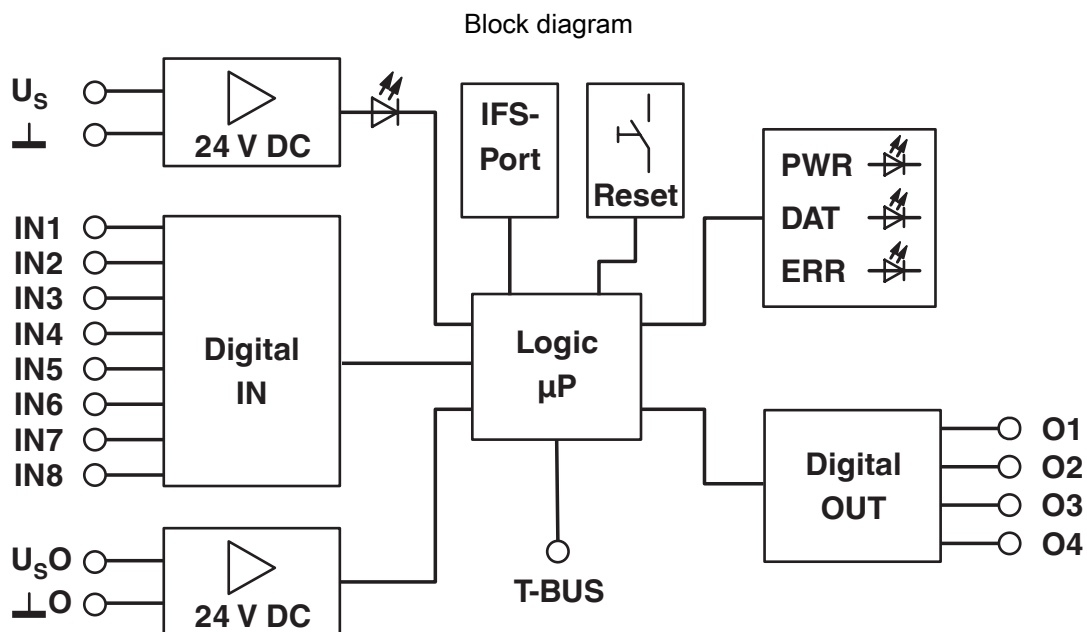
|                       |
|-----------------------|
| Assembly instructions |
|-----------------------|

|                           |
|---------------------------|
| in rows with zero spacing |
|---------------------------|

|                   |
|-------------------|
| Mounting position |
|-------------------|

|     |
|-----|
| any |
|-----|

## Drawings



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## Approvals



**EAC**

Approval ID: RU C-DE.A\*30.B.01082



**UL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 140324

**cULus Listed**

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## Classifications

### ECLASS

|               |          |
|---------------|----------|
| ECLASS-9.0    | 27242604 |
| ECLASS-10.0.1 | 27242604 |
| ECLASS-11.0   | 27242604 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC001599 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 32151600 |
|-------------|----------|

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## Environmental Product Compliance

|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1   |
| 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

### Data cable

Data cable - IFS-USB-DATACABLE - 2320500

<https://www.phoenixcontact.com/us/products/2320500>

Used for communicating between industrial PCs and Phoenix Contact devices with the 12-pos. IFS data port, such as QUINT UPS or TRIO UPS.



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## Accessories

### Memory block

Memory block - IFS-CONFSTICK-L - 2901103

<https://www.phoenixcontact.com/us/products/2901103>

Multi-functional memory block with handle for the INTERFACE system; for easy storage and back up of the configuration.



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## Memory block

Memory block - IFS-CONFSTICK - 2986122

<https://www.phoenixcontact.com/us/products/2986122>



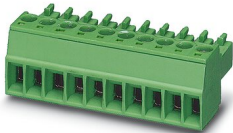
Multi-functional memory block for the INTERFACE systemf for easy storage and backup of the configuration.

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## PCB connector

PCB connector - MC 1,5/ 5-ST-3,81 - 1803604

<https://www.phoenixcontact.com/us/products/1803604>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MC 1,5/-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

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## Printed-circuit board connector

Printed-circuit board connector - IMC 1,5/ 5-ST-3,81 - 1857919

<https://www.phoenixcontact.com/us/products/1857919>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: IMC 1,5/...-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

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## Plug

Plug - IMC 1,5/ 5-ST-3,81SET IL IFS 2M - 1784729

<https://www.phoenixcontact.com/us/products/1784729>



Assembled connecting cable, IL-IFS, 2 m in length

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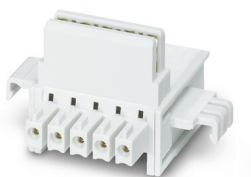
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## DIN rail bus connectors

DIN rail bus connectors - ME 22,5 TBUS 1,5/ 5-ST-3,81 GY - 2201937

<https://www.phoenixcontact.com/us/products/2201937>



DIN rail connector, color: gray, nominal current: 8 A (parallel contacts), rated voltage (III/2): 125 V, number of positions: 5, pitch: 3.81 mm, mounting: DIN rail mounting, locking: without, mounting: without, type of packaging: packed in cardboard, Item with gold-plated contacts, bus connectors for connecting with electronics housings, 5 parallel contacts

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## Adapter

Adapter - IFS-BT-PROG-ADAPTER - 2905872

<https://www.phoenixcontact.com/us/products/2905872>



Bluetooth adapter with micro USB and S-PORT interface for wireless communication with the MINI Analog, MINI Analog Pro, MACX Analog, INTERFACE system gateways, and PLC logic device series.

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## Plastic label

Plastic label - US-EMLP (15X5) - 0828790

<https://www.phoenixcontact.com/us/products/0828790>



Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

## Plastic label

Plastic label - UC-EMLP (15X5) - 0819301

<https://www.phoenixcontact.com/us/products/0819301>



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

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