



SWD Block module I/O module IP69K, 16 inputs with 24 V DC power supply, 8 M12 I/O sockets

Part no. EU8E-SWD-16DX
Catalog No. 174744
Eaton Catalog No. EU8E-SWD-16DX



Delivery program

| | | | |
|----------------------------|--|--|---------------------------------------|
| Product range | | | SmartWire-DT slave |
| Basic function | | | Digital modules |
| Function | | | For connection of digital I/O signals |
| Inputs | | | |
| Digital | | | 16 |
| Connection to SmartWire-DT | | | yes |

Technical data

General

| | | | |
|------------------------|--|----|-------------------|
| Standards | | | IEC/EN 61131-2 |
| Dimensions (W x H x D) | | mm | 60 x 210,3 x 34 |
| Weight | | kg | 0.3 |
| Mounting | | | Screw fixing (M4) |
| Mounting position | | | As required |

Climatic environmental conditions

| | | | |
|---|---|-----|--|
| Climatic proofing | | | Dry heat to IEC 60068-2-2 Damp heat as per EN 60068-2-3 |
| Air pressure (operation) | | hPa | 795 - 1080 |
| Ambient temperature | | | |
| Operation | θ | °C | -25 - +55 |
| Storage / Transport | θ | °C | -40 - +70 |
| Relative humidity | | | |
| Condensation | | | permissible |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) | | % | 5 - 95 |

Ambient conditions, mechanical

| | | | |
|--|-------------|---------|-----------|
| Protection type (IEC/EN 60529, EN50178, VBG 4) | | | IP69K |
| Vibrations (IEC/EN 61131-2:2008) | | | |
| Constant amplitude 3,5 mm | | Hz | 5 - 8.4 |
| Constant acceleration 1 g | | Hz | 8.4 - 150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 30 g/11 ms | | Impacts | 9 |
| Drop to IEC/EN 60068-2-31 | Drop height | mm | 50 |
| Free fall, packaged (IEC/EN 60068-2-32) | | m | 0.3 |

Electromagnetic compatibility (EMC)

| | | | |
|---|--|----|----|
| Overvoltage category | | | II |
| Pollution degree | | | 3 |
| Electrostatic discharge (IEC/EN 61131-2:2008) | | | |
| Air discharge (Level 3) | | kV | 8 |
| Contact discharge (Level 2) | | kV | 4 |

| | | | |
|---|--|-----|------------------|
| Electromagnetic fields (IEC/EN 61131-2:2008) | | | |
| 80 - 1000 MHz | | V/m | 10 |
| 1.4 - 2 GHz | | V/m | 3 |
| 2 - 2.7 GHz | | V/m | 1 |
| Radio interference suppression (SmartWire-DT) | | | EN 55011 Class A |
| Burst (IEC/EN 61131-2:2008, Level 3) | | | |
| Supply cable | | kV | 2 |
| Signal lines | | kV | 1 |
| SmartWire-DT cables | | kV | 1 |
| Surge (IEC/EN 61131-2:2008, Level 1) | | | |
| Surge power cables | | kV | 0.5 |
| Surge I/O cables | | kV | 1 |
| Radiated RFI (IEC/EN 61131-2:2008, Level 3) | | V | 10 |

SmartWire-DT network

| | | | |
|--|--|------|------------------------------|
| Station type | | | SmartWire-DT slave |
| Setting the baud rate | | | automatic |
| Baud rate (data transfer speed) | | kbps | maximum 2000 |
| Status SmartWire-DT | | LED | Green |
| SWD-IN | | | M12 plug (A-keyed), 5 pole |
| SWD-OUT | | | M12 socket (A-keyed), 5 pole |
| Current consumption (24V, without sensor and without I/O supply) | | mA | |
| Current consumption (24 V SWD supply) | | mA | 231 |
| Sensor supply | | | |
| Max. current consumption per M12 I/O plug | | mA | 70 |
| Overload and short-circuit proof | | | yes, with diagnostics |

Connection supply and I/O

| | | | |
|-------------------------|--|--|----------------------------|
| Terminal for I/O sensor | | | |
| Connection type | | | 5-pin M12 socket (A-keyed) |

24 V DC supply for output supply

| | | | |
|--------------|---|---|-----|
| Power supply | | | |
| Power loss | P | W | 5.2 |

Digital inputs

| | | | |
|----------------------------------|--|-----|--|
| Number of digital inputs/outputs | | | 16 |
| Quantity | | | 16 |
| Input current | | mA | Normally 4 at 24 V DC |
| Limit value type 1 | | | Low < 5V DC; High > 15V DC |
| Input delay | | | High->Low < 0.2 ms Low->High < 0.2 ms |
| Status display inputs | | LED | yellow |

Potential isolation

| | | | |
|-------------------------|--|--|----|
| Inputs for SmartWire-DT | | | No |
| Input to input | | | No |

Design verification as per IEC/EN 61439

| | | | |
|--|------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 0 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 0 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 5.2 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature max. | | °C | -25 |
| Operating ambient temperature max. | | °C | 55 |
| Degree of Protection | | | IP67 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |

| | | |
|--|--|--|
| 10.2.3.1 Verification of thermal stability of enclosures | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | Meets the product standard's requirements. |
| 10.4 Clearances and creepage distances | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | Is the panel builder's responsibility. |
| 10.9 Insulation properties | | |
| 10.9.2 Power-frequency electric strength | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | Is the panel builder's responsibility. |
| 10.12 Electromagnetic compatibility | | Is the panel builder's responsibility. |
| 10.13 Mechanical function | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

Technical data ETIM 6.0

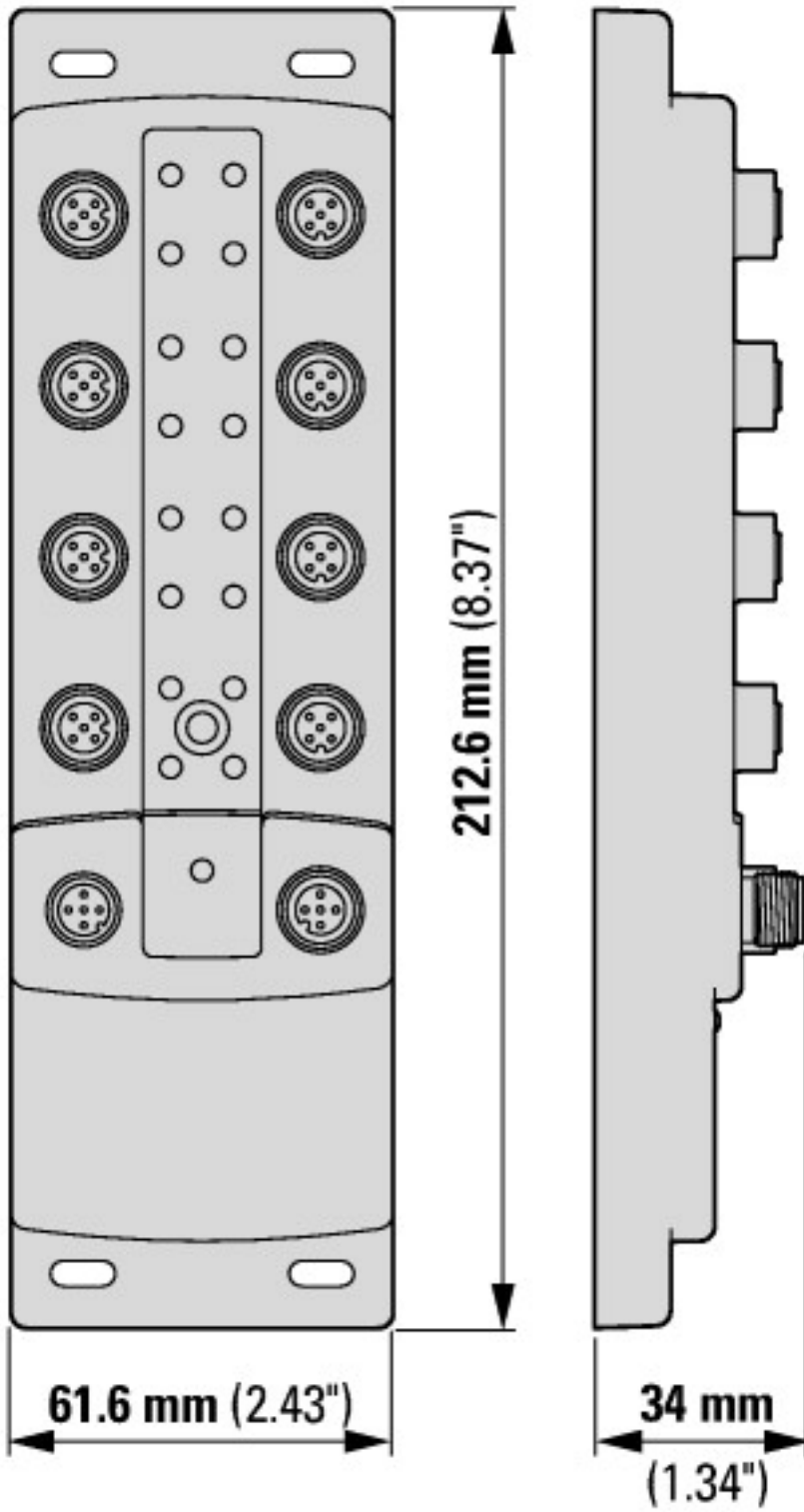
| | | |
|--|----|-------------|
| PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EC001599) | | |
| Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss8.1-27-24-26-04 [BAA055011]) | | |
| Supply voltage AC 50 Hz | V | 0 - 0 |
| Supply voltage AC 60 Hz | V | 0 - 0 |
| Supply voltage DC | V | 20.4 - 28.8 |
| Voltage type of supply voltage | | DC |
| Number of digital inputs | | |
| Number of digital outputs | | |
| Digital inputs configurable | | |
| Digital outputs configurable | | |
| Input current at signal 1 | mA | 4 |
| Permitted voltage at input | V | 20.4 - 28.8 |
| Type of voltage (input voltage) | | DC |
| Type of digital output | | |
| Output current | A | |
| Permitted voltage at output | V | 20.4 - 28.8 |
| Type of output voltage | | DC |
| Short-circuit protection, outputs available | | |
| Number of HW-interfaces industrial Ethernet | | 0 |
| Number of HW-interfaces PROFINET | | 0 |
| Number of HW-interfaces RS-232 | | 0 |
| Number of HW-interfaces RS-422 | | 0 |
| Number of HW-interfaces RS-485 | | 0 |
| Number of HW-interfaces serial TTY | | 0 |
| Number of HW-interfaces parallel | | 0 |
| Number of HW-interfaces Wireless | | 0 |
| Number of HW-interfaces other | | 0 |
| With optical interface | | No |
| Supporting protocol for TCP/IP | | No |
| Supporting protocol for PROFIBUS | | No |

| | | |
|--|----|-------|
| Supporting protocol for CAN | | No |
| Supporting protocol for INTERBUS | | No |
| Supporting protocol for ASI | | No |
| Supporting protocol for KNX | | No |
| Supporting protocol for MODBUS | | No |
| Supporting protocol for Data-Highway | | No |
| Supporting protocol for DeviceNet | | No |
| Supporting protocol for SUCONET | | No |
| Supporting protocol for LON | | No |
| Supporting protocol for PROFINET IO | | No |
| Supporting protocol for PROFINET CBA | | No |
| Supporting protocol for SERCOS | | No |
| Supporting protocol for Foundation Fieldbus | | No |
| Supporting protocol for EtherNet/IP | | No |
| Supporting protocol for AS-Interface Safety at Work | | No |
| Supporting protocol for DeviceNet Safety | | No |
| Supporting protocol for INTERBUS-Safety | | No |
| Supporting protocol for PROFIsafe | | No |
| Supporting protocol for SafetyBUS p | | No |
| Supporting protocol for other bus systems | | Yes |
| Radio standard Bluetooth | | No |
| Radio standard WLAN 802.11 | | No |
| Radio standard GPRS | | No |
| Radio standard GSM | | No |
| Radio standard UMTS | | No |
| IO link master | | No |
| System accessory | | Yes |
| Degree of protection (IP) | | IP69K |
| Type of electric connection | | - |
| Time delay at signal exchange | ms | |
| Fieldbus connection over separate bus coupler possible | | Yes |
| Rail mounting possible | | Yes |
| Wall mounting/direct mounting | | Yes |
| Front build in possible | | No |
| Rack-assembly possible | | No |
| Suitable for safety functions | | No |
| Category according to EN 954-1 | | |
| SIL according to IEC 61508 | | None |
| Performance level acc. to EN ISO 13849-1 | | None |
| Appendant operation agent (Ex ia) | | No |
| Appendant operation agent (Ex ib) | | No |
| Explosion safety category for gas | | None |
| Explosion safety category for dust | | None |
| Width | mm | 61.6 |
| Height | mm | 212.6 |
| Depth | mm | 34 |

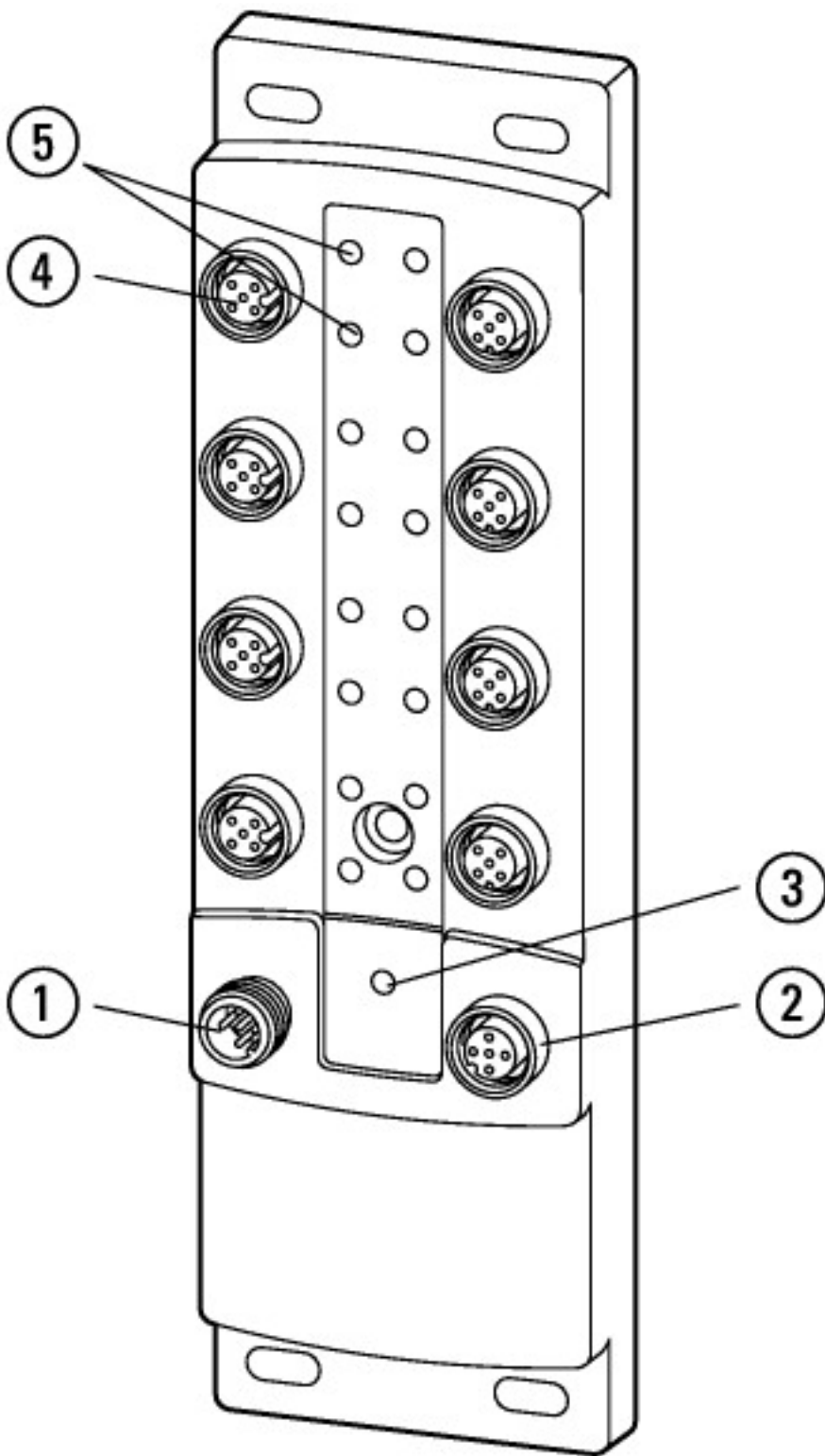
Approvals

| | | |
|--------------------------------------|--|--------------------------|
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |

Dimensions



SmartWire-DT I/O modules, EU8E-SWD-... block module



- ① SmartWire-DT connection SWD IN
- ② SmartWire-DT connection SWD OUT
- ③ SmartWire-DT diagnostics LED
- ④ I/O connection X1...X8
- ⑤ I/O status indicators

Additional product information (links)

Manual SmartWire-DT, SWD module IP6x MN120006

Handbuch SmartWire-DT, SWD-Teilnehmer IP6x MN120006 - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_DE.pdf

Manual SmartWire-DT, SWD module IP6x MN120006 - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_EN.pdf

MN05006002Z SmartWire-DT manual, The System

MN05006002Z Handbuch SmartWire-DT, Das System - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf

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|---|---|
| MN05006002Z SmartWire-DT manual, The System - English | ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf |
| MN05006002Z Manuale SmartWire-DT, il sistema - italiano | ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf |
| SmartWire-DT product range catalog | http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=Titel |
| Technical data | http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=62 |
| f1=1457&f2=1181&f3=1188;SWD-ASSIST | http://applications.eaton.eu/sdlc?LX=11&amp |