



**SWD Block module I/O module IP69K, 8 inputs with 24 V DC power supply, 4 M12 I/O sockets**

**Part no. EU6E-SWD-8DX**  
**Catalog No. 174736**  
**Eaton Catalog No. EU6E-SWD-8DX**

## Delivery program

|                            |  |  |                                       |
|----------------------------|--|--|---------------------------------------|
| Product range              |  |  | SmartWire-DT slave                    |
| Basic function             |  |  | Digital modules                       |
| Function                   |  |  | For connection of digital I/O signals |
| <b>Inputs</b>              |  |  |                                       |
| Digital                    |  |  | 8                                     |
| Connection to SmartWire-DT |  |  | yes                                   |

## Technical data

### General

|                        |  |    |                   |
|------------------------|--|----|-------------------|
| Standards              |  |    | IEC/EN 61131-2    |
| Dimensions (W x H x D) |  | mm | 60 x 157 x 34     |
| Weight                 |  | kg | 0.25              |
| Mounting               |  |    | Screw fixing (M4) |
| Mounting position      |  |    | As required       |

### Climatic environmental conditions

|   |   |     |  |
|---|---|-----|--|
| Climatic proofing                                     |   |     | Dry heat to IEC 60068-2-2<br>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   | 98                           |
| 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 | 2.2 |

### Digital inputs

|                       |  |     |  |
|-----------------------|--|-----|--|
| Quantity              |  |     | 8  |
| 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<br>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  | 2.2  |
| 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  |            |    |  |
| 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

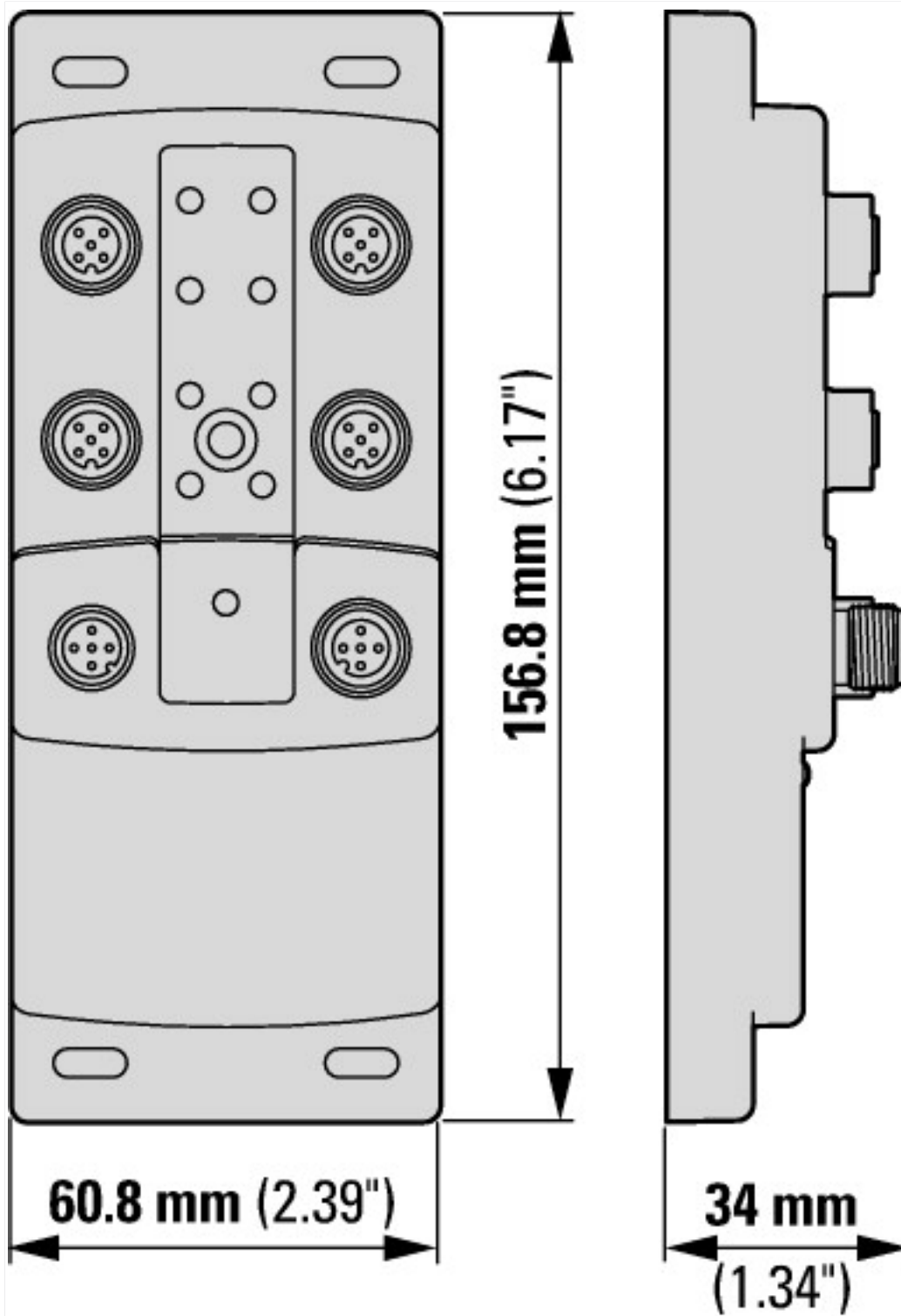
|  |    |             |
|--|----|-------------|
| PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EC001599)  |    |             |
| Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - 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   |    | 8           |
| Number of digital outputs  |    | 0           |
| Digital inputs configurable  |    | No          |
| Digital outputs configurable   |    | No          |
| 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  | 0           |
| Permitted voltage at output  | V  | 20.4 - 28.8 |
| Type of output voltage   |    | DC          |
| Short-circuit protection, outputs available  |    | Yes         |
| 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                            |    | Screw connection |
| Time delay at signal exchange                          | ms | 0.2 - 0.2        |
| Fieldbus connection over separate bus coupler possible |    | Yes              |
| Rail mounting possible                                 |    | No               |
| Wall mounting/direct mounting                          |    | Yes              |
| Front build in possible                                |    | No               |
| Rack-assembly possible                                 |    | Yes              |
| 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 | 60.8             |
| Height   | mm | 156.8            |
| Depth  | mm | 34               |

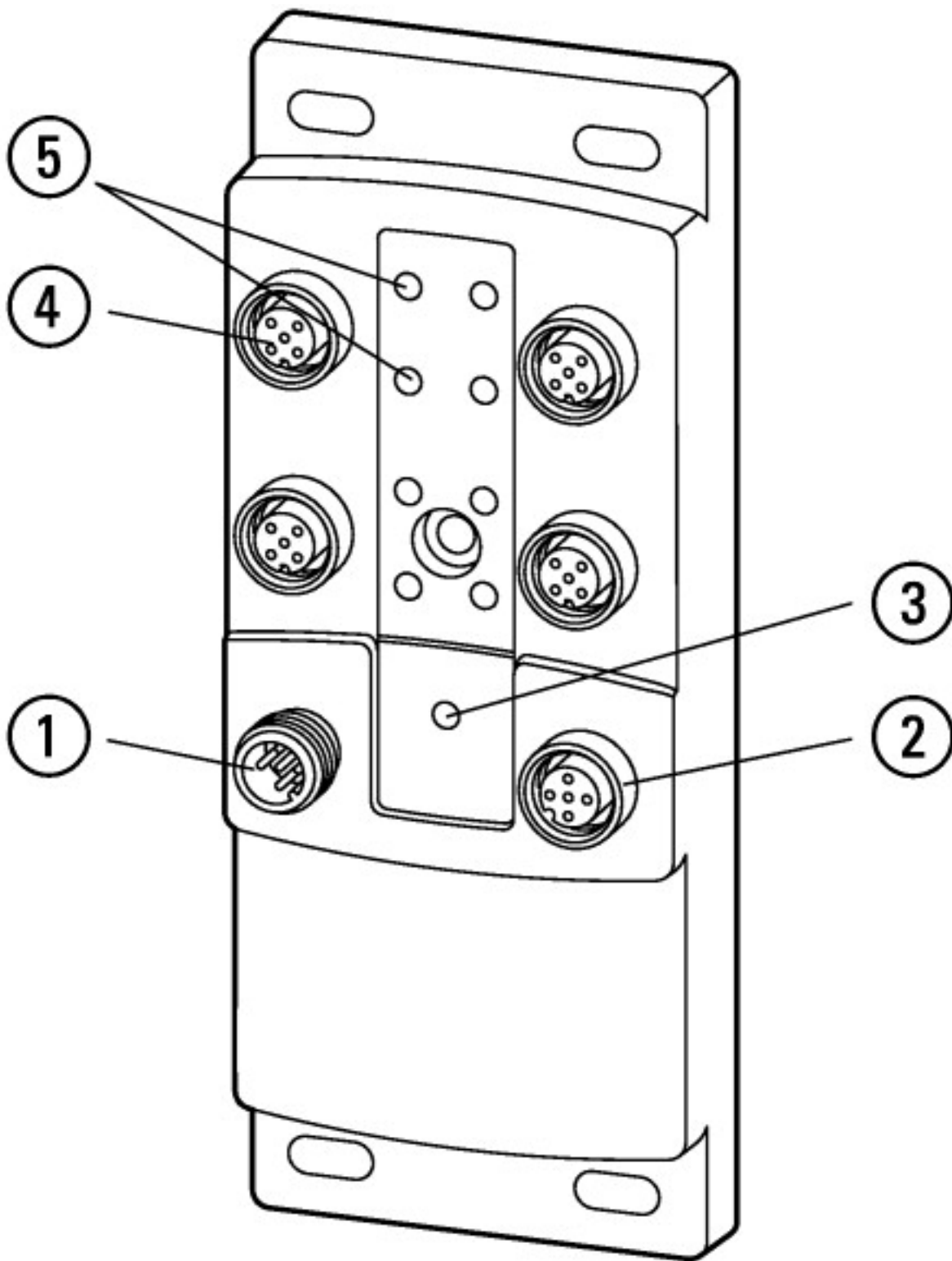
## Approvals

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

## Dimensions



SmartWire-DT I/O modules, EU6E-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...X4
- 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](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](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](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf)

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