

## LOGO! logic module



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# LOGO! logic module

## Introduction

### LOGO! logic module

#### Overview



#### LOGO! logic module

- The compact, easy-to-use and low-cost solution for simple control tasks
- Compact, easy to operate, universally applicable without accessories
- "All in one": Integrated display and operator panel
- 36 different functions can be connected at the press of a button or by means of PC software; up to 130 times
- LOGO! 8: 38/43 different functions can be linked at the press of a button or using PC software; up to 200/400 times
- Functions are easy to change at the press of a button. No more time-consuming rewiring

#### SIPLUS LOGO!

- The controller for use in the toughest ambient conditions
- With extended temperature range from -40/-25 °C to +70 °C
- Suitable for exposure to environmental substances (harmful gas atmosphere)
- Condensation permissible
- With the proven PLC technology of LOGO!
- Easy to handle, program, maintain, and service
- Ideal for use in automotive engineering, environmental engineering, mining, chemical plants, conveyor technology, food industry, etc.

#### Accessories:

- The front panel mounting kit also allows simple and reliable installation of the logic modules in front panels; degree of protection IP65 is thus possible.
- In order to ensure dependable operation of devices supplied by the battery in conjunction with combustion engines, it is necessary to put in a SIPLUS upmiter upstream device between the battery and the SIPLUS LOGO!.

More information is available at:

<http://www.siemens.com/siplus-extreme>

#### General technical specifications SIPLUS LOGO!

|                              |   |
|------------------------------|---|
| Range of ambient temperature | -40/-25 ... +70 °C  |
| Conformal coating            | Coating of the printed-circuit boards and the electronic components                   |
| Technical specifications     | The technical data of the standard product applies except for the ambient conditions. |

#### Ambient conditions

|   |   |
|---|---|
| Extended range of ambient conditions  |   |
| <ul style="list-style-type: none"> <li>• With reference to ambient temperature, air pressure and installation altitude</li> </ul> | Tmin ... Tmax at<br>1080 hPa ... 795 hPa<br>(-1000 m ... +2000 m) //<br>Tmin ... (Tmax - 10K) at<br>795 hPa ... 658 hPa<br>(+2000 m ... +3500 m) //<br>Tmin ... (Tmax - 20K) at<br>658 hPa ... 540 hPa<br>(+3500 m ... +5000 m)<br>0 °C |
| <ul style="list-style-type: none"> <li>• At cold restart, min.</li> </ul>   | 0 °C  |
| Relative humidity   |   |
| <ul style="list-style-type: none"> <li>• With condensation, max.</li> </ul>   | 100%; RH incl. condensation/frost<br>(no commissioning in bedewed state)  |
| Resistance  |   |
| <ul style="list-style-type: none"> <li>• To biologically active substances/ compliance with EN 60721-3-3</li> </ul>               | Yes; Class 3B2 mold and fungal spores (except fauna); the supplied plug covers must remain in place on the unused interfaces during operation.  |
| <ul style="list-style-type: none"> <li>• To chemically active substances/ compliance with EN 60721-3-3</li> </ul>                 | Yes; Class 3C4 (RH < 75%) incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.  |
| <ul style="list-style-type: none"> <li>• To mechanically active substances, compliance with EN 60721-3-3</li> </ul>               | Yes; Class 3S4 incl. sand, dust; the supplied plug covers must remain in place on unused interfaces during operation.   |

### Overview



- The space-saving basic versions
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro SD cards

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### Ordering data

| Ordering data   | Article No.               | Ordering data   | Article No.  |
|---|---------------------------|---|--|
| <b>LOGO! 8 logic module</b>   |                           | <b>Accessories</b>  |  |
| <b>LOGO! 24CE</b><br>Supply voltage 24 V DC,<br>8 digital inputs 24 V DC,<br>of which 4 can be used<br>in analog mode (0 to 10 V),<br>4 digital outputs 24 V DC, 0.3 A,<br>integrated time switch,<br>Ethernet interface;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability   | <b>6ED1052-1CC08-0BA1</b> | <b>LOGO! 8 Text Display HMI</b><br>6-line text display, can be<br>connected to all LOGO! 8 variants<br>with and without display,<br>with 2 Ethernet interfaces;<br>incl. installation accessories.<br>Requires additional 12 V DC or<br>24 V AC/DC power supply | <b>6ED1055-4MH08-0BA1</b>                              |
| <b>LOGO! 12/24RCE</b><br>Supply voltage<br>12...24 V DC,<br>8 digital inputs 12/24 V DC,<br>of which 4 can be used<br>in analog mode (0 to 10 V)<br>4 relay outputs 10 A,<br>integrated time switch,<br>Ethernet interface;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability | <b>6ED1052-1MD08-0BA1</b> | <b>LOGO!Soft Comfort V8</b><br>For programming on the PC in<br>LAD/FBD; executes on Windows 8,<br>7, XP, Linux and Mac OSX; on DVD  | <b>6ED1058-0BA08-0YA1</b>                              |
| <b>LOGO! 24RCE</b><br>Supply voltage 24 V AC/DC,<br>8 digital inputs 24 V AC/DC,<br>4 relay outputs 10 A,<br>integrated time switch,<br>Ethernet interface;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability   | <b>6ED1052-1HB08-0BA1</b> | <b>LOGO! Starter Kits</b><br>In TANOS Box, with LOGO!<br>Soft Comfort V8, WinCC Basic,<br>Ethernet cable  |  |
| <b>LOGO! 230RCE</b><br>Supply voltage<br>115...230 V AC/DC,<br>8 digital inputs<br>115...230 V AC/DC,<br>4 relay outputs 10 A,<br>integrated time switch,<br>Ethernet interface;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability  | <b>6ED1052-1FB08-0BA1</b> | <b>LOGO! Starter Kit 12/24RCE</b><br>With LOGO! 12/24RCE,<br>power supply,<br>screwdriver, in Systainer   | <b>6ED1057-3BA01-0AA8</b>                              |
|   |                           | <b>LOGO! Starter Kit 230RCE</b><br>With LOGO! 230RCE,<br>power supply,<br>screwdriver, in Systainer   | <b>6ED1057-3BA03-0AA8</b>                              |
|   |                           | <b>LOGO! Starter Kit 12/24V</b><br>With LOGO! 12/24RCEO, LOGO! TD,<br>power supply,<br>screwdriver, in Systainer  | <b>6ED1057-3BA11-0AA8</b>                              |
|   |                           | <b>Front panel mounting kit</b><br>Width 4 U, with keys<br>Width 8 U, with keys   | <b>6AG1057-1AA00-0AA3</b><br><b>6AG1057-1AA00-0AA2</b> |

**LOGO! logic module**

## LOGO! basic and expansion modules

**LOGO! basic modules with display****Technical specifications**

| Article number  | <b>6ED1052-1CC08-0BA1</b><br>LOGO! 24CE,<br>8DI(4AI)/4DO, 400 Blocks                | <b>6ED1052-1MD08-0BA1</b><br>LOGO!12/24RCE,<br>8DI(4AI)/4DO, 400 Blocks             | <b>6ED1052-1HB08-0BA1</b><br>LOGO! 24RCE,<br>8DI/4DO, 400 Blocks                    | <b>6ED1052-1FB08-0BA1</b><br>LOGO!230RCE,<br>8DI/4DO, 400 Blocks                    |
|---|---|---|---|---|
| <b>Display</b>  |   |   |   |   |
| with display  | Yes   | Yes   | Yes   | Yes   |
| <b>Installation type/mounting</b>                           |   |   |   |   |
| Mounting  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  |
| <b>Supply voltage</b>                                       |   |   |   |   |
| Rated value (DC)  |   |   |   |   |
| • 12 V DC   | Yes   | Yes   | Yes   |   |
| • 24 V DC   |   | Yes   |   |   |
| • 115 V DC  |   |   |   | Yes   |
| • 230 V DC  |   |   |   | Yes; 240 V DC   |
| Rated value (AC)  |   |   |   |   |
| • 24 V AC   |   |   | Yes   |   |
| • 115 V AC  |   |   |   | Yes   |
| • 230 V AC  |   |   |   | Yes; 240 V AC   |
| <b>Time of day</b>  |   |   |   |   |
| <b>Time switching clocks</b>                                |   |   |   |   |
| • Number  | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   |
| • Power reserve   | 480 h   | 480 h   | 480 h   | 480 h   |
| <b>Digital inputs</b>                                       |   |   |   |   |
| Number of digital inputs                                    | 8; Of which 4 can be used in<br>analog mode (0 to 10 V)                             | 8; Of which 4 can be used in<br>analog mode (0 to 10 V)                             | 8   | 8   |
| <b>Digital outputs</b>                                      |   |   |   |   |
| Number of digital outputs                                   | 4; Transistor   | 4; Relays   | 4; Relays   | 4; Relays   |
| Short-circuit protection                                    | Yes; electrical (1 A)   | No; external fusing<br>necessary  | No; external fusing<br>necessary  | No; external fusing<br>necessary  |
| <b>Output current</b>                                       |   |   |   |   |
| • for signal "I" permissible range for<br>0 to 55 °C, max.  | 0.3 A   | 10 A  |   |   |
| <b>Relay outputs</b>  |   |   |   |   |
| <b>Switching capacity of contacts</b>                       |   |   |   |   |
| - with inductive load, max.                                 |   | 3 A   | 3 A   | 3 A   |
| - with resistive load, max.                                 |   | 10 A  | 10 A  | 10 A  |
| <b>EMC</b>  |   |   |   |   |
| <b>Emission of radio interference acc.<br/>to EN 55 011</b> |   |   |   |   |
| • Limit class B, for use in residential<br>areas            | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B |
| <b>Standards, approvals, certificates</b>                   |   |   |   |   |
| CE mark   | Yes   | Yes   | Yes   | Yes   |
| CSA approval  | Yes   | Yes   | Yes   | Yes   |
| UL approval   | Yes   | Yes   | Yes   | Yes   |
| FM approval   | Yes   | Yes   | Yes   | Yes   |
| developed in accordance with<br>IEC 61131                   | Yes   | Yes   | Yes   | Yes   |
| according to VDE 0631                                       | Yes   | Yes   | Yes   | Yes   |
| Marine approval   | Yes   | Yes   | Yes   | Yes   |
| <b>Ambient conditions</b>                                   |   |   |   |   |
| <b>Ambient temperature during<br/>operation</b>             |   |   |   |   |
| • min.  | -20 °C; No condensation   | -20 °C; No condensation   | -20 °C; No condensation   | -20 °C; No condensation   |
| • max.  | 55 °C   | 55 °C   | 55 °C   | 55 °C   |
| <b>Altitude during operation relating<br/>to sea level</b>  |   |   |   |   |
| • Ambient air temperature-barometric<br>pressure-altitude   | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                |
| <b>Dimensions</b>   |   |   |   |   |
| Width   | 71.5 mm   | 71.5 mm   | 71.5 mm   | 71.5 mm   |
| Height  | 90 mm   | 90 mm   | 90 mm   | 90 mm   |
| Depth   | 60 mm   | 60 mm   | 60 mm   | 60 mm   |

#### Overview



- Basic versions optimized for costs
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- With connection option for LOGO! TDE text display
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro SD cards

#### Ordering data

| Ordering data  | Article No.               | Ordering data  | Article No.               |
|--|---------------------------|--|---------------------------|
| <b>LOGO! 8 logic module</b>  |                           | <b>Accessories</b>   |                           |
| <b>LOGO! 24CEo logic module</b><br>24 V DC supply voltage,<br>8 digital inputs 24 V DC, of which<br>4 can be used in analog mode<br>(0 to 10 V),<br>4 digital outputs 24 V DC, 0.3 A,<br>integral time switch<br>Ethernet interface;<br>without display and keyboard;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability      | <b>6ED1052-2CC08-0BA1</b> | <b>LOGO! TDE Text Display</b><br>6-line text display, can be<br>connected to all LOGO!<br>8 variants with and without display,<br>with 2 Ethernet interfaces;<br>incl. installation accessories.<br><br>Requires additional<br>12 V DC or 24 V AC/DC<br>power supply | <b>6ED1055-4MH08-0BA1</b> |
| <b>LOGO! 12/24RCEo logic module</b><br>12...24 V DC supply voltage,<br>8 digital inputs 12...24 V DC,<br>of which 4 can be used in analog<br>mode (0 to 10 V),<br>4 relay outputs 10 A,<br>integrated time switch,<br>Ethernet interface;<br>without display and keyboard;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability | <b>6ED1052-2MD08-0BA1</b> | <b>LOGO!Soft Comfort V8</b><br>For programming on the PC in<br>LAD/FBD; executes on<br>Windows 8, 7, XP, Linux and<br>Mac OSX; on DVD  | <b>6ED1058-0BA08-0YA1</b> |
| <b>LOGO! 24RCEo logic module</b><br>24 V AC/DC supply voltage,<br>8 digital inputs 24 V AC/DC,<br>4 relay outputs 10 A,<br>integral time switch;<br>Ethernet interface;<br>without display or keyboard;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability  | <b>6ED1052-2HB08-0BA1</b> | <b>LOGO! Starter Kits</b><br>In TANOS Box,<br>with LOGO! Soft Comfort V8,<br>WinCC Basic, Ethernet cable   |                           |
| <b>LOGO! 230RCEo logic module</b><br>115...230 V AC/DC supply voltage,<br>8 digital inputs 115...230 V AC/DC,<br>4 relay outputs 10 A,<br>integral time switch;<br>Ethernet interface;<br>without display or keyboard;<br>400 function blocks can be<br>interlinked, modular<br>expansion capability   | <b>6ED1052-2FB08-0BA1</b> | <b>LOGO! Starter Kit 12/24RCE</b><br>With LOGO! 12/24RCE,<br>power supply,<br>screwdriver, in Systainer  | <b>6ED1057-3BA01-0AA8</b> |
|  |                           | <b>LOGO! Starter Kit 230RCE</b><br>With LOGO! 230RCE,<br>power supply,<br>screwdriver, in Systainer  | <b>6ED1057-3BA03-0AA8</b> |
|  |                           | <b>LOGO! Starter Kit 12/24V</b><br>With LOGO! 12/24RCEO, LOGO! TD,<br>power supply,<br>screwdriver, in Systainer   | <b>6ED1057-3BA11-0AA8</b> |

**LOGO! logic module**

## LOGO! basic and expansion modules

**LOGO! basic modules without display****Technical specifications**

| Article number  | <b>6ED1052-2CC08-0BA1</b><br>LOGO! 24CEo,<br>8DI(4AI)/4DO, 400 Blocks               | <b>6ED1052-2MD08-0BA1</b><br>LOGO!12/24RCEO,<br>8DI(4AI)/4DO,400 Blocks             | <b>6ED1052-2HB08-0BA1</b><br>LOGO! 24RCEO,<br>8DI/4DO, 400 Blocks                   | <b>6ED1052-2FB08-0BA1</b><br>LOGO!230RCEO,<br>8DI/4DO,400 Blocks                    |
|---|---|---|---|---|
| <b>Installation type/mounting</b>                           |   |   |   |   |
| Mounting  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  | on 35 mm DIN rail,<br>4 spacing units wide  |
| <b>Supply voltage</b>                                       |   |   |   |   |
| Rated value (DC)  |   |   |   |   |
| • 12 V DC   |   | Yes   |   |   |
| • 24 V DC   | Yes   | Yes   | Yes   |   |
| • 115 V DC  |   |   |   | Yes   |
| • 230 V DC  |   |   |   | Yes; 240 V DC   |
| Rated value (AC)  |   |   |   |   |
| • 24 V AC   |   |   | Yes   |   |
| • 115 V AC  |   |   |   | Yes   |
| • 230 V AC  |   |   |   | Yes; 240 V AC   |
| <b>Time of day</b>  |   |   |   |   |
| <b>Time switching clocks</b>                                |   |   |   |   |
| • Number  | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   | 400; Max. 400,<br>function-specific   |
| • Power reserve   | 480 h   | 480 h   |   | 480 h   |
| <b>Digital inputs</b>                                       |   |   |   |   |
| Number of digital inputs                                    | 8; Of which 4 can be used in<br>analog mode (0 to 10 V)                             | 8; Of which 4 can be used in<br>analog mode (0 to 10 V)                             | 8   | 8   |
| <b>Digital outputs</b>                                      |   |   |   |   |
| Number of digital outputs                                   | 4; Transistor   | 4; Relays   | 4; Relays   | 4; Relays   |
| Short-circuit protection                                    | Yes; electrical (1 A)   | No; external fusing<br>necessary  | No; external fusing<br>necessary  | No; external fusing<br>necessary  |
| <b>Output current</b>                                       |   |   |   |   |
| • for signal "I" permissible range for<br>0 to 55 °C, max.  | 0.3 A   | 10 A  |   |   |
| <b>Relay outputs</b>  |   |   |   |   |
| <b>Switching capacity of contacts</b>                       |   |   |   |   |
| - with inductive load, max.                                 |   | 3 A   | 3 A   | 3 A   |
| - with resistive load, max.                                 |   | 10 A  | 10 A  | 10 A  |
| <b>EMC</b>  |   |   |   |   |
| <b>Emission of radio interference acc.<br/>to EN 55 011</b> |   |   |   |   |
| • Limit class B, for use in residential<br>areas            | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B | Yes; Radio interference<br>suppression according to<br>EN55011, Limit Value Class B |
| <b>Standards, approvals, certificates</b>                   |   |   |   |   |
| CE mark   | Yes   | Yes   | Yes   | Yes   |
| CSA approval  | Yes   | Yes   | Yes   | Yes   |
| UL approval   | Yes   | Yes   | Yes   | Yes   |
| FM approval   | Yes   | Yes   | Yes   | Yes   |
| developed in accordance with<br>IEC 61131                   | Yes   | Yes   | Yes   | Yes   |
| according to VDE 0631                                       | Yes   | Yes   | Yes   | Yes   |
| Marine approval   | Yes   | Yes   | Yes   | Yes   |
| <b>Ambient conditions</b>                                   |   |   |   |   |
| <b>Ambient temperature during<br/>operation</b>             |   |   |   |   |
| • min.  | -20 °C; No condensation   | -20 °C; No condensation   | -20 °C; No condensation   | -20 °C; No condensation   |
| • max.  | 55 °C   | 55 °C   | 55 °C   | 55 °C   |
| <b>Altitude during operation relating to<br/>sea level</b>  |   |   |   |   |
| • Ambient air temperature-barometric<br>pressure-altitude   | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax at<br>1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                | Tmin ... Tmax<br>at 1 080 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                |
| <b>Dimensions</b>   |   |   |   |   |
| Width   | 71.5 mm   | 71.5 mm   | 71.5 mm   | 71.5 mm   |
| Height  | 90 mm   | 90 mm   | 90 mm   | 90 mm   |
| Depth   | 60 mm   | 60 mm   | 60 mm   | 60 mm   |

**Overview**


- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs, or analog outputs

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**Ordering data**
**Article No.**
**Article No.**
**LOGO! 8 expansion modules**
**LOGO! DM8 24**

24 V DC supply voltage,  
4 digital inputs 24 V DC,  
4 digital outputs 24 V DC, 0.3 A

**6ED1055-1CB00-0BA2**
**LOGO! DM16 24**

24 V DC supply voltage,  
8 digital inputs 24 V DC,  
8 digital outputs 24 V DC, 0.3 A

**6ED1055-1CB10-0BA2**
**LOGO! DM8 12/24R**

12...24 V DC supply voltage,  
4 digital inputs 12...24 V DC,  
4 relay outputs 5 A

**6ED1055-1MB00-0BA2**
**LOGO! DM8 24R**

24 V AC/DC supply voltage,  
4 digital inputs 24 V AC/DC,  
4 relay outputs 5 A

**6ED1055-1HB00-0BA2**
**LOGO! DM16 24R**

24 V DC supply voltage,  
8 digital inputs 24 V DC,  
8 relay outputs 5 A

**6ED1055-1NB10-0BA2**
**LOGO! DM8 230R**

115...230 V AC/DC supply voltage,  
4 digital inputs 115...230 V AC/DC,  
4 relay outputs 5 A

**6ED1055-1FB00-0BA2**
**LOGO! DM16 230R**

115...230 V AC/DC supply voltage,  
8 digital inputs 115...230 V AC/DC,  
8 relay outputs 5 A

**6ED1055-1FB10-0BA2**
**LOGO! AM2**

12...24 V DC supply voltage,  
2 analog inputs 0 to 10 V or  
0 to 20 mA, resolution 10 bits

**6ED1055-1MA00-0BA2**
**LOGO! AM2 PT 100**

12...24 V DC supply voltage,  
2 analog inputs Pt100,  
temperature range  
-50 °C to 200 °C

**6ED1055-1MD00-0BA2**
**LOGO! AM2 AQ**

24 V DC supply voltage,  
2 analog outputs 0 to 10 V,  
0/4 to 20 mA

**6ED1055-1MM00-0BA2**
**Accessories for LOGO! 8**
**LOGO!Soft Comfort V8**

For programming on the PC in  
LAD/FBD; executes on  
Windows 8, 7, XP, Linux and  
Mac OSX; on DVD

**6ED1058-0BA08-0YA1**



**LOGO! logic module**

## LOGO! basic and expansion modules

**LOGO! expansion modules****Technical specifications**

| Article number  | <b>6ED1055-1CB00-0BA2</b><br>LOGO! DM8 24 Exp. mod.,<br>4DI/4DO | <b>6ED1055-1HB00-0BA2</b><br>LOGO! DM8 24R Exp. mod.<br>2 U, 4DI/4DO | <b>6ED1055-1MB00-0BA2</b><br>LOGO! DM8 12/24R<br>Exp. mod. 2 U, 4DI/DO | <b>6ED1055-1FB00-0BA2</b><br>LOGO! DM8 230R Exp. mod.<br>2 U, 4DI/4DO |
|---|---|--|--|---|
| <b>Installation type/mounting</b>                         | on 35 mm DIN rail,<br>2 spacing units wide                      |  |  |   |
| Mounting  | on 35 mm DIN rail,<br>2 spacing units wide                      | on 35 mm DIN rail,<br>2 spacing units wide                           | on 35 mm DIN rail,<br>2 spacing units wide                             | on 35 mm DIN rail,<br>2 spacing units wide                            |
| <b>Supply voltage</b>                                     |   |  |  |   |
| Rated value (DC)  | Yes   | Yes  | Yes  | Yes<br>Yes  |
| • 12 V DC   |   |  | Yes  |   |
| • 24 V DC   |   |  | Yes  |   |
| • 115 V DC  |   |  |  |   |
| • 230 V DC  |   |  |  |   |
| Rated value (AC)  |   | Yes  |  | Yes<br>Yes  |
| • 24 V AC   |   |  |  |   |
| • 115 V AC  |   |  |  |   |
| • 230 V AC  |   |  |  |   |
| <b>Line frequency</b>                                     |   |  |  |   |
| • permissible range, lower limit                          |   | 47 Hz  |  | 47 Hz   |
| • permissible range, upper limit                          |   | 63 Hz  |  | 63 Hz   |
| <b>Digital inputs</b>                                     |   |  |  |   |
| Number of digital inputs                                  | 4   | 4  | 4  | 4   |
| <b>Input voltage</b>                                      |   |  |  |   |
| • Type of input voltage                                   | DC  | AC/DC  | DC   | AC/DC   |
| • for signal "0"  | < 5 V DC  | < 5 V AC/DC  | < 5 V DC   | < 40 V AC, < 30 V DC  |
| • for signal "1"  | > 12 V DC   | > 12 V AC/DC   | > 8.5 V  | > 79 V AC, > 79 V DC  |
| <b>Input current</b>                                      |   |  |  |   |
| • for signal "0", max.<br>(permissible quiescent current) | 0.88 mA   | 1.1 mA   | 0.88 mA  | 0.06 mA; 0.05 mA with AC,<br>0.06 mA with DC                          |
| • for signal "1", typ.                                    | 2.1 mA  | 2.63 mA  | 1.5 mA   | 0.13 mA   |
| <b>Input delay (for rated value of input voltage)</b>     |   |  |  |   |
| <b>for standard inputs</b>                                |   |  |  |   |
| - at "0" to "1", max.                                     | 1.5 ms  | 1.5 ms   | 1.5 ms   | 40 ms   |
| - at "1" to "0", max.                                     | 1.5 ms  | 15 ms  | 1.5 ms   | 75 ms   |
| <b>Digital outputs</b>                                    |   |  |  |   |
| Number of digital outputs                                 | 4   | 4; Relays  | 4; Relays  | 4; Relays   |
| Short-circuit protection                                  | Yes   | No   | No   | No  |
| Controlling a digital input                               |   | Yes  | Yes  | Yes   |
| <b>Switching capacity of the outputs</b>                  |   |  |  |   |
| • on lamp load, max.                                      |   | 1 000 W  | 1 000 W  | 1 000 W;<br>500 W at 115V AC  |
| <b>Parallel switching of two outputs</b>                  |   |  |  |   |
| • for uprating  | No  | No   | No   | No  |
| <b>Switching frequency</b>                                |   |  |  |   |
| • with resistive load, max.                               | 10 Hz   | 2 Hz   | 2 Hz   | 2 Hz  |
| • with inductive load, max.                               | 0.5 Hz  | 0.5 Hz   | 0.5 Hz   | 0.5 Hz  |
| • mechanical, max.  |   | 10 Hz  | 10 Hz  | 10 Hz   |
| <b>Relay outputs</b>                                      |   |  |  |   |
| <b>Switching capacity of contacts</b>                     |   |  |  |   |
| - with inductive load, max.                               |   | 3 A  | 3 A  | 3 A   |
| - with resistive load, max.                               |   | 5 A  | 5 A  | 5 A   |
| <b>EMC</b>  |   |  |  |   |
| <b>Emission of radio interference acc. to EN 55 011</b>   |   |  |  |   |
| • Limit class B, for use in residential areas             | Yes   | Yes  | Yes  | Yes   |
| <b>Degree and class of protection</b>                     |   |  |  |   |
| IP degree of protection                                   | IP20  | IP20   | IP20   | IP20  |



**Technical specifications**

| Article number  | <b>6ED1055-1CB00-0BA2</b><br>LOGO! DM8 24 Exp. mod.,<br>4DI/4DO       | <b>6ED1055-1HB00-0BA2</b><br>LOGO! DM8 24R Exp. mod.<br>2 U, 4DI/4DO  | <b>6ED1055-1MB00-0BA2</b><br>LOGO! DM8 12/24R<br>Exp. mod. 2 U, 4DI/DO | <b>6ED1055-1FB00-0BA2</b><br>LOGO! DM8 230R Exp. mod.<br>2 U, 4DI/4DO |
|---|---|---|--|---|
| <b>Standards, approvals, certificates</b>                 |   |   |  |   |
| CE mark   | Yes   | Yes   | Yes  | Yes   |
| CSA approval  | Yes   | Yes   | Yes  | Yes   |
| UL approval   | Yes   | Yes   | Yes  | Yes   |
| FM approval   | Yes   | Yes   | Yes  | Yes   |
| developed in accordance with IEC 61131                    | Yes   | Yes   | Yes  | Yes   |
| according to VDE 0631                                     | Yes   | Yes   |  | Yes   |
| Marine approval   | Yes   | Yes   | Yes  | Yes   |
| <b>Ambient conditions</b>                                 |   |   |  |   |
| <b>Ambient temperature during operation</b>               |   |   |  |   |
| • min.  | 0 °C; ES03 and higher: -20 °C   | 0 °C; ES03 and higher: -20 °C   | 0 °C; ES03 and higher: -20 °C  | 0 °C; ES03 and higher: -20 °C   |
| • max.  | 55 °C   | 55 °C   | 55 °C  | 55 °C   |
| <b>Dimensions</b>   |   |   |  |   |
| Width   | 35.5 mm   | 35.5 mm   | 35.5 mm  | 35.5 mm   |
| Height  | 90 mm   | 90 mm   | 90 mm  | 90 mm   |
| Depth   | 58 mm   | 58 mm   | 58 mm  | 58 mm   |
| <hr/>   |   |   |  |   |
| Article number  | <b>6ED1055-1CB10-0BA2</b><br>LOGO! DM16 24 Exp. mod., 4 U,<br>8DI/8DO | <b>6ED1055-1NB10-0BA2</b><br>LOGO! DM16 24R Exp. mod. 4 U,<br>8DI/8DO | <b>6ED1055-1FB10-0BA2</b><br>LOGO! DM16 230R Exp. mod. 4 U,<br>8DI/8DO |   |
| <b>Installation type/mounting</b>                         |   |   |  |   |
| Mounting  | on 35 mm DIN rail,<br>4 spacing units wide                            | on 35 mm DIN rail,<br>4 spacing units wide                            | on 35 mm DIN rail,<br>4 spacing units wide                             |   |
| <b>Supply voltage</b>                                     |   |   |  |   |
| Rated value (DC)  | Yes   | Yes   | Yes<br>Yes   |   |
| • 24 V DC   |   |   |  |   |
| • 115 V DC  |   |   |  |   |
| Rated value (AC)  | No  | No  | Yes<br>Yes   |   |
| • 24 V AC   |   |   |  |   |
| • 115 V AC  |   |   |  |   |
| • 230 V AC  |   |   | Yes<br>Yes   |   |
| <b>Line frequency</b>                                     |   |   |  |   |
| • permissible range, lower limit                          |   |   | 47 Hz  |   |
| • permissible range, upper limit                          |   |   | 63 Hz  |   |
| <b>Digital inputs</b>                                     |   |   |  |   |
| Number of digital inputs                                  | 8   | 8   | 8  |   |
| <b>Input voltage</b>                                      |   |   |  |   |
| • Type of input voltage                                   | DC  | DC  | AC/DC  |   |
| • for signal *0*  | < 5 V DC  | < 5 V DC  | < 40 V AC, < 30 V DC   |   |
| • for signal *1*  | > 12 V DC   | > 12 V DC   | > 79 V AC, > 79 V DC   |   |
| <b>Input current</b>                                      |   |   |  |   |
| • for signal *0*, max.<br>(permissible quiescent current) | 0.85 mA   | 0.85 mA   | 0.06 mA; 0.05 mA with AC,<br>0.06 mA with DC                           |   |
| • for signal *1*, typ.                                    | 2 mA  | 2 mA  | 0.13 mA  |   |
| <b>Input delay (for rated value of input voltage)</b>     |   |   |  |   |
| <b>for standard inputs</b>                                |   |   |  |   |
| - at *0* to *1*, max.                                     | 1.5 ms  | 1.5 ms  | 40 ms  |   |
| - at *1* to *0*, max.                                     | 1.5 ms  | 1.5 ms  | 75 ms  |   |

**LOGO! logic module**

## LOGO! basic and expansion modules

**LOGO! expansion modules****Technical specifications**

| Article number  | <b>6ED1055-1CB10-0BA2</b><br>LOGO! DM16 24 Exp. mod., 4 U,<br>8DI/8DO | <b>6ED1055-1NB10-0BA2</b><br>LOGO! DM16 24R Exp. mod. 4 U,<br>8DI/8DO | <b>6ED1055-1FB10-0BA2</b><br>LOGO! DM16 230R Exp. mod. 4 U,<br>8DI/8DO |
|---|---|---|--|
| <b>Digital outputs</b>                                  |   |   |  |
| Number of digital outputs                               | 8   | 8; Relays   | 8; Relays  |
| Short-circuit protection                                | Yes   | No  | No   |
| Controlling a digital input                             |   | Yes   | Yes  |
| <b>Switching capacity of the outputs</b>                |   |   |  |
| • on lamp load, max.                                    |   | 1 000 W   | 1 000 W; 500 W at 115V AC  |
| <b>Parallel switching of two outputs</b>                |   |   |  |
| • for uprating  | No  | No  | No   |
| <b>Switching frequency</b>                              |   |   |  |
| • with resistive load, max.                             | 10 Hz   | 2 Hz  | 2 Hz   |
| • with inductive load, max.                             | 0.5 Hz  | 0.5 Hz  | 0.5 Hz   |
| • mechanical, max.                                      |   | 10 Hz   | 10 Hz  |
| <b>Relay outputs</b>                                    |   |   |  |
| <b>Switching capacity of contacts</b>                   |   |   |  |
| - with inductive load, max.                             |   | 3 A   | 3 A  |
| - with resistive load, max.                             |   | 5 A   | 5 A  |
| <b>EMC</b>  |   |   |  |
| <b>Emission of radio interference acc. to EN 55 011</b> |   |   |  |
| • Limit class B, for use in residential areas           | Yes   | Yes   | Yes  |
| <b>Degree and class of protection</b>                   |   |   |  |
| IP degree of protection                                 | IP20  | IP20  | IP20   |
| <b>Standards, approvals, certificates</b>               |   |   |  |
| CE mark   | Yes   | Yes   | Yes  |
| CSA approval  | Yes   | Yes   | Yes  |
| UL approval   | Yes   | Yes   | Yes  |
| FM approval   | Yes   | Yes   | Yes  |
| developed in accordance with IEC 61131                  | Yes   | Yes   | Yes  |
| according to VDE 0631                                   | Yes   | Yes   | Yes  |
| Marine approval   | Yes   | Yes   | Yes  |
| <b>Ambient conditions</b>                               |   |   |  |
| <b>Ambient temperature during operation</b>             |   |   |  |
| • min.  | 0 °C; ES03 and higher: -20 °C   | 0 °C; ES03 and higher: -20 °C   | 0 °C; ES03 and higher: -20 °C  |
| • max.  | 55 °C   | 55 °C   | 55 °C  |
| <b>Dimensions</b>                                       |   |   |  |
| Width   | 71.5 mm   | 71.5 mm   | 71.5 mm  |
| Height  | 90 mm   | 90 mm   | 90 mm  |
| Depth   | 58 mm   | 58 mm   | 58 mm  |

**Technical specifications**

| Article number   | <b>6ED1055-1MA00-0BA2</b><br>LOGO! AM2 Exp. mod., 12/24V, 2AI | <b>6ED1055-1MD00-0BA2</b><br>LOGO! AM2 RDT, 2AI, -50..+200 °C |
|--|---|---|
| <b>Installation type/mounting</b>                          |   |   |
| Mounting   | on 35 mm DIN rail, 2 spacing units wide                       | on 35 mm DIN rail, 2 spacing units wide                       |
| <b>Supply voltage</b>                                      |   |   |
| Rated value (DC)   |   |   |
| • 12 V DC  | Yes; 10.8 V DC to 28.8 V DC                                   | Yes; 10.8 V DC to 28.8 V DC                                   |
| • 24 V DC  | Yes; 10.8 V DC to 28.8 V DC                                   | Yes; 10.8 V DC to 28.8 V DC                                   |
| <b>Analog inputs</b>                                       |   |   |
| Number of analog inputs                                    | 2   | 2; 2 or 3 wire connection                                     |
| <b>Input ranges</b>  |   |   |
| • Voltage  | Yes   | No  |
| • Current  | Yes   | No  |
| • Resistance thermometer                                   | No  | Yes; For PT100/PT1000 sensors                                 |
| <b>Input ranges (rated values), voltages</b>               |   |   |
| • 0 to +10 V   | Yes   | No  |
| <b>Input ranges (rated values), currents</b>               |   |   |
| • 0 to 20 mA   | Yes; 0 mA or 4 mA to 20 mA                                    | No  |
| <b>Input ranges (rated values), resistance thermometer</b> |   |   |
| • Pt 100   | No  | Yes   |
| <b>EMC</b>   |   |   |
| <b>Emission of radio interference acc. to EN 55 011</b>    |   |   |
| • Limit class B, for use in residential areas              | Yes   | Yes   |
| <b>Degree and class of protection</b>                      |   |   |
| IP degree of protection                                    | IP20  | IP20  |
| <b>Standards, approvals, certificates</b>                  |   |   |
| CE mark  | Yes   | Yes   |
| CSA approval   | Yes   | Yes   |
| UL approval  | Yes   | Yes   |
| FM approval  | Yes   | Yes   |
| developed in accordance with IEC 61131                     | Yes   | Yes   |
| according to VDE 0631                                      | Yes   |   |
| Marine approval  | Yes   | Yes   |
| <b>Ambient conditions</b>                                  |   |   |
| <b>Ambient temperature during operation</b>                |   |   |
| • min.   | 0 °C; ES03 and higher: -20 °C                                 | 0 °C; ES03 and higher: -20 °C                                 |
| • max.   | 55 °C   | 55 °C   |
| <b>Dimensions</b>  |   |   |
| Width  | 35.5 mm   | 35.5 mm   |
| Height   | 90 mm   | 90 mm   |
| Depth  | 58 mm   | 58 mm   |

**LOGO! logic module**

LOGO! basic and expansion modules

**LOGO! expansion modules****Technical specifications**

|   |  |
|---|--|
| Article number  | <b>6ED1055-1MM00-0BA2</b><br>LOGO! AM2 AQ, 2AQ, 0-10V,<br>0/4-20mA |
| <b>Installation type/mounting</b>                       |  |
| Mounting  | on 35 mm DIN rail,<br>2 spacing units wide                         |
| <b>Supply voltage</b>                                   |  |
| Rated value (DC)  | 24 V   |
| <b>Analog outputs</b>                                   |  |
| Number of analog outputs                                | 2  |
| <b>Output ranges, voltage</b>                           |  |
| • 0 to 10 V   | Yes  |
| <b>Output ranges, current</b>                           |  |
| • 0 to 20 mA  | Yes  |
| • 4 mA to 20 mA   | Yes  |
| <b>EMC</b>  |  |
| <b>Emission of radio interference acc. to EN 55 011</b> |  |
| • Limit class B, for use in residential areas           | Yes  |
| <b>Degree and class of protection</b>                   |  |
| IP degree of protection                                 | IP20   |

|   |  |
|---|--|
| Article number                              | <b>6ED1055-1MM00-0BA2</b><br>LOGO! AM2 AQ, 2AQ, 0-10V,<br>0/4-20mA |
| <b>Standards, approvals, certificates</b>   |  |
| CE mark                                     | Yes  |
| CSA approval                                | Yes  |
| UL approval                                 | Yes  |
| FM approval                                 | Yes  |
| developed in accordance with IEC 61131      | Yes  |
| according to VDE 0631                       | Yes  |
| Marine approval                             | Yes  |
| <b>Ambient conditions</b>                   |  |
| <b>Ambient temperature during operation</b> |  |
| • min.                                      | 0 °C; ES03 and higher: -20 °C                                      |
| • max.                                      | 55 °C  |
| <b>Dimensions</b>                           |  |
| Width                                       | 35.5 mm  |
| Height                                      | 90 mm  |
| Depth                                       | 58 mm  |

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#### Overview



- The space-saving basic versions
- Interface for connecting expansion modules, up to 24 digital inputs, 20 (16) digital outputs, 8 analog inputs and 8 (2) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 and 0BA7 basic variants); LOGO! TDE can be connected to LOGO! 8 or higher

#### New for LOGO! 8

- All basic units with integrated web server
- Same enclosure width as LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panel and PC
- Use of standard micro SD cards

#### LOGO! 0BA7 versions:

- Ethernet interface for communication with SIMATIC Controllers, SIMATIC Panel and PC
- Networking of max. 8 LOGO! devices
- Use of standard SD card or SIMATIC Memory Card

#### Note:

SIPLUS LOGO! 6/7 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

#### Ordering data

#### Article No.

##### SIPLUS LOGO! 8 logic module

##### SIPLUS LOGO! 24CE

24 V DC supply voltage, 8 digital inputs 24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

**6AG1052-1CC08-7BA1**

##### SIPLUS LOGO! 12/24RCE

12...24 V DC supply voltage, 8 digital inputs 12/24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

**6AG1052-1MD08-7BA1**

##### SIPLUS LOGO! 24RCE

24 V AC/DC supply voltage, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

**6AG1052-1HB08-7BA1**

##### SIPLUS LOGO! 230RCE

115...230 V AC/DC supply voltage, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

**6AG1052-1FB08-7BA1**

#### Accessories

##### SIPLUS LOGO! TDE

(Extended temperature range -25 ... +60 °C (start-up -20 °C) and exposure to environmental substances)

6-line text display, can be connected to all LOGO! 8 variants with and without display, with 2 Ethernet interfaces; incl. installation accessories. Requires additional 12 V DC or 24 V AC/DC power supply

**6AG1055-4MH08-2BA1**

##### LOGO!Soft Comfort V8

For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD

**6ED1058-0BA08-0YA1**

##### Front panel mounting kit

Width 8 U, with keys

**6AG1057-1AA00-0AA2**

**LOGO! logic module**

## LOGO! basic and expansion modules

**SIPLUS LOGO! basic modules with display****Technical specifications**

| Article number  | <b>6AG1052-1CC08-7BA1</b>   | <b>6AG1052-1MD08-7BA1</b>   | <b>6AG1052-1FB08-7BA1</b>  | <b>6AG1052-1HB08-7BA1</b>   |
|---|---|---|--|---|
| Based on  | <b>6ED1052-1CC08-0BA1</b><br>SIPLUS LOGO! 24CE  | <b>6ED1052-1MD08-0BA1</b><br>SIPLUS LOGO! 12/24RCE  | <b>6ED1052-1FB08-0BA1</b><br>SIPLUS LOGO! 230RCE   | <b>6ED1052-1HB08-0BA1</b><br>SIPLUS LOGO! 24RCE   |
| <b>Ambient conditions</b>   |   |   |  |   |
| <b>Ambient temperature during operation</b>                         |   |   |  |   |
| • min.  | -25 °C; = Tmin;<br>Startup @ -20 °C   | -25 °C; = Tmin;<br>Startup @ -20 °C   | -25 °C; = Tmin;<br>Startup @ -20 °C  | -25 °C; = Tmin;<br>Startup @ -20 °C   |
| • max.  | 60 °C; = Tmax   | 60 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay or<br>max. load 3 A per relay and<br>half the number of DIs<br>(no adjacent points)   | 60 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay  | 70 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay or<br>max. load 3 A per relay and<br>half the number of DIs<br>(no adjacent points)   |
| • At cold restart, min.   | -20 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  | -20 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  | -20 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)     | -20 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  |
| <b>Altitude during operation relating to sea level</b>              |   |   |  |   |
| • Installation altitude above sea level, max.                       | 5 000 m   | 5 000 m   | 2 000 m  | 5 000 m   |
| • Ambient air temperature-barometric pressure-altitude              | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                                       | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) |
| <b>Relative humidity</b>  |   |   |  |   |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  |
| <b>Resistance</b>   |   |   |  |   |
| <b>Coolants and lubricants</b>                                      |   |   |  |   |
| - Resistant to commercially available coolants and lubricants       | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air  | Yes; Incl. diesel and oil droplets in the air   |
| <b>Use in stationary industrial systems</b>                         |   |   |  |   |
| - to biologically active substances according to EN 60721-3-3       | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request         | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  |
| - to chemically active substances according to EN 60721-3-3         | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *                   | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  |
| - to mechanically active substances according to EN 60721-3-3       | Yes; Class 3S4 incl. sand, dust; *  | Yes; Class 3S4 incl. sand, dust; *  | Yes; Class 3S4 incl. sand, dust; *   | Yes; Class 3S4 incl. sand, dust; *  |
| <b>Use on ships/at sea</b>  |   |   |  |   |
| - to biologically active substances according to EN 60721-3-6       | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request                              | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   |
| - to chemically active substances according to EN 60721-3-6         | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *                   | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  |
| - to mechanically active substances according to EN 60721-3-6       | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *   | Yes; Class 6S3 incl. sand, dust; *  |

**Technical specifications**

| Article number  | <b>6AG1052-1CC08-7BA1</b>   | <b>6AG1052-1MD08-7BA1</b>   | <b>6AG1052-1FB08-7BA1</b>   | <b>6AG1052-1HB08-7BA1</b>   |
|---|---|---|---|---|
| Based on  | <b>6ED1052-1CC08-0BA1</b><br>SIPLUS LOGO! 24CE  | <b>6ED1052-1MD08-0BA1</b><br>SIPLUS LOGO! 12/24RCE  | <b>6ED1052-1FB08-0BA1</b><br>SIPLUS LOGO! 230RCE  | <b>6ED1052-1HB08-0BA1</b><br>SIPLUS LOGO! 24RCE   |
| <b>Usage in industrial process technology</b>   |   |   |   |   |
| - Against chemically active substances acc. to EN 60654-4   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   |
| - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04                            | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) |
| <b>Remark</b>   |   |   |   |   |
| - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04             | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  |
| <b>Conformal coating</b>  |   |   |   |   |
| • Coatings for printed circuit board assemblies acc. to EN 61086  | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   |
| • Protection against fouling acc. to EN 60664-3   | Yes; Type 1 protection  | Yes; Type 1 protection  | Yes; Type 1 protection  | Yes; Type 1 protection  |
| • Military testing according to MIL-I-46058C, Amendment 7   | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  |
| • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   |



## LOGO! logic module

LOGO! basic and expansion modules

### SIPLUS LOGO! basic modules without display

#### Overview



- Basic versions optimized for costs
- Interface for connecting expansion modules, up to 24 digital inputs, 16 (20) digital outputs, 8 analog inputs and 2 (8) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 basic variants)

#### New for SIPLUS LOGO! 8

- All basic units with integrated web server
- Same enclosure width as SIPLUS LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panel and PC
- Use of standard micro SD cards

#### Note:

SIPLUS LOGO! 6 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

#### Ordering data

#### Article No.

##### SIPLUS LOGO! 8 logic module

##### SIPLUS LOGO! 24CEo

24 V DC supply voltage  
8 digital inputs 24 V DC, of which 4 can be used in analog mode (0 to 10 V)  
4 digital outputs 24 V DC, 0.3 A,  
Integrated time switch  
Ethernet interface;  
without display and keyboard  
400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

6AG1052-2CC08-7BA1

##### SIPLUS LOGO! 230RCEo

115...230 V AC/DC supply voltage  
8 digital inputs 115...230 V AC/DC  
4 relay outputs 10 A  
Integrated time switch  
Ethernet interface;  
without display or keyboard  
400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

6AG1052-2FB08-7BA1

##### SIPLUS LOGO! 24RCEo

24 V AC/DC supply voltage,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integrated time switch,  
Ethernet interface;  
without display or keyboard;  
400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

6AG1052-2HB08-7BA1

##### SIPLUS LOGO! 12/24RCEo

12...24 V DC supply voltage  
8 digital inputs 12...24 V DC, of which 4 can be used in analog mode (0 to 10 V)  
4 relay outputs 10 A  
Integrated time switch  
Ethernet interface;  
without display and keyboard  
400 function blocks can be interlinked, modular expansion capability

Extended temperature range and exposure to environmental substances

6AG1052-2MD08-7BA1

#### Accessories

##### SIPLUS LOGO! TDE

(Extended temperature range -25 ... +60 °C (start-up -20 °C) and exposure to environmental substances)

6-line text display, can be connected to all LOGO! 8 variants with and without display, with 2 Ethernet interfaces; incl. installation accessories. Requires additional 12 V DC or 24 V AC/DC power supply

6AG1055-4MH08-2BA1

##### LOGO!Soft Comfort V8

For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD

6ED1058-0BA08-0YA1

##### Front panel mounting kit

Width 8 U, with keys

6AG1057-1AA00-0AA2

**Technical specifications**

| Article number  | <b>6AG1052-2CC08-7BA1</b>   | <b>6AG1052-2MD08-7BA1</b>   | <b>6AG1052-2HB08-7BA1</b>   | <b>6AG1052-2FB08-7BA1</b>  |
|---|---|---|---|--|
| Based on  | <b>6ED1052-2CC08-0BA1</b><br>SIPLUS LOGO! 24CEO   | <b>6ED1052-2MD08-0BA1</b><br>SIPLUS LOGO! 12/24RCEO   | <b>6ED1052-2HB08-0BA1</b><br>SIPLUS LOGO! 24RCEO (AC)   | <b>6ED1052-2FB08-0BA1</b><br>SIPLUS LOGO! 230RCEO  |
| <b>Ambient conditions</b>   |   |   |   |  |
| <b>Ambient temperature during operation</b>                         |   |   |   |  |
| • min.  | -40 °C; = Tmin;<br>Startup @ -25 °C   | -40 °C; = Tmin;<br>Startup @ -25 °C   | -40 °C; = Tmin;<br>Startup @ -25 °C   | -40 °C; = Tmin;<br>Startup @ -25 °C  |
| • max.  | 70 °C; Tmax; Tmax > +55 °C<br>max. load 0.2 A per output  | 70 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay or<br>max. load 3 A per relay and<br>half the number of DIs<br>(no adjacent points)   | 70 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay or<br>max. load 3 A per relay and<br>half the number of DIs<br>(no adjacent points)   | 70 °C; Tmax; Tmax > +55 °C<br>max. load 1 A per relay  |
| • At cold restart, min.   | -25 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  | -25 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  | -25 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)  | -25 °C; incl. condensation /<br>frost permitted<br>(no commissioning under<br>condensation conditions)     |
| <b>Altitude during operation relating to sea level</b>              |   |   |   |  |
| • Installation altitude above sea level, max.                       | 5 000 m   | 5 000 m   | 5 000 m   | 2 000 m  |
| • Ambient air temperature-barometric pressure-altitude              | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K)<br>at 658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K)<br>at 658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K)<br>at 795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K)<br>at 658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m)                                       |
| <b>Relative humidity</b>  |   |   |   |  |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation  | 100 %; RH incl.<br>condensation / frost (no<br>commissioning in bedewed<br>state), horizontal installation |
| <b>Resistance</b>   |   |   |   |  |
| <b>Coolants and lubricants</b>                                      |   |   |   |  |
| - Resistant to commercially available coolants and lubricants       | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air  |
| <b>Use in stationary industrial systems</b>                         |   |   |   |  |
| - to biologically active substances according to EN 60721-3-3       | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request         |
| - to chemically active substances according to EN 60721-3-3         | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *                   |
| - to mechanically active substances according to EN 60721-3-3       | Yes; Class 3S4 incl. sand, dust; *  | Yes; Class 3S4 incl. sand, dust; *  | Yes; Class 3S4 incl. sand, dust; *  | Yes; Class 3S4 incl. sand, dust; *   |
| <b>Use on ships/at sea</b>  |   |   |   |  |
| - to biologically active substances according to EN 60721-3-6       | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request                              |
| - to chemically active substances according to EN 60721-3-6         | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *                   |
| - to mechanically active substances according to EN 60721-3-6       | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *   |

**LOGO! logic module**

## LOGO! basic and expansion modules

**SIPLUS LOGO! basic modules without display****Technical specifications**

| Article number  | <b>6AG1052-2CC08-7BA1</b>   | <b>6AG1052-2MD08-7BA1</b>   | <b>6AG1052-2HB08-7BA1</b>   | <b>6AG1052-2FB08-7BA1</b>   |
|---|---|---|---|---|
| Based on  | <b>6ED1052-2CC08-0BA1</b><br>SIPLUS LOGO! 24CEO   | <b>6ED1052-2MD08-0BA1</b><br>SIPLUS LOGO! 12/24RCEO   | <b>6ED1052-2HB08-0BA1</b><br>SIPLUS LOGO! 24RCEO (AC)   | <b>6ED1052-2FB08-0BA1</b><br>SIPLUS LOGO! 230RCEO   |
| <b>Usage in industrial process technology</b>   |   |   |   |   |
| - Against chemically active substances acc. to EN 60654-4   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   |
| - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04                            | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) |
| <b>Remark</b>   |   |   |   |   |
| - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04             | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  |
| <b>Conformal coating</b>  |   |   |   |   |
| • Coatings for printed circuit board assemblies acc. to EN 61086  | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   | Yes; Class 2 for high reliability   |
| • Protection against fouling acc. to EN 60664-3   | Yes; Type 1 protection  | Yes; Type 1 protection  | Yes; Type 1 protection  | Yes; Type 1 protection  |
| • Military testing according to MIL-I-46058C, Amendment 7   | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  | Yes; Discoloration of coating possible during service life  |
| • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   | Yes; Conformal coating, Class A   |

#### Overview



- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs, or analog outputs

#### Note:

SIPLUS LOGO! 6 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

#### Ordering data

#### Article No.

|  |                           |
|--|---------------------------|
| <b>SIPLUS LOGO! 8 expansion modules</b>  |                           |
| <b>SIPLUS LOGO! DM8 24</b><br>24 V DC supply voltage,<br>4 digital inputs 24 V DC,<br>4 digital outputs 24 V DC, 0.3 A<br><br>Extended temperature range and exposure to environmental substances          | <b>6AG1055-1CB00-7BA2</b> |
| <b>SIPLUS LOGO! DM8 230R</b><br>115...230 V AC/DC supply voltage,<br>4 digital inputs 115...230 V AC/DC,<br>4 relay outputs 5 A<br><br>Extended temperature range and exposure to environmental substances | <b>6AG1055-1FB00-7BA2</b> |
| <b>SIPLUS LOGO! DM8 24R</b><br>24 V AC/DC supply voltage,<br>4 digital inputs 24 V AC/DC,<br>4 relay outputs 5 A<br><br>Extended temperature range and exposure to environmental substances                | <b>6AG1055-1HB00-7BA2</b> |
| <b>SIPLUS LOGO! AM2</b><br>12...24 V DC supply voltage,<br>2 analog inputs 0 to 10 V or<br>0 to 20 mA, 10-bit resolution<br><br>Extended temperature range and exposure to environmental substances        | <b>6AG1055-1MA00-7BA2</b> |
| <b>SIPLUS LOGO! DM8 12/24R</b><br>12...24 V DC supply voltage,<br>4 digital inputs 12...24 V DC,<br>4 relay outputs 5 A<br><br>Extended temperature range and exposure to environmental substances         | <b>6AG1055-1MB00-7BA2</b> |
| <b>LOGO! AM2 RTD</b><br>12...24 V DC supply voltage,<br>2 analog inputs Pt100,<br>temperature range -50 °C to 200 °C<br><br>Extended temperature range and exposure to environmental substances            | <b>6AG1055-1MD00-7BA2</b> |
| <b>SIPLUS LOGO! AM2 AQ</b><br>24 V DC supply voltage,<br>2 analog outputs 0 to 10 V,<br>0/4 to 20 mA<br><br>Extended temperature range and exposure to environmental substances                            | <b>6AG1055-1MM00-7BA2</b> |
| <b>SIPLUS LOGO! DM16 24R</b><br>24 V DC supply voltage,<br>8 digital inputs 24 V DC,<br>8 relay outputs 5 A<br><br>Extended temperature range and exposure to environmental substances                     | <b>6AG1055-1NB10-7BA2</b> |
| <b>Accessories</b>   |                           |
| <b>LOGO!Soft Comfort V8</b><br>For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD   | <b>6ED1058-0BA08-0YA1</b> |
| <b>Front panel mounting kit</b><br>Width 8 U, with keys  | <b>6AG1057-1AA00-0AA2</b> |

**LOGO! logic module**

## LOGO! basic and expansion modules

**SIPLUS LOGO! expansion modules****Technical specifications**

| Article number  | <b>6AG1055-1CB00-7BA2</b>   | <b>6AG1055-1HB00-7BA2</b>   | <b>6AG1055-1MB00-7BA2</b>   |
|---|---|---|---|
| Based on  | <b>6ED1055-1CB00-0BA2</b><br>SIPLUS LOGO! DM8 24 V8   | <b>6ED1055-1HB00-0BA2</b><br>SIPLUS LOGO! DM8 24R V8  | <b>6ED1055-1MB00-0BA2</b><br>SIPLUS LOGO! DM8 12/24R V8   |
| <b>Ambient conditions</b>   |   |   |   |
| <b>Ambient temperature during operation</b>   |   |   |   |
| • min.  | -40 °C; = Tmin; Startup @ -25 °C  | -40 °C; = Tmin; Startup @ -25 °C  | -40 °C; = Tmin; Startup @ -25 °C  |
| • max.  | 70 °C; Tmax; Tmax > +55 °C<br>max. load 0,2 A per output  | 70 °C; = Tmax; Tmax > +55 °C<br>max. load 3 A per relay or<br>max. total current 10 A   | 70 °C; = Tmax; Tmax > +55 °C<br>max. load 3 A per relay or<br>max. total current 10 A   |
| • At cold restart, min.   | -25 °C; incl. condensation / frost<br>permitted (no commissioning under<br>condensation conditions)   | -25 °C; incl. condensation / frost<br>permitted (no commissioning under<br>condensation conditions)   | -25 °C; incl. condensation / frost<br>permitted (no commissioning under<br>condensation conditions)   |
| <b>Altitude during operation relating to sea level</b>  |   |   |   |
| • Installation altitude above sea level, max.   | 5 000 m   | 5 000 m   | 5 000 m   |
| • Ambient air temperature-barometric pressure-altitude  | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) | Tmin ... Tmax at<br>1 140 hPa ... 795 hPa<br>(-1 000 m ... +2 000 m) //<br>Tmin ... (Tmax - 10 K) at<br>795 hPa ... 658 hPa<br>(+2 000 m ... +3 500 m) //<br>Tmin ... (Tmax -20 K) at<br>658 hPa ... 540 hPa<br>(+3 500 m ... +5 000 m) |
| <b>Relative humidity</b>  |   |   |   |
| • With condensation, tested in accordance with IEC 60068-2-38, max.   | 100 %; RH incl. condensation / frost<br>(no commissioning in bedewed state),<br>horizontal installation   | 100 %; RH incl. condensation / frost<br>(no commissioning in bedewed state),<br>horizontal installation   | 100 %; RH incl. condensation / frost<br>(no commissioning in bedewed state),<br>horizontal installation   |
| <b>Resistance</b>   |   |   |   |
| <b>Coolants and lubricants</b>  |   |   |   |
| - Resistant to commercially available coolants and lubricants   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   |
| <b>Use in stationary industrial systems</b>   |   |   |   |
| - to biologically active substances according to EN 60721-3-3   | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request  |
| - to chemically active substances according to EN 60721-3-3   | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  |
| - to mechanically active substances according to EN 60721-3-3   | Yes; Class 3S4 incl. sand, dust, *  | Yes; Class 3S4 incl. sand, dust, *  | Yes; Class 3S4 incl. sand, dust, *  |
| <b>Use on ships/at sea</b>  |   |   |   |
| - to biologically active substances according to EN 60721-3-6   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request   |
| - to chemically active substances according to EN 60721-3-6   | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *  |
| - to mechanically active substances according to EN 60721-3-6   | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *  | Yes; Class 6S3 incl. sand, dust; *  |
| <b>Usage in industrial process technology</b>   |   |   |   |
| - Against chemically active substances acc. to EN 60654-4   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   | Yes; Class 3 (excluding trichlorethylene)   |
| - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04                | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)   | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)   | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)   |
| <b>Remark</b>   |   |   |   |
| - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  |

**Technical specifications**

| Article number  | <b>6AG1055-1CB00-7BA2</b>  | <b>6AG1055-1HB00-7BA2</b>  | <b>6AG1055-1MB00-7BA2</b>                                  |
|---|--|--|--|
| Based on  | <b>6ED1055-1CB00-0BA2</b>  | <b>6ED1055-1HB00-0BA2</b>  | <b>6ED1055-1MB00-0BA2</b>                                  |
|   | SIPLUS LOGO! DM8 24 V8   | SIPLUS LOGO! DM8 24R V8  | SIPLUS LOGO! DM8 12/24R V8                                 |
| <b>Conformal coating</b>  |  |  |  |
| <ul style="list-style-type: none"> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Protection against fouling acc. to EN 60664-3</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> | Yes; Class 2 for high reliability  | Yes; Class 2 for high reliability  | Yes; Class 2 for high reliability                          |
|   | Yes; Type 1 protection   | Yes; Type 1 protection   | Yes; Type 1 protection                                     |
|   | Yes; Discoloration of coating possible during service life   | Yes; Discoloration of coating possible during service life   | Yes; Discoloration of coating possible during service life |
|   | Yes; Conformal coating, Class A  | Yes; Conformal coating, Class A  | Yes; Conformal coating, Class A                            |
| Article number  | <b>6AG1055-1FB00-7BA2</b>  | <b>6AG1055-1NB10-7BA2</b>  |  |
| Based on  | <b>6ED1055-1FB00-0BA2</b>  | <b>6ED1055-1NB10-0BA2</b>  |  |
|   | SIPLUS LOGO! DM8 230R V8   | SIPLUS LOGO! DM16 24R V8   |  |
| <b>Ambient conditions</b>   |  |  |  |
| <b>Ambient temperature during operation</b>   |  |  |  |
| <ul style="list-style-type: none"> <li>min.</li> <li>max.</li> <li>At cold restart, min.</li> </ul>   | -40 °C; = Tmin; Startup @ -25 °C<br>70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A<br>-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)                 | -40 °C; = Tmin; Startup @ -25 °C<br>70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay   |  |
| <b>Altitude during operation relating to sea level</b>  |  |  |  |
| <ul style="list-style-type: none"> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure-altitude</li> </ul>   | 2 000 m<br>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)  | 5 000 m<br>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)           |  |
| <b>Relative humidity</b>  |  |  |  |
| <ul style="list-style-type: none"> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>   | 100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation  | 100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation  |  |
| <b>Resistance</b>   |  |  |  |
| <b>Coolants and lubricants</b>  |  |  |  |
| <ul style="list-style-type: none"> <li>Resistant to commercially available coolants and lubricants</li> </ul>   | Yes; Incl. diesel and oil droplets in the air  | Yes; Incl. diesel and oil droplets in the air  |  |
| <b>Use in stationary industrial systems</b>   |  |  |  |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>   | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request<br>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *<br>Yes; Class 3S4 incl. sand, dust, * | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request<br>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *<br>Yes; Class 3S4 incl. sand, dust, * |  |
| <b>Use on ships/at sea</b>  |  |  |  |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-6</li> <li>to chemically active substances according to EN 60721-3-6</li> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>   | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request<br>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *<br>Yes; Class 6S3 incl. sand, dust; *                      | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request<br>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *<br>Yes; Class 6S3 incl. sand, dust; *                      |  |
| <b>Usage in industrial process technology</b>   |  |  |  |
| <ul style="list-style-type: none"> <li>Against chemically active substances acc. to EN 60654-4</li> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04</li> </ul>   | Yes; Class 3 (excluding trichlorethylene)<br>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)     | Yes; Class 3 (excluding trichlorethylene)<br>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)     |  |
| <b>Remark</b>   |  |  |  |
| <ul style="list-style-type: none"> <li>Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>   | * The supplied plug covers must remain in place over the unused interfaces during operation!   | * The supplied plug covers must remain in place over the unused interfaces during operation!   |  |



**LOGO! logic module**

## LOGO! basic and expansion modules

**SIPLUS LOGO! expansion modules****Technical specifications**

| Article number  | <b>6AG1055-1FB00-7BA2</b>   | <b>6AG1055-1NB10-7BA2</b>   |
|---|---|---|
| Based on  | <b>6ED1055-1FB00-0BA2</b><br>SIPLUS LOGO! DM8 230R V8   | <b>6ED1055-1NB10-0BA2</b><br>SIPLUS LOGO! DM16 24R V8   |
| <b>Conformal coating</b>  |   |   |
| <ul style="list-style-type: none"> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Protection against fouling acc. to EN 60664-3</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> | <ul style="list-style-type: none"> <li>Yes; Class 2 for high reliability</li> <li>Yes; Type 1 protection</li> <li>Yes; Discoloration of coating possible during service life</li> <li>Yes; Conformal coating, Class A</li> </ul>  | <ul style="list-style-type: none"> <li>Yes; Class 2 for high reliability</li> <li>Yes; Type 1 protection</li> <li>Yes; Discoloration of coating possible during service life</li> <li>Yes; Conformal coating, Class A</li> </ul>  |
| Article number  | <b>6AG1055-1MA00-7BA2</b>   | <b>6AG1055-1MD00-7BA2</b>   |
| Based on  | <b>6ED1055-1MA00-0BA2</b><br>SIPLUS LOGO! AM2 V8  | <b>6ED1055-1MD00-0BA2</b><br>SIPLUS LOGO! AM2 RTD   |
| <b>Ambient conditions</b>   |   |   |
| <b>Ambient temperature during operation</b>   |   |   |
| <ul style="list-style-type: none"> <li>min.</li> <li>max.</li> <li>At cold restart, min.</li> </ul>   | <ul style="list-style-type: none"> <li>-40 °C; = Tmin; Startup @ -25 °C</li> <li>70 °C; = Tmax</li> <li>-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)</li> </ul>  | <ul style="list-style-type: none"> <li>-40 °C; = Tmin; Startup @ -25 °C</li> <li>70 °C; = Tmax</li> <li>-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)</li> </ul>  |
| <b>Altitude during operation relating to sea level</b>  |   |   |
| <ul style="list-style-type: none"> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure-altitude</li> </ul>   | <ul style="list-style-type: none"> <li>5 000 m</li> <li>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) //</li> <li>Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) //</li> <li>Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)</li> </ul>  | <ul style="list-style-type: none"> <li>5 000 m</li> <li>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) //</li> <li>Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) //</li> <li>Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)</li> </ul>  |
| <b>Relative humidity</b>  |   |   |
| <ul style="list-style-type: none"> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>   | 100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation   | 100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation   |
| <b>Resistance</b>   |   |   |
| <b>Coolants and lubricants</b>  |   |   |
| <ul style="list-style-type: none"> <li>Resistant to commercially available coolants and lubricants</li> </ul>   | Yes; Incl. diesel and oil droplets in the air   | Yes; Incl. diesel and oil droplets in the air   |
| <b>Use in stationary industrial systems</b>   |   |   |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul> | <ul style="list-style-type: none"> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul> |
| <b>Use on ships/at sea</b>  |   |   |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-6</li> <li>to chemically active substances according to EN 60721-3-6</li> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</li> <li>Yes; Class 6C3 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 6S3 incl. sand, dust; *</li> </ul>                      | <ul style="list-style-type: none"> <li>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</li> <li>Yes; Class 6C3 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 6S3 incl. sand, dust; *</li> </ul>                      |
| <b>Usage in industrial process technology</b>   |   |   |
| <ul style="list-style-type: none"> <li>Against chemically active substances acc. to EN 60654-4</li> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 3 (excluding trichlorethylene)</li> <li>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</li> </ul>              | <ul style="list-style-type: none"> <li>Yes; Class 3 (excluding trichlorethylene)</li> <li>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</li> </ul>              |
| <b>Remark</b>   |   |   |
| <ul style="list-style-type: none"> <li>Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>   | * The supplied plug covers must remain in place over the unused interfaces during operation!  | * The supplied plug covers must remain in place over the unused interfaces during operation!  |



**Technical specifications**

| Article number  | <b>6AG1055-1MA00-7BA2</b>   | <b>6AG1055-1MD00-7BA2</b>   |  |
|---|---|---|--|
| Based on  | <b>6ED1055-1MA00-0BA2</b><br>SIPLUS LOGO! AM2 V8  | <b>6ED1055-1MD00-0BA2</b><br>SIPLUS LOGO! AM2 RTD   |  |
| <b>Conformal coating</b>  |   |   |  |
| <ul style="list-style-type: none"> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Protection against fouling acc. to EN 60664-3</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> | <ul style="list-style-type: none"> <li>Yes; Class 2 for high reliability</li> <li>Yes; Type 1 protection</li> <li>Yes; Discoloration of coating possible during service life</li> <li>Yes; Conformal coating, Class A</li> </ul>  | <ul style="list-style-type: none"> <li>Yes; Class 2 for high reliability</li> <li>Yes; Type 1 protection</li> <li>Yes; Discoloration of coating possible during service life</li> <li>Yes; Conformal coating, Class A</li> </ul>  |  |
| Article number  | <b>6AG1055-1MM00-7BA2</b>   | Article number  | <b>6AG1055-1MM00-7BA2</b>  |
| Based on  | <b>6ED1055-1MM00-0BA2</b><br>SIPLUS LOGO! AM2 AQ V8   | Based on  | <b>6ED1055-1MM00-0BA2</b><br>SIPLUS LOGO! AM2 AQ V8  |
| <b>Ambient conditions</b>   |   | <b>Usage in industrial process technology</b>   |  |
| <b>Ambient temperature during operation</b>   |   | <ul style="list-style-type: none"> <li>Against chemically active substances acc. to EN 60654-4</li> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 3 (excluding trichlorethylene)</li> <li>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</li> </ul> |
| <ul style="list-style-type: none"> <li>min.</li> <li>max.</li> <li>At cold restart, min.</li> </ul>   | <ul style="list-style-type: none"> <li>-40 °C; = Tmin; Startup @ -25 °C</li> <li>70 °C; = Tmax</li> <li>-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)</li> </ul>  | <b>Remark</b>   | <ul style="list-style-type: none"> <li>Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>  |
| <b>Altitude during operation relating to sea level</b>  |   | <b>Conformal coating</b>  |  |
| <ul style="list-style-type: none"> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure-altitude</li> </ul>   | <ul style="list-style-type: none"> <li>5 000 m</li> <li>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)</li> </ul>                    | <ul style="list-style-type: none"> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Protection against fouling acc. to EN 60664-3</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> | <ul style="list-style-type: none"> <li>Yes; Class 2 for high reliability</li> <li>Yes; Type 1 protection</li> <li>Yes; Discoloration of coating possible during service life</li> <li>Yes; Conformal coating, Class A</li> </ul>   |
| <b>Relative humidity</b>  |   | <b>Dimensions</b>   |  |
| <ul style="list-style-type: none"> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>   | <ul style="list-style-type: none"> <li>100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation</li> </ul>   | Width   | 35.5 mm  |
| <b>Resistance</b>   |   | Height  | 90 mm  |
| <b>Coolants and lubricants</b>  |   | Depth   | 58 mm  |
| <ul style="list-style-type: none"> <li>Resistant to commercially available coolants and lubricants</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Incl. diesel and oil droplets in the air</li> </ul>   |   |  |
| <b>Use in stationary industrial systems</b>   |   |   |  |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul> |   |  |
| <b>Use on ships/at sea</b>  |   |   |  |
| <ul style="list-style-type: none"> <li>to biologically active substances according to EN 60721-3-6</li> <li>to chemically active substances according to EN 60721-3-6</li> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>   | <ul style="list-style-type: none"> <li>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</li> <li>Yes; Class 6C3 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 6S3 incl. sand, dust; *</li> </ul>                      |   |  |

## LOGO! logic module

LOGO! communications modules

### LOGO! communications modules

#### Overview

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- Communications modules for connecting LOGO! Modular to different bus systems.

Note on compatibility:

| Communications module               | Can be used with: |
|-------------------------------------|-------------------|
| LOGO! CMK2000 communications module | LOGO! 8           |
| LOGO! CIM                           | LOGO! 8           |
| LOGO! CSM 12/24                     | LOGO! 7/8         |
| LOGO! CMR200                        | LOGO! 8           |
| LOGO! CMR2040                       | LOGO! 8           |

**Overview**


- Expansion module for LOGO! 8 basic versions
- For integrating LOGO! 8 in KNX installations
- With 24 digital inputs, 20 digital outputs as well as 8 analog inputs and outputs for processing process signals via KNX.

**Ordering data**
**Article No.**
**LOGO! CMK2000 communications module**
**6BK1700-0BA20-0AA0**

For integrating LOGO! 8 in the KNX building system bus, max. 50 communication objects can be configured;  
 RJ45 port for Ethernet;  
 supply voltage 24 V DC/40 mA

**Technical specifications**

|                                   |  |
|-----------------------------------|--|
| Article number                    | <b>6BK1700-0BA20-0AA0</b><br>LOGO! CMK2000 |
| <b>General information</b>        |  |
| Firmware version                  |  |
| • FW update possible              | Yes  |
| <b>Installation type/mounting</b> |  |
| Mounting                          | on 35 mm DIN rail,<br>4 spacing units wide |
| <b>Supply voltage</b>             |  |
| Rated value (DC)                  | 24 V                                       |
| <b>Input current</b>              |  |
| Current consumption, max.         | 0.04 A                                     |
| <b>Power loss</b>                 |  |
| Power loss, max.                  | 1.1 W                                      |
| <b>Memory</b>                     |  |
| Flash                             | Yes  |
| <b>Time of day</b>                |  |
| <b>Clock synchronization</b>      |  |
| • supported                       | Yes  |

|   |  |
|---|--|
| Article number  | <b>6BK1700-0BA20-0AA0</b><br>LOGO! CMK2000   |
| <b>Interfaces</b>                                       |  |
| Number of industrial Ethernet interfaces                | 1; Ethernet, 1 port, RJ45  |
| Number of other interfaces                              | 1; EIB/KNX   |
| Transmission rate, max.                                 | 100 Mbit/s over Ethernet,<br>9 600 bit/s over KNX  |
| Design of plug-in connection                            | KNX terminal 0.6 mm <sup>2</sup> - 1.0 mm <sup>2</sup>   |
| <b>Protocols</b>  |  |
| EIB/KNX   | Yes  |
| <b>Web server</b>                                       |  |
| • supported   | Yes  |
| <b>communication functions / header</b>                 |  |
| <b>S7 basic communication</b>                           |  |
| • supported   | No   |
| <b>LOGO! communication</b>                              |  |
| • supported   | Yes  |
| <b>Interrupts/diagnostics/status information</b>        |  |
| <b>Diagnostics indication LED</b>                       |  |
| • RUN/STOP LED  | Yes  |
| <b>EMC</b>  |  |
| <b>Emission of radio interference acc. to EN 55 011</b> |  |
| • Limit class B, for use in residential areas           | Yes; In accordance with EN 61000-6-3   |
| <b>Degree and class of protection</b>                   |  |
| IP degree of protection                                 | IP20   |
| <b>Standards, approvals, certificates</b>               |  |
| CE mark   | Yes  |
| CSA approval  | Yes  |
| UL approval   | Yes  |
| cULus   | Yes  |
| FM approval   | No   |
| RCM (formerly C-TICK)                                   | No   |
| KC approval   | Yes  |
| EAC (formerly Gost-R) according to VDE 0631             | Yes  |
| Marine approval   | No   |
| <b>Ambient conditions</b>                               |  |
| <b>Ambient temperature during operation</b>             |  |
| • min.  | 0 °C   |
| • max.  | 55 °C  |
| <b>Relative humidity</b>                                |  |
| • Operation, max.                                       | 95 %   |
| <b>connection method / header</b>                       |  |
| Design of electrical connection for supply voltage      | 2 screw-type terminals:<br>L+, M 0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup><br>Screw-type terminal:<br>FE 0.5 mm <sup>2</sup> ... 6.0 mm <sup>2</sup> |
| <b>Dimensions</b>                                       |  |
| Width   | 71.5 mm; 4U  |
| Height  | 90 mm  |
| Depth   | 58.5 mm  |
| <b>Weights</b>  |  |
| Weight, approx.   | 0.14 kg  |

## LOGO! logic module

LOGO! communications modules

### LOGO! CIM (Communication Interface Module)

#### Overview



- Expansion module for LOGO! 8 basic versions
- For transmitting and receiving SMS and transmission of data from LOGO! 8.3 basic units to the AWS Cloud
- The built-in ModbusRTU interface supports ModbusRTU participants with RS232, RS485 and RS422 interface
- With an integrated GNSS receiver for tracking and transmitting the position

#### Note

For wireless operation, the following additional components are required (not included in the scope of delivery of LOGO! CIM):

- Wireless engine
- Antennas
- Antenna connecting cable between wireless engine and antenna port (the corresponding products are recommended in the documentation)
- SIM card with activated data transmission

#### Ordering data

#### Article No.

##### Communications module LOGO! CIM (Communication Interface Module)

For transmitting and receiving SMS and transmission of data to the AWS Cloud

**6ED1055-5MC08-0BA1**

#### Technical specifications

|                                   |  |
|-----------------------------------|--|
| Article number                    | <b>6ED1055-5MC08-0BA1</b><br>LOGO! CIM     |
| <b>General information</b>        |  |
| Firmware version                  | V1.0.0                                     |
| • FW update possible              | Yes  |
| <b>Installation type/mounting</b> |  |
| Mounting                          | on 35 mm DIN rail,<br>4 spacing units wide |
| <b>Supply voltage</b>             |  |
| Rated value (DC)                  | 24 V; 12 V DC, 12/24 V AC/DC               |
| • 12 V DC                         | Yes  |
| • 24 V DC                         | Yes  |
| Rated value (AC)                  |  |
| • 24 V AC                         | No   |
| <b>Input current</b>              |  |
| Current consumption, max.         | 1 A  |

|   |  |
|---|--|
| Article number  | <b>6ED1055-5MC08-0BA1</b><br>LOGO! CIM |
| <b>Memory</b>   |  |
| Flash   | Yes; 2 MB NOR flash                    |
| <b>Time of day</b>                                      |  |
| <b>Clock synchronization</b>                            |  |
| • supported   | Yes                                    |
| <b>Interfaces</b>                                       |  |
| Number of industrial Ethernet interfaces                | 4; 4 ports (switch)                    |
| Number of other interfaces                              | 1; mini PCIe interface for 4G module   |
| <b>Protocols</b>  |  |
| <b>Web server</b>                                       |  |
| • supported   | Yes                                    |
| <b>communication functions / header</b>                 |  |
| <b>S7 basic communication</b>                           |  |
| • supported   | Yes                                    |
| <b>LOGO! communication</b>                              |  |
| • supported   | Yes                                    |
| <b>Interrupts/diagnostics/status information</b>        |  |
| <b>Diagnostics indication LED</b>                       |  |
| • RUN/STOP LED  | Yes                                    |
| <b>EMC</b>  |  |
| <b>Emission of radio interference acc. to EN 55 011</b> |  |
| • Limit class B, for use in residential areas           | Yes                                    |
| <b>Standards, approvals, certificates</b>               |  |
| CE mark   | Yes                                    |
| UL approval   | Yes                                    |
| cULus   | Yes                                    |
| FM approval   | Yes                                    |
| RCM (formerly C-TICK)                                   | Yes                                    |
| KC approval   | Yes                                    |
| EAC (formerly Gost-R)                                   | Yes                                    |
| developed in accordance with IEC 61131                  | Yes                                    |
| according to VDE 0631                                   | No                                     |
| Marine approval   | No                                     |
| <b>Ambient conditions</b>                               |  |
| <b>Ambient temperature during operation</b>             |  |
| • min.  | -20 °C                                 |
| • max.  | 55 °C                                  |
| <b>Relative humidity</b>                                |  |
| • Operation, max.                                       | 95 %; no condensation                  |
| <b>Dimensions</b>                                       |  |
| Width   | 71.5 mm                                |
| Height  | 90 mm                                  |
| Depth   | 58.5 mm; without antenna sockets       |
| <b>Weights</b>  |  |
| Weight, approx.   | 200 g                                  |

**Overview**


The module is used to connect a LOGO! and up to three other nodes to an Industrial Ethernet network with 10/100 Mbps in an electrical linear, tree or star topology.

The essential features of the LOGO! CSM are:

- Unmanaged 4-port switch, of which one port is on the front for easy diagnostics access
- Two versions for the voltage ranges 12/24 V DC or 230 V AC/DC
- Problem-free connection using four RJ45 standard connectors
- Space-saving, optimized for connection to LOGO!
- Low-cost solution for implementing small, local Ethernet networks
- Stand-alone use for networking any Ethernet devices

**Ordering data**
**Article No.**
**LOGO! CSM compact switch module**

Unmanaged switch for connection of one LOGO! and up to three further stations on Industrial Ethernet with 10/100 Mbps; 4 x RJ45 ports; LED diagnostics, LOGO! module

- **LOGO! CSM12/24**  
external 12 V DC or 24 V DC power supply, for LOGO! ... 0BA7/... 0BA8

**6GK7177-1MA20-0AA0**
**Accessories**
**IE TP cord RJ45/RJ45**

TP cable 4 x 2 with 2 RJ45 plugs

- 0.5 m
- 1 m
- 2 m
- 6 m
- 10 m

**6XV1870-3QE50**  
**6XV1870-3QH10**  
**6XV1870-3QH20**  
**6XV1870-3QH60**  
**6XV1870-3QN10**
**IE FC RJ45 outlet**

For connecting Industrial Ethernet FC cables and TP cords; graduated prices for 10 and 50 units or more

**6GK1901-1FC00-0AA0**

## LOGO! logic module

LOGO! communications modules

### LOGO! CSM unmanaged

#### Technical specifications

|   |                           |
|---|---------------------------|
| Article number  | <b>6GK7177-1MA20-0AA0</b> |
| Product type designation  | LOGO! CSM 12/24           |
| <b>transfer rate</b>  |                           |
| transfer rate   | 10 Mbit/s, 100 Mbit/s     |
| <b>interfaces for communication maximum configuration for modular devices</b> |                           |
| number of electrical ports maximum  | 4                         |
| <b>interfaces for communication integrated</b>                                |                           |
| number of electrical connections  |                           |
| • for network components or terminal equipment                                | 4                         |
| number of 100 Mbit/s SC ports   |                           |
| • for multimode   | 0                         |
| number of 1000 Mbit/s LC ports  |                           |
| • for multimode   | 0                         |
| • for single mode (LD)  | 0                         |
| <b>interfaces other</b>   |                           |
| number of electrical connections  |                           |
| • for power supply  | 1                         |
| type of electrical connection   |                           |
| • for power supply  | 3-pole terminal block     |
| <b>supply voltage, current consumption, power loss</b>                        |                           |
| type of voltage 1 of the supply voltage                                       | DC                        |
| • supply voltage 1 rated value  | 24 V                      |
| • power loss [W] 1 rated value  | 1.5 W                     |
| • supply voltage 1 rated value  | 10.2 ... 30.2 V           |
| • consumed current 1 maximum  | 0.15 A                    |
| • type of electrical connection 1 for power supply                            | 3-pole terminal block     |
| • product component 1 fusing at power supply input                            | Yes                       |
| <b>ambient conditions</b>   |                           |
| ambient temperature   |                           |
| • during operation  | 0 ... 55 °C               |
| • during storage  | -40 ... +70 °C            |
| • during transport  | -40 ... +70 °C            |
| relative humidity   |                           |
| • at 25 °C without condensation during operation maximum                      | 90 %                      |
| protection class IP   | IP20                      |
| <b>design, dimensions and weights</b>   |                           |
| design  | LOGO! module              |
| width   | 71.5 mm                   |
| height  | 90 mm                     |
| depth   | 58.2 mm                   |
| net weight  | 0.15 kg                   |
| fastening method  |                           |
| • 35 mm top hat DIN rail mounting   | Yes                       |
| • wall mounting   | Yes                       |
| • S7-300 rail mounting  | No                        |
| • S7-1500 rail mounting   | No                        |

|  |   |
|--|---|
| Article number   | <b>6GK7177-1MA20-0AA0</b>   |
| Product type designation   | LOGO! CSM 12/24   |
| <b>product functions management, configuration, engineering</b>    |   |
| product function   |   |
| • multiport mirroring  | No  |
| product function switch-managed                                    | No  |
| <b>standards, specifications, approvals</b>                        |   |
| standard   |   |
| • for safety from CSA and UL                                       | UL 508, CSA C22.2 No. 142   |
| reference code   |   |
| • according to IEC 81346-2   | KF  |
| • according to IEC 81346-2:2019                                    | KFE   |
| <b>standards, specifications, approvals CE</b>                     |   |
| certificate of suitability CE marking                              | Yes   |
| <b>standards, specifications, approvals hazardous environments</b> |   |
| standard for hazardous zone  |   |
| • from CSA and UL  | ATEX: EN 60079-0 : 2009, EN 60079-15 :2010 (Directive 94/9/EC), IECEx: IEC 60079-0 :2011, IEC 60079-15 :2010<br>Haz-Loc ANSI/ISA 12.12.01: CL 1, Div2, Group A,B,C,D T4, CL I, Zone 2, Group IIC, T4, Ta=55°C |
| certificate of suitability   |   |
| • CCC for hazardous zone according to GB standard                  | Yes   |
| <b>standards, specifications, approvals other</b>                  |   |
| certificate of suitability   |   |
| • C-Tick   | Yes   |
| • KC approval  | No  |
| <b>standards, specifications, approvals marine classification</b>  |   |
| Marine classification association                                  |   |
| • American Bureau of Shipping Europe Ltd. (ABS)                    | No  |
| • French marine classification society (BV)                        | No  |
| • Det Norske Veritas (DNV)   | No  |
| • Germanische Lloyd (GL)   | No  |
| • Lloyds Register of Shipping (LRS)                                | No  |
| • Nippon Kaiji Kyokai (NK)   | No  |
| • Polski Rejestr Statkow (PRS)                                     | No  |

#### Overview



LOGO! CMR in combination with the LOGO! logic module is a cost-efficient communication system suitable for monitoring and controlling distributed plants and systems via text message or email.

LOGO! CMR can send text messages or emails to predefined mobile network numbers as well as receive text messages from predefined mobile network numbers.

Sending a text message/email can be initiated by events in the LOGO! basic module as well as by the two digital alarm inputs of the LOGO! CMR. The values in the LOGO! logic module can be directly influenced by receiving a text message.

The LOGO! CMR offers convenient commissioning and diagnostics in web-based management via local and/or secure remote access.

The two digital outputs can also be switched remotely by incoming text messages/emails.

LOGO! CMR determines the current position of the module based on the GPS signal received by the GPS antenna. In addition, the LOGO! 8 logic module can be time-synchronized by means of the time included in the GPS signal. Determination of time by means of an NTP server or from the data of the mobile network provider offers more options for synchronization of the LOGO! BM with the current time of day.

#### Product version:

- LOGO! CMR2020 for use in GSM/GPRS mobile wireless networks
- LOGO! CMR2040 for use in LTE mobile wireless networks

Warning! The country-specific mobile network approvals must be observed:

DE: <http://www.siemens.de/mobilfunkzulassungen>

EN: <http://www.siemens.com/mobilenetwork-approvals>

#### Ordering data

#### Article No.

#### LOGO! CMR communications module radio

Communications modules for connection of LOGO! 8 to GSM/GPRS or LTE network;  
 1x RJ45 port for Industrial Ethernet connection;  
 2x digital input;  
 2x digital output;  
 read/write access to LOGO! tags;  
 possible to send/receive text messages;  
 GPS position detection;  
 time-of-day synchronization/forwarding with real-time clock;  
 configuration and diagnostics via web interface;  
 Please note country approvals under:  
<http://www.siemens.com/mobilenetwork-approvals>

#### LOGO! CMR2020

For connecting LOGO! 8 to a GSM/GPRS network;

**6GK7142-7BX00-0AX0**

#### LOGO! CMR2040

For connecting LOGO! 8 to an LTE network;

**6GK7142-7EX00-0AX0**

#### Accessories

#### Mobile wireless antennas

#### ANT794-4MR

For indoor and outdoor use;  
 5 m connecting cable permanently connected to antenna;  
 SMA plug; incl. mounting bracket, screws, wall plugs

**6NH9860-1AA00**

#### ANT896-4M

Rod antenna for direct mounting on device; SMA male connector

**6GK5896-4MA00-0AA3**

#### ANT896-4ME

Cylindrical antenna for remote installation, e.g. on a control cabinet;  
 N-Connect female connector

**6GK5896-4ME00-0AA0**

#### GPS antenna

#### ANT895-6ML

GPS/Glonass antenna for remote indoor and outdoor installation, magnet or screw mounting, 30 cm cable with N-Connect female connector

**6GK5895-6ML00-0AA0**

#### Antenna adapter cable

N-Connect/SMA male/male flexible connecting cable, pre-assembled, connecting cable;  
 suitable for 0 ... 6 GHz, IP68

- 0.3 m
- 1 m
- 2 m
- 5 m

**6XV1875-5LE30**  
**6XV1875-5LH10**  
**6XV1875-5LH20**  
**6XV1875-5LH50**



**LOGO! logic module**

LOGO! communications modules

**LOGO! CMR (wireless communication)**

2

**Ordering data****Article No.****Article No.****IWLAN RCoax/  
antenna N-Connect male/male  
flexible connection cable**

Flexible connecting cable for connecting an RCoax cable or antenna to a SCALANCE W700 access point with N-Connect connectors; pre-assembled with two N-Connect male connectors; suitable from 0 ... 6 GHz, IP68

- 1 m
- 2 m
- 5 m
- 10 m

**6XV1875-5AH10**  
**6XV1875-5AH20**  
**6XV1875-5AH50**  
**6XV1875-5AN10**

**Cabinet bushing**

IWLAN RCOAX N-Connect/ N-Connect female/female panel feedthrough;  
Control cabinet feedthrough for wall thickness max. 4.5 mm; 2.4 GHz and 5 GHz, suitable from 0 ... 6 GHz, IP67

**6GK5798-2PP00-2AA6**

**LP798-2N lightning protector**

Lightning protector with N/N female/female connector for ANT 790 antennas, IP67 (-40 to +85 °C), frequency range: 0 ... 6 GHz

**6GK5798-2LP00-2AA6**

**Patch cable****IE TP cord RJ45/RJ45**

TP cable 4 x 2 with 2 RJ45 plugs

- 0.5 m
- 1 m
- 2 m
- 6 m
- 10 m

**6XV1870-3QE50**  
**6XV1870-3QH10**  
**6XV1870-3QH20**  
**6XV1870-3QH60**  
**6XV1870-3QN10**

**IE FC RJ45 outlet**

For connection of Industrial Ethernet FC cables and TP cords; graded prices from 10 and 50 units

**6GK1901-1FC00-0AA0**

**LOGO! CSM12/24**

Compact switch module for connecting a LOGO! (...0BA7/...0BA8) and up to 3 additional nodes to Industrial Ethernet; 12/24 V DC power supply

**6GK7177-1MA20-0AA0**

**Stainless steel enclosure in IP68  
degree of protection**

Stainless steel enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -60 to +135 °C; matte surface; cover with Pin Torx screws and padlock, 7 cable openings and opening for mobile wireless antenna prepared; please order the required quantity of cable glands and blanking plugs separately

**6NH3112-3BA00-1XX1**

**Aluminum enclosure in IP68  
degree of protection**

Aluminum enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -40 to +80 °C; cover with Pin Torx screws; 7 cable openings and opening for mobile wireless antenna prepared; please order the required quantity of cable glands and blanking plugs separately

**6NH3112-3BA00-1XX3**

**Cable gland PG16 F for IP68  
enclosure**

Cable gland, M16, IP68, -40 to +100 °C; nickel-plated brass; suitable for enclosure with article numbers 6NH3112-3BA00-1x X1 and 6NH3112-3BA00-1x X3, pack quantity = 2 units

**6NH3112-3BA00-1XX4**

**Blanking plug M16 for IP68  
enclosure**

Blanking plug, M16, IP68, -40 to +100 °C; nickel-plated brass; suitable for enclosure with article numbers 6NH3112-3BA00-1x X1 and 6NH3112-3BA00-1x X3, pack quantity = 2 units

**6NH3112-3BA00-1XX5**

**Technical specifications**

| Article number  | <b>6GK7142-7BX00-0AX0</b>                | <b>6GK7142-7EX00-0AX0</b>                  |
|---|--|--|
| Product type designation                                    | CMR2020                                  | CMR2040                                    |
| <b>transfer rate</b>  |  |  |
| transfer rate   |  |  |
| • at the 1st interface                                      | 10 ... 100 Mbit/s                        | 10 ... 100 Mbit/s                          |
| • for GPRS transmission                                     |  |  |
| - with downlink maximum                                     | 80 kbit/s                                | 85.6 kbit/s                                |
| - with uplink maximum                                       | 40 kbit/s                                | 85.6 kbit/s                                |
| • for LTE transmission                                      |  |  |
| - with downlink maximum                                     |  | 100 Mbit/s                                 |
| - with uplink maximum                                       |  | 50 Mbit/s                                  |
| <b>interfaces</b>   |  |  |
| number of interfaces according to Industrial Ethernet       | 1  | 1  |
| number of electrical connections                            |  |  |
| • at the 1st interface according to Industrial Ethernet     | 1  | 1  |
| • for external antenna(s)                                   | 2  | 2  |
| • for power supply  | 1  | 1  |
| number of slots   |  |  |
| • for SIM cards   | 1  | 1  |
| • for memory cards  | 1  | 1  |
| type of electrical connection                               |  |  |
| • at the 1st interface according to Industrial Ethernet     | RJ45 port                                | RJ45 port                                  |
| type of electrical connection                               |  |  |
| • for external antenna(s)                                   | SMA socket (50 ohms)                     | SMA socket (50 ohms)                       |
| • for power supply  | 3-pole terminal block                    | 3-pole terminal block                      |
| type of antenna   |  |  |
| • at connection 1 connectable                               | GPS Antenna                              | GPS Antenna                                |
| • at connection 2 connectable                               | Mobile radio antenna (GPRS/GSM)          | Mobile radio antenna (GPRS/GSM, UMTS, LTE) |
| wire length of antenna wire maximum                         | 15 m                                     | 15 m                                       |
| slot version  |  |  |
| • for SIM card  | Standard                                 | Standard                                   |
| • of the memory card  | microSD                                  | microSD                                    |
| storage capacity of the memory card maximum                 | 32 Gbyte                                 | 32 Gbyte                                   |
| performance class of the memory card minimum necessary      | Class 6                                  | Class 6                                    |
| type of file system type of file system                     | FAT32                                    | FAT32                                      |
| <b>signal inputs/outputs</b>                                |  |  |
| number of electrical connections for digital input signals  | 2  | 2  |
| type of electrical connection for digital input signals     | 3 pole terminal block                    | 3 pole terminal block                      |
| digital input version                                       | not galvanically isolated, not debounced | not galvanically isolated, not debounced   |
| input voltage at digital input                              |  |  |
| • with signal <0> at DC                                     | 0 ... 5 V                                | 0 ... 5 V                                  |
| • for signal <1> at DC                                      | 8.5 ... 24 V                             | 8.5 ... 24 V                               |
| input current at digital input for signal <1> maximum       | 5.5 mA                                   | 5.5 mA                                     |
| number of electrical connections for digital output signals | 2  | 2  |

**LOGO! logic module**

LOGO! communications modules

**LOGO! CMR (wireless communication)****Technical specifications**

| Article number   | <b>6GK7142-7BX00-0AX0</b>   | <b>6GK7142-7EX00-0AX0</b>   |
|--|---|---|
| Product type designation   | CMR2020   | CMR2040   |
| type of electrical connection for digital output signals   | 3 pole terminal block   | 3 pole terminal block   |
| digital output version   | transistor, not potential seperated   | transistor, not potential seperated   |
| output voltage at digital output   | 12 ... 24 V; Value of the actual supply voltage   | 12 ... 24 V; Value of the actual supply voltage   |
| <ul style="list-style-type: none"> <li>• for signal &lt;1&gt;</li> <li>• for signal &lt;0&gt;</li> </ul>   | 0 ... 5 V   | 0 ... 5 V   |
| output current at digital output for signal <1> maximum  | 0.3 A   | 0.3 A   |
| <b>wireless technology</b>   |   |   |
| type of mobile wireless service  |   |   |
| <ul style="list-style-type: none"> <li>• is supported SMS</li> <li>• is supported GPRS</li> <li>• note</li> </ul>  | Yes<br>Yes<br>GPRS (Multislot Class 10, Mobile Station Class B)   | Yes<br>Yes<br>LTE   |
| type of wireless network is supported  |   |   |
| <ul style="list-style-type: none"> <li>• GSM</li> <li>• UMTS</li> <li>• LTE</li> </ul>   | Yes<br>No<br>No   | Yes<br>Yes<br>Yes   |
| operating frequency for GSM transmission   | operating frequency for GSM transmission 850 MHz,<br>operating frequency for GSM transmission 900 MHz,<br>operating frequency for GSM transmission 1800 MHz,<br>operating frequency for GSM transmission 1900 MHz | operating frequency for GSM transmission 900 MHz,<br>operating frequency for GSM transmission 1800 MHz  |
| operating frequency with UMTS transmission   |   | operating frequency with UMTS transmission 850 MHz,<br>operating frequency with UMTS transmission 900 MHz,<br>operating frequency with UMTS transmission 2100 MHz |
| operating frequency for LTE transmission   |   | operating frequency for LTE transmission 800 MHz,<br>operating frequency for LTE transmission 1800 MHz,<br>operating frequency for LTE transmission 2600 MHz      |
| <b>supply voltage, current consumption, power loss</b>   |   |   |
| type of voltage of the supply voltage  | DC  | DC  |
| supply voltage external  | 12 ... 24 V   | 12 ... 24 V   |
| supply voltage external at DC  | 12 ... 24 V   | 12 ... 24 V   |
| supply voltage for GPS antenna maximum   | 3.8 V; at 5 mA: 3,575 V / at 10 mA: 3,35 V /<br>at 15 mA: 3,125 V   | 3.8 V; at 5 mA: 3,575 V / at 10 mA: 3,35 V /<br>at 15 mA: 3,125 V   |
| relative positive tolerance at DC at 24 V  | 20 %  | 20 %  |
| relative negative tolerance at DC at 12 V  | 10 %  | 10 %  |
| consumed current   |   |   |
| <ul style="list-style-type: none"> <li>• from external supply voltage at DC at 12 V maximum</li> <li>• from external supply voltage at DC at 24 V maximum</li> </ul> | 0.25 A<br>0.125 A   | 0.25 A<br>0.125 A   |
| output current for GPS antenna maximum   | 15 mA   | 15 mA   |
| power loss [W]   | 3 W   | 3 W   |
| <b>ambient conditions</b>  |   |   |
| ambient temperature  |   |   |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>   | -20 ... +70 °C<br>-40 ... +85 °C<br>-40 ... +85 °C  | -20 ... +70 °C<br>-40 ... +85 °C<br>-40 ... +85 °C  |
| relative humidity  |   |   |
| <ul style="list-style-type: none"> <li>• at 25 °C without condensation during operation maximum</li> </ul>   | 95 %  | 95 %  |
| protection class IP  | IP20  | IP20  |

**Technical specifications**

| Article number   | <b>6GK7142-7BX00-0AX0</b>  | <b>6GK7142-7EX00-0AX0</b>  |
|--|--|--|
| Product type designation   | CMR2020  | CMR2040  |
| <b>design, dimensions and weights</b>                                  |  |  |
| module format  | Compact module, for rail mounting  | Compact module, for rail mounting  |
| width  | 71.5 mm  | 71.5 mm  |
| height   | 90 mm  | 90 mm  |
| depth  | 58.2 mm  | 58.2 mm  |
| net weight   | 0.16 kg  | 0.16 kg  |
| fastening method   |  |  |
| • 35 mm top hat DIN rail mounting                                      | Yes  | Yes  |
| • wall mounting  | Yes  | Yes  |
| <b>product features, product functions, product components general</b> |  |  |
| product function   |  |  |
| • DynDNS client  | Yes  | Yes  |
| • no-ip.com client   | Yes  | Yes  |
| <b>performance data</b>  |  |  |
| number of possible connections to the LOGO! logic module               | 1  | 1  |
| number of users/telephone numbers/email addresses definable maximum    | 20   | 20   |
| number of user groups definable maximum                                | 10   | 10   |
| number of signals for monitoring or device control definable maximum   | 32   | 32   |
| number of events for monitoring definable maximum                      | 32   | 32   |
| number of actions definable maximum                                    | 32   | 32   |
| number of assignments definable maximum                                | 32   | 32   |
| number of alias SMS commands definable maximum                         | 20   | 20   |
| number of constants definable maximum                                  | 10   | 10   |
| <b>performance data IT functions</b>                                   |  |  |
| number of possible connections   |  |  |
| • as server by means of HTTP maximum                                   | 2  | 2  |
| • as server by means of HTTPS maximum                                  | 2; http and https can be combined (max. number of 2 connections cannot be exceeded). Max. one connection via https is possible on the mobile wireless interface. | 2; http and https can be combined (max. number of 2 connections cannot be exceeded). Max. one connection via https is possible on the mobile wireless interface. |
| • as email client maximum  | 1  | 1  |
| number of free texts for emails and SMS maximum                        | 20   | 20   |
| number of characters per free text for emails or SMS maximum           | 160  | 160  |
| <b>performance data teleservice</b>                                    |  |  |
| product function   |  |  |
| • remote firmware update   | Yes  | Yes  |
| • remote configuration   | Yes  | Yes  |
| <b>product functions management, configuration, engineering</b>        |  |  |
| configuration software   |  |  |
| • required   | Web interface  | Web interface  |
| <b>product functions diagnostics</b>                                   |  |  |
| product function web-based diagnostics                                 | Yes  | Yes  |

**LOGO! logic module**

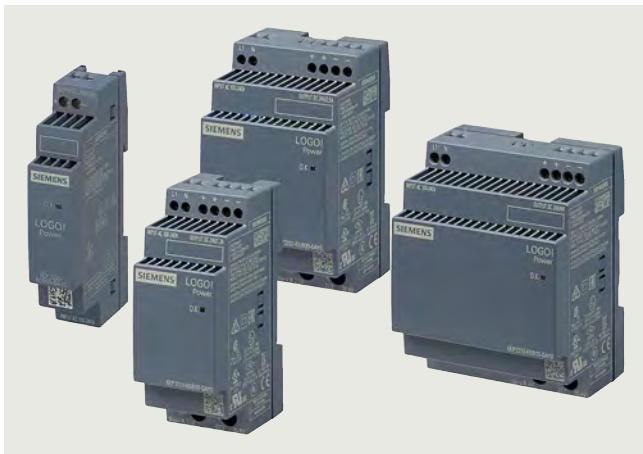
LOGO! communications modules

**LOGO! CMR (wireless communication)****Technical specifications**

| Article number   | <b>6GK7142-7BX00-0AX0</b>        | <b>6GK7142-7EX00-0AX0</b>        |
|--|----------------------------------|----------------------------------|
| Product type designation   | CMR2020                          | CMR2040                          |
| <b>product functions security</b>  |                                  |                                  |
| operating mode Virtual Private Network (VPN)                               | Yes; Open VPN Server in PSK mode | Yes; Open VPN Server in PSK mode |
| product function with VPN connection                                       | OpenVPN PSK                      | OpenVPN PSK                      |
| type of encryption algorithms with VPN connection                          | AES-128 CBC                      | AES-128 CBC                      |
| type of authentication with Virtual Private Network PSK                    | Yes                              | Yes                              |
| type of hashing algorithms with VPN connection                             | SHA-256                          | SHA-256                          |
| number of possible connections with VPN connection                         | 1                                | 1                                |
| product function   |                                  |                                  |
| • password protection for Web applications                                 | Yes                              | Yes                              |
| • password protection for VPN  | Yes                              | Yes                              |
| • encrypted data transmission  | Yes                              | Yes                              |
| • switch-off of non-required services                                      | Yes                              | Yes                              |
| • log file for unauthorized access   | Yes                              | Yes                              |
| <b>product functions time</b>  |                                  |                                  |
| product function pass on time synchronization                              | Yes                              | Yes                              |
| accuracy of the hardware real time clock per day maximum                   | 7.5 s                            | 7.5 s                            |
| time synchronization   |                                  |                                  |
| • from NTP-server  | Yes                              | Yes                              |
| • from GPS-signal  | Yes                              | Yes                              |
| • from mobile network provider   | Yes                              | Yes                              |
| • PC   | Yes                              | Yes                              |
| • manual setting   | Yes                              | Yes                              |
| <b>product functions position detection</b>                                |                                  |                                  |
| product function   |                                  |                                  |
| • position detection with GPS  | Yes                              | Yes                              |
| • pass on position data  | Yes                              | Yes                              |
| <b>standards, specifications, approvals hazardous environments</b>         |                                  |                                  |
| certificate of suitability CCC for hazardous zone according to GB standard | Yes                              | Yes                              |

2

## Overview



### The flat power supply unit for distribution boards

Small. Clever. LOGO!Power: Thanks to its stepped profile design, the LOGO! 8 product line is ideally suited for installation in small distribution boards. The 12 V and 24 V versions are ideal for supplying LOGO! controllers with the corresponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to the integrated current monitor. The extended ambient temperature range from -25 °C to +70 °C enables a host of additional applications.

To further increase 24 V availability, the 24 V LOGO!Power power supplies can be combined with the **buffer module BUF1200**, **DC UPS**, **redundancy** and **selectivity modules**.

This powerhouse can be used in any industry: e.g. in building technology applications for light and heating controllers or for access control systems. LOGO!Power is also well-suited for use in industrial automation, such as in packaging machine, machine tool, conveyor belt or sorting system applications.

### Product highlights of the product line

- Low width  
with minimum of 18 mm to maximum of 72 mm, thus requiring very little space in the control cabinet or distribution board
- High energy efficiency  
with efficiency levels of up to 90% over the entire performance range and ERP-compliant no-load losses of < 0.3 W
- Global use  
due to operating temperature range from -25 °C to +70 °C and international certificates
- Supply  
of NEC Class 2 electric circuits with limited output current (100 VA)
- Load monitoring via current monitor  
using real-time measurement of the output current without disconnecting the cable, i.e. without interrupting the DC supply
- Flexible mounting  
with top hat DIN rail or wall mounting in different installation positions
- Flexible operation  
in all standard 1-phase supply networks thanks to wide-range input of 100 ... 240 V AC without switchover and operation on DC networks with 110 ... 300 V DC
- Reliability  
due to problem-free connection of loads with high inrush currents thanks to power reserve during startup as well as constant current in the event of overload

| Overall width | 18 mm | 36 mm | 54 mm | 72 mm |
|---------------|-------|-------|-------|-------|
| 24 V          | 0.6 A | 1.3 A | 2.5 A | 4.0 A |
| 12 V          | 0.9 A | 1.9 A | 4.5 A |       |
| 5 V           |       | 3.0 A | 6.3 A |       |
| 15 V          |       | 1.9 A | 4.0 A |       |

**LOGO! logic module**

LOGO!Power

**1-phase, 5 V DC****Overview**

2



Thanks to its stepped profile design, the LOGO!Power product line is ideally suited for installation in small distribution boards. The stabilized power supplies with wide-range input are available with an output voltage of 5 V in two performance classes.

**Product highlights**

- 1-phase, 5 V DC/ 3 A and 6.3 A
- Wide-range input, input voltage 100 ... 240 V AC (85 ... 264 V), 110 ... 300 V DC
- Narrow unit with 36 mm or 54 mm width and overall depth of 53 mm in LOGO! design
- Up to 80% efficiency
- Integrated current monitor: Actual output current measurement directly at the power supply unit
- cULus, cURus, NEC class 2, ABS, DNV GL certifications

**Ordering data****Article No.****Article No.****LOGO!Power 1-phase, 5 V DC/3 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V AC)  
Output: 5 V DC/3 A

**6EP3310-6SB00-0AY0****LOGO!Power 1-phase, 5 V DC/6.3 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V AC)  
Output: 5 V DC/6.3 A

**6EP3311-6SB00-0AY0****Technical specifications**

| Article number   | <b>6EP3310-6SB00-0AY0</b>  | <b>6EP3311-6SB00-0AY0</b>   |
|--|--|---|
| Product  | LOGO!Power   | LOGO!Power  |
| Power supply, type   | 5 V/3 A  | 5 V/6.3 A   |
| <b>Input</b>   |  |   |
| type of the power supply network   | 1-phase AC or DC   | 1-phase AC or DC  |
| supply voltage at AC   |  |   |
| • minimum rated value  | 100 V  | 100 V   |
| • maximum rated value  | 240 V  | 240 V   |
| • initial value  | 85 V   | 85 V  |
| • full-scale value   | 264 V  | 264 V   |
| input voltage  |  |   |
| • at DC  | 110 ... 300 V  | 110 ... 300 V   |
| design of input wide range input   | Yes  | Yes   |
| overvoltage overload capability  | 300 V AC for 1 s   | 300 V AC for 1 s  |
| operating condition of the mains buffering   | at $V_{in} = 187$ V  | at $V_{in} = 187$ V   |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms  | 40 ms   |
| operating condition of the mains buffering   | at $V_{in} = 187$ V  | at $V_{in} = 187$ V   |
| line frequency   |  |   |
| • 1 rated value  | 50 Hz  | 50 Hz   |
| • 2 rated value  | 60 Hz  | 60 Hz   |
| line frequency   | 47 ... 63 Hz   | 47 ... 63 Hz  |
| input current  |  |   |
| • at rated input voltage 120 V   | 0.36 A   | 0.71 A  |
| • at rated input voltage 230 V   | 0.22 A   | 0.37 A  |
| current limitation of inrush current at 25 °C maximum                                      | 26 A   | 50 A  |
| $I^2t$ value maximum   | 0.8 A <sup>2</sup> ·s  | 3 A <sup>2</sup> ·s   |
| fuse protection type   | internal   | internal  |
| • in the feeder  | Recommended miniature circuit breaker:<br>from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker:<br>from 10 A characteristic B or from 6 A characteristic C |



## Technical specifications

| Article number  | 6EP3310-6SB00-0AY0                       | 6EP3311-6SB00-0AY0                         |
|---|--|--|
| Product   | LOGO!Power                               | LOGO!Power                                 |
| Power supply, type  | 5 V/3 A                                  | 5 V/6.3 A                                  |
| <b>Output</b>   |  |  |
| voltage curve at output   | Controlled, isolated DC voltage          | Controlled, isolated DC voltage            |
| output voltage at DC rated value  | 5 V                                      | 5 V  |
| output voltage  |  |  |
| • at output 1 at DC rated value   | 5 V                                      | 5 V  |
| relative overall tolerance of the voltage   | 3 %                                      | 3 %  |
| relative control precision of the output voltage  |  |  |
| • on slow fluctuation of input voltage  | 0.1 %                                    | 0.1 %                                      |
| • on slow fluctuation of ohm loading  | 0.1 %                                    | 0.1 %                                      |
| residual ripple   |  |  |
| • maximum   | 100 mV                                   | 100 mV                                     |
| • typical   | 30 mV                                    | 30 mV                                      |
| voltage peak  |  |  |
| • maximum   | 100 mV                                   | 100 mV                                     |
| • typical   | 50 mV                                    | 50 mV                                      |
| adjustable output voltage   | 4.6 ... 5.4 V                            | 4.6 ... 5.4 V                              |
| product function output voltage adjustable  | Yes                                      | Yes  |
| type of output voltage setting  | via potentiometer                        | via potentiometer                          |
| display version for normal operation  | Green LED for output voltage OK          | Green LED for output voltage OK            |
| behavior of the output voltage when switching on  | No overshoot of $V_{out}$ (soft start)   | No overshoot of $V_{out}$ (soft start)     |
| response delay maximum  | 0.5 s                                    | 0.5 s                                      |
| voltage increase time of the output voltage   |  |  |
| • typical   | 100 ms                                   | 100 ms                                     |
| output current  |  |  |
| • rated value   | 3 A                                      | 6.3 A                                      |
| • rated range   | 0 ... 3 A; +55 ... +70 °C: Derating 2%/K | 0 ... 6.3 A; +55 ... +70 °C: Derating 2%/K |
| supplied active power typical   | 15 W                                     | 31.5 W                                     |
| product feature   |  |  |
| • bridging of equipment   | Yes                                      | Yes  |
| number of parallel-switched equipment resources for increasing the power  | 2  | 2  |
| <b>Efficiency</b>   |  |  |
| efficiency in percent   | 76 %                                     | 80 %                                       |
| power loss [W]  |  |  |
| • at rated output voltage for rated value of the output current typical   | 5 W                                      | 8 W  |
| • during no-load operation maximum  | 0.3 W                                    | 0.3 W                                      |
| <b>Closed-loop control</b>  |  |  |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.2 %                                    | 0.2 %                                      |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical              | 5 %                                      | 7 %  |
| setting time  |  |  |
| • load step 10 to 90% typical   | 1 ms                                     | 1 ms                                       |
| • load step 90 to 10% typical   | 1 ms                                     | 1 ms                                       |

# LOGO! logic module

## LOGO!Power

### 1-phase, 5 V DC

#### Technical specifications

| Article number                                      | <b>6EP3310-6SB00-0AY0</b>  | <b>6EP3311-6SB00-0AY0</b>   |
|---|--|---|
| Product   | LOGO!Power   | LOGO!Power  |
| Power supply, type                                  | 5 V/3 A  | 5 V/6.3 A   |
| <b>Protection and monitoring</b>                    |  |   |
| design of the overvoltage protection                | Yes, according to EN 60950-1   | Yes, according to EN 60950-1  |
| response value current limitation typical           | 3.8 A  | 8.2 A   |
| property of the output short-circuit proof          | Yes  | Yes   |
| design of short-circuit protection                  | Constant current characteristic  | Constant current characteristic   |
| enduring short circuit current RMS value            |  |   |
| • maximum   | 3.8 A  | 8.2 A   |
| overcurrent overload capability in normal operation | overload capability 150% $I_{out rated}$ typ. 200 ms   | overload capability 150% $I_{out rated}$ typ. 200 ms  |
| display version for overload and short circuit      | -  | -   |
| measuring point for output current                  | 50 mV = <sup>^</sup> 3 A   | 50 mV = <sup>^</sup> 6.3 A  |
| overcurrent overload capability when switching on   | 150% $I_{out rated}$ typ. 200 ms   | 150% $I_{out rated}$ typ. 200 ms  |
| <b>Safety</b>                                       |  |   |
| galvanic isolation between input and output         | Yes  | Yes   |
| galvanic isolation                                  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178   |
| operating resource protection class                 | Class II (without protective conductor)  | Class II (without protective conductor)   |
| protection class IP                                 | IP20   | IP20  |
| <b>Approvals</b>                                    |  |   |
| certificate of suitability                          | Yes  | Yes   |
| • CE marking  | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273 |
| • UL approval                                       |  |   |
| • CSA approval                                      | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273 |
| • cCSAus, Class 1, Division 2                       | No   | No  |
| • ATEX  | No   | No  |
| certificate of suitability                          |  |   |
| • IECEX   | No   | No  |
| • NEC Class 2                                       | Yes  | No  |
| • ULhazloc approval                                 | No   | No  |
| • FM registration                                   | No   | No  |
| type of certification CB-certificate                | Yes  | Yes   |
| certificate of suitability                          |  |   |
| • EAC approval                                      | Yes  | Yes   |
| certificate of suitability shipbuilding approval    | Yes  | Yes   |
| shipbuilding approval                               | ABS, BV, DNV GL, LRS   | ABS, BV, DNV GL, LRS  |
| Marine classification association                   |  |   |
| • American Bureau of Shipping Europe Ltd. (ABS)     | Yes  | Yes   |
| • French marine classification society (BV)         | Yes  | Yes   |
| • DNV GL  | Yes  | Yes   |
| • Lloyds Register of Shipping (LRS)                 | Yes  | Yes   |
| • Nippon Kaiji Kyokai (NK)                          | No   | No  |
| <b>EMC</b>  |  |   |
| standard  |  |   |
| • for emitted interference                          | EN 55022 Class B   | EN 55022 Class B  |
| • for mains harmonics limitation                    | not applicable   | not applicable  |
| • for interference immunity                         | EN 61000-6-2   | EN 61000-6-2  |

**Technical specifications**

| Article number   | <b>6EP3310-6SB00-0AY0</b>   | <b>6EP3311-6SB00-0AY0</b>   |
|--|---|---|
| Product  | LOGO!Power  | LOGO!Power  |
| Power supply, type                                       | 5 V/3 A   | 5 V/6.3 A   |
| <b>environmental conditions</b>                          |   |   |
| ambient temperature                                      |   |   |
| • during operation                                       | -25 ... +70 °C; with natural convection   | -25 ... +70 °C; with natural convection   |
| • during transport                                       | -40 ... +85 °C  | -40 ... +85 °C  |
| • during storage   | -40 ... +85 °C  | -40 ... +85 °C  |
| environmental category according to IEC 60721            | Climate class 3K3, 5 ... 95% no condensation  | Climate class 3K3, 5 ... 95% no condensation  |
| <b>Mechanics</b>   |   |   |
| type of electrical connection                            | screw-type terminals  | screw-type terminals  |
| • at input   | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           |
| • at output  | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       |
| • for auxiliary contacts                                 | -   | -   |
| width of the enclosure                                   | 36 mm   | 54 mm   |
| height of the enclosure                                  | 90 mm   | 90 mm   |
| depth of the enclosure                                   | 53 mm   | 53 mm   |
| required spacing   |   |   |
| • top  | 20 mm   | 20 mm   |
| • bottom   | 20 mm   | 20 mm   |
| • left   | 0 mm  | 0 mm  |
| • right  | 0 mm  | 0 mm  |
| net weight   | 0.12 kg   | 0.2 kg  |
| product feature of the enclosure housing can be lined up | Yes   | Yes   |
| fastening method   | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           |
| MTBF at 40 °C  | 2 931 709 h   | 2 654 280 h   |
| other information  | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

**LOGO! logic module**

LOGO!Power

**1-phase, 12 V DC****Overview**

2



Thanks to its stepped profile design, the LOGO!Power product line is ideally suited for installation in small distribution boards. The stabilized power supplies with wide-range input are available with an output voltage of 12 V in three performance classes. The 12 V versions are ideal for supplying LOGO! PLCs with the corresponding voltage input.

**Product highlights**

- 1-phase, 12 V DC/ 0.9 A, 1.9 A and 4.5 A
- Wide-range input, input voltage 100 ... 240 V AC (85 ... 264 V), 110 ... 300 V DC
- Narrow unit with width of 18 mm, 36 mm or 54 mm and overall depth of 53 mm in LOGO! design
- Up to 87.1% efficiency
- Integrated current monitor: actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- cULus, cURus, NEC class 2, ABS, DNV GL certifications

**Ordering data****LOGO!Power 1-phase, 12 V DC/0.9 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 12 V DC/0.9 A

**Article No.****6EP3320-6SB00-0AY0****LOGO!Power 1-phase, 12 V DC/1.9 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 12 V DC/1.9 A

**6EP3321-6SB00-0AY0****Article No.****LOGO!Power 1-phase, 12 V DC/4.5 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 12 V DC/4.5 A

**6EP3322-6SB00-0AY0****Add-on modules****SITOP redundancy modules RED1200**

For more information, visit:  
<http://www.siemens.com/sitop-redundancy/mail>

**Technical specifications**

| Article number   | <b>6EP3320-6SB00-0AY0</b> | <b>6EP3321-6SB00-0AY0</b> | <b>6EP3322-6SB00-0AY0</b> |
|--|---------------------------|---------------------------|---------------------------|
| Product  | LOGO!Power                | LOGO!Power                | LOGO!Power                |
| Power supply, type   | 12 V/0.9 A                | 12 V/1.9 A                | 12 V/4.5 A                |
| <b>Input</b>   |                           |                           |                           |
| type of the power supply network   | 1-phase AC or DC          | 1-phase AC or DC          | 1-phase AC or DC          |
| supply voltage at AC   |                           |                           |                           |
| • minimum rated value  | 100 V                     | 100 V                     | 100 V                     |
| • maximum rated value  | 240 V                     | 240 V                     | 240 V                     |
| • initial value  | 85 V                      | 85 V                      | 85 V                      |
| • full-scale value   | 264 V                     | 264 V                     | 264 V                     |
| input voltage  |                           |                           |                           |
| • at DC  | 110 ... 300 V             | 110 ... 300 V             | 110 ... 300 V             |
| design of input wide range input   | Yes                       | Yes                       | Yes                       |
| overvoltage overload capability  | 300 V AC for 1 s          | 300 V AC for 1 s          | 300 V AC for 1 s          |
| operating condition of the mains buffering   | at $V_{in} = 187$ V       | at $V_{in} = 187$ V       | at $V_{in} = 187$ V       |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms                     | 40 ms                     | 40 ms                     |
| operating condition of the mains buffering   | at $V_{in} = 187$ V       | at $V_{in} = 187$ V       | at $V_{in} = 187$ V       |
| line frequency   |                           |                           |                           |
| • 1 rated value  | 50 Hz                     | 50 Hz                     | 50 Hz                     |
| • 2 rated value  | 60 Hz                     | 60 Hz                     | 60 Hz                     |
| line frequency   | 47 ... 63 Hz              | 47 ... 63 Hz              | 47 ... 63 Hz              |
| input current  |                           |                           |                           |

## Technical specifications

| Article number  | 6EP3320-6SB00-0AY0  | 6EP3321-6SB00-0AY0  | 6EP3322-6SB00-0AY0   |
|---|---|---|--|
| Product   | LOGO!Power  | LOGO!Power  | LOGO!Power   |
| Power supply, type  | 12 V/0.9 A  | 12 V/1.9 A  | 12 V/4.5 A   |
| <ul style="list-style-type: none"> <li>at rated input voltage 120 V</li> <li>at rated input voltage 230 V</li> </ul>  | 0.3 A<br>0.2 A  | 0.53 A<br>0.3 A   | 1.13 A<br>0.61 A   |
| current limitation of inrush current at 25 °C maximum   | 20 A  | 25 A  | 50 A   |
| I <sup>2</sup> t value maximum  | 0.8 A <sup>2</sup> ·s   | 0.8 A <sup>2</sup> ·s   | 3 A <sup>2</sup> ·s  |
| fuse protection type  | internal  | internal  | internal   |
| <ul style="list-style-type: none"> <li>in the feeder</li> </ul>   | Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C |
| <b>Output</b>   |   |   |  |
| voltage curve at output   | Controlled, isolated DC voltage   | Controlled, isolated DC voltage   | Controlled, isolated DC voltage  |
| output voltage at DC rated value  | 12 V  | 12 V  | 12 V   |
| output voltage  |   |   |  |
| <ul style="list-style-type: none"> <li>at output 1 at DC rated value</li> </ul>   | 12 V  | 12 V  | 12 V   |
| relative overall tolerance of the voltage   | 3 %   | 3 %   | 3 %  |
| relative control precision of the output voltage  |   |   |  |
| <ul style="list-style-type: none"> <li>on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> </ul>                                | 0.1 %<br>0.1 %  | 0.1 %<br>0.1 %  | 0.1 %<br>0.1 %   |
| residual ripple   |   |   |  |
| <ul style="list-style-type: none"> <li>maximum</li> <li>typical</li> </ul>  | 200 mV<br>30 mV   | 200 mV<br>30 mV   | 200 mV<br>30 mV  |
| voltage peak  |   |   |  |
| <ul style="list-style-type: none"> <li>maximum</li> <li>typical</li> </ul>  | 300 mV<br>50 mV   | 300 mV<br>50 mV   | 300 mV<br>50 mV  |
| adjustable output voltage   |   | 10.5 ... 16.1 V   | 10.5 ... 16.1 V  |
| product function output voltage adjustable  | No  | Yes   | Yes  |
| type of output voltage setting  |   | via potentiometer   | via potentiometer  |
| display version for normal operation  | Green LED for output voltage OK   | Green LED for output voltage OK   | Green LED for output voltage OK  |
| behavior of the output voltage when switching on  | No overshoot of V <sub>out</sub> (soft start)   | No overshoot of V <sub>out</sub> (soft start)   | No overshoot of V <sub>out</sub> (soft start)  |
| response delay maximum  | 0.5 s   | 0.5 s   | 0.5 s  |
| voltage increase time of the output voltage   |   |   |  |
| <ul style="list-style-type: none"> <li>typical</li> </ul>   | 100 ms  | 100 ms  | 100 ms   |
| output current  |   |   |  |
| <ul style="list-style-type: none"> <li>rated value</li> <li>rated range</li> </ul>  | 0.9 A<br>0 ... 0.9 A; +55 ... +70 °C:<br>Derating 2%/K  | 1.9 A<br>0 ... 1.9 A; +55 ... +70 °C:<br>Derating 2%/K  | 4.5 A<br>0 ... 4.5 A; +55 ... +70 °C:<br>Derating 2%/K   |
| supplied active power typical   | 10.8 W  | 22.8 W  | 54 W   |
| product feature   |   |   |  |
| <ul style="list-style-type: none"> <li>bridging of equipment</li> </ul>   | No  | Yes   | Yes  |
| number of parallel-switched equipment resources for increasing the power  |   | 2   | 2  |
| <b>Efficiency</b>   |   |   |  |
| efficiency in percent   | 78 %  | 81 %  | 87.1 %   |
| power loss [W]  |   |   |  |
| <ul style="list-style-type: none"> <li>at rated output voltage for rated value of the output current typical</li> <li>during no-load operation maximum</li> </ul> | 3 W<br>0.3 W  | 5 W<br>0.3 W  | 8 W<br>0.3 W   |
| <b>Closed-loop control</b>  |   |   |  |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical   | 0.2 %   | 0.2 %   | 0.2 %  |

# LOGO! logic module

## LOGO!Power

### 1-phase, 12 V DC

#### Technical specifications

| Article number   | 6EP3320-6SB00-0AY0   | 6EP3321-6SB00-0AY0   | 6EP3322-6SB00-0AY0   |
|--|--|--|--|
| Product  | LOGO!Power   | LOGO!Power   | LOGO!Power   |
| Power supply, type   | 12 V/0.9 A   | 12 V/1.9 A   | 12 V/4.5 A   |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical | 3 %  | 2 %  | 4 %  |
| setting time   |  |  |  |
| • load step 10 to 90% typical  | 1 ms   | 1 ms   | 1 ms   |
| • load step 90 to 10% typical  | 1 ms   | 1 ms   | 1 ms   |
| <b>Protection and monitoring</b>   |  |  |  |
| design of the overvoltage protection   | Yes, according to EN 60950-1   | Yes, according to EN 60950-1   | Yes, according to EN 60950-1   |
| response value current limitation typical  | 1.3 A  | 2.5 A  | 5 A  |
| property of the output short-circuit proof   | Yes  | Yes  | Yes  |
| design of short-circuit protection   | Constant current characteristic  | Constant current characteristic  | Constant current characteristic  |
| enduring short circuit current RMS value   |  |  |  |
| • maximum  | 1.3 A  | 2.5 A  | 5 A  |
| overcurrent overload capability in normal operation  | overload capability 150% $I_{out\ rated}$ typ. 200 ms  | overload capability 150% $I_{out\ rated}$ typ. 200 ms  | overload capability 150% $I_{out\ rated}$ typ. 200 ms  |
| display version for overload and short circuit   | -  | -  | -  |
| measuring point for output current   |  | 50 mV = ^ 1.9 A  | 50 mV = ^ 4.5 A  |
| overcurrent overload capability when switching on  | 150% $I_{out\ rated}$ typ. 200 ms  | 150% $I_{out\ rated}$ typ. 200 ms  | 150% $I_{out\ rated}$ typ. 200 ms  |
| <b>Safety</b>  |  |  |  |
| galvanic isolation between input and output  | Yes  | Yes  | Yes  |
| galvanic isolation   | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  |
| operating resource protection class  | Class II (without protective conductor)  | Class II (without protective conductor)  | Class II (without protective conductor)  |
| protection class IP  | IP20   | IP20   | IP20   |
| <b>Approvals</b>   |  |  |  |
| certificate of suitability   |  |  |  |
| • CE marking   | Yes  | Yes  | Yes  |
| • UL approval  | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) |
| • CSA approval   | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) |
| • cCSAus, Class 1, Division 2  | No   | No   | No   |
| • ATEX   | No   | No   | No   |
| certificate of suitability   |  |  |  |
| • IECEX  | No   | No   | No   |
| • NEC Class 2  | Yes  | Yes  | No   |
| • ULhazloc approval  | No   | No   | No   |
| • FM registration  | No   | No   | No   |
| type of certification CB-certificate   | Yes  | Yes  | Yes  |
| certificate of suitability   |  |  |  |
| • EAC approval   | Yes  | Yes  | Yes  |
| certificate of suitability shipbuilding approval   | Yes  | Yes  | Yes  |
| shipbuilding approval  | ABS, BV, DNV GL, LRS   | ABS, BV, DNV GL, LRS   | ABS, BV, DNV GL, LRS   |
| Marine classification association  |  |  |  |
| • American Bureau of Shipping Europe Ltd. (ABS)  | Yes  | Yes  | Yes  |
| • French marine classification society (BV)  | Yes  | Yes  | Yes  |
| • DNV GL   | Yes  | Yes  | Yes  |
| • Lloyds Register of Shipping (LRS)  | Yes  | Yes  | Yes  |
| • Nippon Kaiji Kyokai (NK)   | No   | No   | No   |

## Technical specifications

| Article number  | 6EP3320-6SB00-0AY0  | 6EP3321-6SB00-0AY0  | 6EP3322-6SB00-0AY0  |
|---|---|---|---|
| Product   | LOGO!Power  | LOGO!Power  | LOGO!Power  |
| Power supply, type  | 12 V/0.9 A  | 12 V/1.9 A  | 12 V/4.5 A  |
| <b>EMC</b>  |   |   |   |
| standard  |   |   |   |
| • for emitted interference                                  | EN 55022 Class B  | EN 55022 Class B  | EN 55022 Class B  |
| • for mains harmonics limitation                            | not applicable  | not applicable  | not applicable  |
| • for interference immunity                                 | EN 61000-6-2  | EN 61000-6-2  | EN 61000-6-2  |
| <b>environmental conditions</b>                             |   |   |   |
| ambient temperature   |   |   |   |
| • during operation  | -25 ... +70 °C; with natural convection   | -25 ... +70 °C; with natural convection   | -25 ... +70 °C; with natural convection   |
| • during transport  | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C  |
| • during storage  | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C  |
| environmental category according to IEC 60721               | Climate class 3K3, 5 ... 95%<br>no condensation   | Climate class 3K3, 5 ... 95%<br>no condensation   | Climate class 3K3, 5 ... 95%<br>no condensation   |
| <b>Mechanics</b>  |   |   |   |
| type of electrical connection                               | screw-type terminals  | screw-type terminals  | screw-type terminals  |
| • at input  | L, N: 1 screw terminal each for<br>0.5 ... 2.5 mm <sup>2</sup> single-core/<br>finely stranded          | L, N: 1 screw terminal each for<br>0.5 ... 2.5 mm <sup>2</sup> single-core/<br>finely stranded          | L, N: 1 screw terminal each for<br>0.5 ... 2.5 mm <sup>2</sup> single-core/<br>finely stranded          |
| • at output   | +, -: 1 screw terminal each<br>for 0.5 ... 2.5 mm <sup>2</sup>  | +, -: 1 screw terminal each<br>for 0.5 ... 2.5 mm <sup>2</sup>  | +, -: 1 screw terminal each<br>for 0.5 ... 2.5 mm <sup>2</sup>  |
| • for auxiliary contacts                                    | -   | -   | -   |
| width of the enclosure                                      | 18 mm   | 36 mm   | 54 mm   |
| height of the enclosure                                     | 90 mm   | 90 mm   | 90 mm   |
| depth of the enclosure                                      | 53 mm   | 53 mm   | 53 mm   |
| required spacing  |   |   |   |
| • top   | 20 mm   | 20 mm   | 20 mm   |
| • bottom  | 20 mm   | 20 mm   | 20 mm   |
| • left  | 0 mm  | 0 mm  | 0 mm  |
| • right   | 0 mm  | 0 mm  | 0 mm  |
| net weight  | 0.07 kg   | 0.12 kg   | 0.2 kg  |
| product feature of the enclosure<br>housing can be lined up | Yes   | Yes   | Yes   |
| fastening method  | Snaps onto DIN rail EN 60715<br>35x7.5/15, direct mounting in different<br>mounting positions           | Snaps onto DIN rail EN 60715<br>35x7.5/15, direct mounting in different<br>mounting positions           | Snaps onto DIN rail EN 60715<br>35x7.5/15, direct mounting in different<br>mounting positions           |
| MTBF at 40 °C   | 3 793 080 h   | 2 938 542 h   | 2 566 680 h   |
| other information   | Specifications at rated input voltage<br>and ambient temperature +25 °C<br>(unless otherwise specified) | Specifications at rated input voltage<br>and ambient temperature +25 °C<br>(unless otherwise specified) | Specifications at rated input voltage<br>and ambient temperature +25 °C<br>(unless otherwise specified) |

**LOGO! logic module**

LOGO!Power

**1-phase, 15 V DC****Overview**

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Thanks to its stepped profile design, the LOGO!Power product line is ideally suited for installation in small distribution boards. The stabilized power supplies with a wide-range input are available with an output voltage of 15 V in two performance classes.

**Product highlights**

- 1-phase, 15 V DC/ 1.9 A and 4.0 A
- Wide-range input, input voltage 100 ... 240 V AC (85 ... 264 V), 110 ... 300 V DC
- Narrow unit with 36 mm or 54 mm width and overall depth of 53 mm in LOGO! design
- Up to 88.4% efficiency
- Integrated current monitor: actual output current measurement directly at the power supply unit
- cULus, cURus, NEC class 2, ABS, BV, DNV GL, LRS certifications

**Ordering data****Article No.****LOGO!Power 1-phase, 15 V DC/1.9 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 15 V DC/1.9 A

**6EP3321-6SB10-0AY0****LOGO!Power 1-phase, 15 V DC/4 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 15 V DC/4 A

**6EP3322-6SB10-0AY0****Article No.****Add-on modules****SITOP redundancy modules RED1200**

For more information, visit:  
<http://www.siemens.com/sitop-redundancy/mall>

**Technical specifications**

| Article number   | <b>6EP3321-6SB10-0AY0</b> | <b>6EP3322-6SB10-0AY0</b> |
|--|---------------------------|---------------------------|
| Product  | LOGO!Power                | LOGO!Power                |
| Power supply, type   | 15 V/1.9 A                | 15 V/4 A                  |
| <b>Input</b>   |                           |                           |
| type of the power supply network   | 1-phase AC or DC          | 1-phase AC or DC          |
| supply voltage at AC   |                           |                           |
| • minimum rated value  | 100 V                     | 100 V                     |
| • maximum rated value  | 240 V                     | 240 V                     |
| • initial value  | 85 V                      | 85 V                      |
| • full-scale value   | 264 V                     | 264 V                     |
| input voltage  |                           |                           |
| • at DC  | 110 ... 300 V             | 110 ... 300 V             |
| design of input wide range input   | Yes                       | Yes                       |
| overvoltage overload capability  | 300 V AC for 1 s          | 300 V AC for 1 s          |
| operating condition of the mains buffering   | at $V_{in} = 187 V$       | at $V_{in} = 187 V$       |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms                     | 40 ms                     |
| operating condition of the mains buffering   | at $V_{in} = 187 V$       | at $V_{in} = 187 V$       |
| line frequency   |                           |                           |
| • 1 rated value  | 50 Hz                     | 50 Hz                     |
| • 2 rated value  | 60 Hz                     | 60 Hz                     |
| line frequency   | 47 ... 63 Hz              | 47 ... 63 Hz              |
| input current  |                           |                           |
| • at rated input voltage 120 V   | 0.63 A                    | 1.24 A                    |
| • at rated input voltage 230 V   | 0.33 A                    | 0.68 A                    |



## Technical specifications

| Article number  | 6EP3321-6SB10-0AY0   | 6EP3322-6SB10-0AY0  |
|---|--|---|
| Product   | LOGO!Power   | LOGO!Power  |
| Power supply, type  | 15 V/1.9 A   | 15 V/4 A  |
| current limitation of inrush current at 25 °C maximum   | 25 A   | 55 A  |
| I <sup>2</sup> t value maximum  | 0.8 A <sup>2</sup> ·s  | 3 A <sup>2</sup> ·s   |
| fuse protection type  | internal   | internal  |
| • in the feeder   | Recommended miniature circuit breaker:<br>from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker:<br>from 10 A characteristic B or from 6 A characteristic C |
| <b>Output</b>   |  |   |
| voltage curve at output   | Controlled, isolated DC voltage  | Controlled, isolated DC voltage   |
| output voltage at DC rated value  | 15 V   | 15 V  |
| output voltage  |  |   |
| • at output 1 at DC rated value   | 15 V   | 15 V  |
| relative overall tolerance of the voltage   | 3 %  | 3 %   |
| relative control precision of the output voltage  |  |   |
| • on slow fluctuation of input voltage  | 0.1 %  | 0.1 %   |
| • on slow fluctuation of ohm loading  | 0.1 %  | 0.1 %   |
| residual ripple   |  |   |
| • maximum   | 200 mV   | 200 mV  |
| • typical   | 30 mV  | 30 mV   |
| voltage peak  |  |   |
| • maximum   | 300 mV   | 300 mV  |
| • typical   | 50 mV  | 50 mV   |
| adjustable output voltage   | 10.5 ... 16.1 V  | 10.5 ... 16.1 V   |
| product function output voltage adjustable  | Yes  | Yes   |
| type of output voltage setting  | via potentiometer  | via potentiometer   |
| display version for normal operation  | Green LED for output voltage OK  | Green LED for output voltage OK   |
| behavior of the output voltage when switching on  | No overshoot of V <sub>out</sub> (soft start)  | No overshoot of V <sub>out</sub> (soft start)   |
| response delay maximum  | 0.5 s  | 0.5 s   |
| voltage increase time of the output voltage   |  |   |
| • typical   | 100 ms   | 100 ms  |
| output current  |  |   |
| • rated value   | 1.9 A  | 4 A   |
| • rated range   | 0 ... 1.9 A; +55 ... +70 °C: Derating 2%/K   | 0 ... 4 A; +55 ... +70 °C: Derating 2%/K  |
| supplied active power typical   | 28.5 W   | 60 W  |
| product feature   |  |   |
| • bridging of equipment   | Yes  | Yes   |
| number of parallel-switched equipment resources for increasing the power  | 2  | 2   |
| <b>Efficiency</b>   |  |   |
| efficiency in percent   | 83 %   | 88.4 %  |
| power loss [W]  |  |   |
| • at rated output voltage for rated value of the output current typical   | 6 W  | 8 W   |
| • during no-load operation maximum  | 0.3 W  | 0.3 W   |
| <b>Closed-loop control</b>  |  |   |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.2 %  | 0.2 %   |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical              | 2 %  | 3 %   |
| setting time  |  |   |

# LOGO! logic module

## LOGO!Power

### 1-phase, 15 V DC

#### Technical specifications

| Article number  | <b>6EP3321-6SB10-0AY0</b>  | <b>6EP3322-6SB10-0AY0</b>  |
|---|--|--|
| Product   | LOGO!Power   | LOGO!Power   |
| Power supply, type  | 15 V/1.9 A   | 15 V/4 A   |
| <ul style="list-style-type: none"> <li>load step 10 to 90% typical</li> <li>load step 90 to 10% typical</li> </ul>  | 1 ms<br>1 ms   | 1 ms<br>1 ms   |
| <b>Protection and monitoring</b>  |  |  |
| design of the overvoltage protection  | Yes, according to EN 60950-1   | Yes, according to EN 60950-1   |
| response value current limitation typical   | 2.5 A  | 5 A  |
| property of the output short-circuit proof  | Yes  | Yes  |
| design of short-circuit protection  | Constant current characteristic  | Constant current characteristic  |
| enduring short circuit current RMS value  |  |  |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>   | 2.5 A  | 5 A  |
| overcurrent overload capability in normal operation   | overload capability 150% $I_{out rated}$ typ. 200 ms   | overload capability 150% $I_{out rated}$ typ. 200 ms   |
| display version for overload and short circuit  | -  | -  |
| measuring point for output current  | 50 mV = <sup>^</sup> 1.9 A   | 45 mV = <sup>^</sup> 4 A   |
| overcurrent overload capability when switching on   | 150% $I_{out rated}$ typ. 200 ms   | 150% $I_{out rated}$ typ. 200 ms   |
| <b>Safety</b>   |  |  |
| galvanic isolation between input and output   | Yes  | Yes  |
| galvanic isolation  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178  |
| operating resource protection class   | Class II (without protective conductor)  | Class II (without protective conductor)  |
| protection class IP   | IP20   | IP20   |
| <b>Approvals</b>  |  |  |
| certificate of suitability  |  |  |
| <ul style="list-style-type: none"> <li>CE marking</li> <li>UL approval</li> </ul>   | Yes  | Yes  |
| <ul style="list-style-type: none"> <li>CSA approval</li> </ul>  | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) |
| <ul style="list-style-type: none"> <li>cCSAus, Class 1, Division 2</li> <li>ATEX</li> </ul>   | No<br>No   | No<br>No   |
| certificate of suitability  |  |  |
| <ul style="list-style-type: none"> <li>IECEX</li> <li>NEC Class 2</li> <li>ULhazloc approval</li> <li>FM registration</li> </ul>  | No<br>Yes<br>No<br>No  | No<br>Yes<br>No<br>No  |
| type of certification CB-certificate  | Yes  | Yes  |
| certificate of suitability  |  |  |
| <ul style="list-style-type: none"> <li>EAC approval</li> </ul>  | Yes  | Yes  |
| certificate of suitability shipbuilding approval  | Yes  | Yes  |
| shipbuilding approval   | ABS, BV, DNV GL, LRS   | ABS, BV, DNV GL, LRS   |
| Marine classification association   |  |  |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>DNV GL</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> </ul> | Yes<br>Yes<br>Yes<br>Yes<br>No   | Yes<br>Yes<br>Yes<br>Yes<br>No   |
| <b>EMC</b>  |  |  |
| standard  |  |  |
| <ul style="list-style-type: none"> <li>for emitted interference</li> <li>for mains harmonics limitation</li> <li>for interference immunity</li> </ul>   | EN 55022 Class B<br>not applicable<br>EN 61000-6-2   | EN 55022 Class B<br>not applicable<br>EN 61000-6-2   |

**Technical specifications**

| Article number   | <b>6EP3321-6SB10-0AY0</b>   | <b>6EP3322-6SB10-0AY0</b>   |
|--|---|---|
| Product  | LOGO!Power  | LOGO!Power  |
| Power supply, type                                       | 15 V/1.9 A  | 15 V/4 A  |
| <b>environmental conditions</b>                          |   |   |
| ambient temperature                                      |   |   |
| • during operation                                       | -25 ... +70 °C; with natural convection   | -25 ... +70 °C; with natural convection   |
| • during transport                                       | -40 ... +85 °C  | -40 ... +85 °C  |
| • during storage   | -40 ... +85 °C  | -40 ... +85 °C  |
| environmental category according to IEC 60721            | Climate class 3K3, 5 ... 95% no condensation  | Climate class 3K3, 5 ... 95% no condensation  |
| <b>Mechanics</b>   |   |   |
| type of electrical connection                            | screw-type terminals  | screw-type terminals  |
| • at input   | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           |
| • at output  | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       |
| • for auxiliary contacts                                 | -   | -   |
| width of the enclosure                                   | 36 mm   | 54 mm   |
| height of the enclosure                                  | 90 mm   | 90 mm   |
| depth of the enclosure                                   | 53 mm   | 53 mm   |
| required spacing   |   |   |
| • top  | 20 mm   | 20 mm   |
| • bottom   | 20 mm   | 20 mm   |
| • left   | 0 mm  | 0 mm  |
| • right  | 0 mm  | 0 mm  |
| net weight   | 0.12 kg   | 0.2 kg  |
| product feature of the enclosure housing can be lined up | Yes   | Yes   |
| fastening method   | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           |
| MTBF at 40 °C  | 2 938 542 h   | 2 566 680 h   |
| other information  | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

**LOGO! logic module**

LOGO!Power

**1-phase, 24 V DC****Overview**

Thanks to its stepped profile design, the LOGO!Power product line is ideally suited for installation in small distribution boards. The stabilized power supplies with wide-range input are available with an output voltage of 24 V in four performance classes. The 24 V versions are ideal for supplying LOGO! PLCs with the corresponding voltage input.

To further increase the 24 V availability, the LOGO!Power power supply units can be combined with **DC UPS**, **redundancy** and **selectivity modules**.

**Product highlights**

- 1-phase, 24 V DC/ 0.6 A, 1.3 A, 2.5 A and 4.0 A
- Input voltage 100 ... 240 V AC (85 ... 264 V), 110 ... 300 V DC
- Narrow unit with width of 18 mm, 36 mm, 54 mm or 72 mm and overall depth of 53 mm in LOGO! design
- Up to 90% efficiency
- Integrated current monitor: Actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- cULus, cURus, NEC class 2, ABS, BV, DNV GL, LRS certifications

**Ordering data****Article No.****LOGO!Power 1-phase, 24 V DC/0.6 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 24 V DC/0.6 A

**6EP3330-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/1.3 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 24 V DC/1.3 A

**6EP3331-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/2.5 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 24 V DC/2.5 A

**6EP3332-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/4 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 24 V DC/4 A

**6EP3333-6SB00-0AY0****LOGO!Power Ex 1-phase, 24 V DC/4 A**

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 24 V DC/4 A

**6EP3333-6SC00-0AY0****Add-on modules****SITOP redundancy modules**

For more information, visit:  
<https://www.siemens.com/sitop-redundancy/mall>

**SITOP selectivity modules**

For more information, visit:  
<https://www.siemens.com/sitop-selectivity/mall>

**SITOP buffer module BUF1200**

For more information, visit:  
<https://www.siemens.com/sitop-buffering/mall>

**DC UPS modules****SITOP DC UPS**

For more information, visit:  
<https://www.siemens.com/sitop-ups/mall>

**Technical specifications**

| Article number   | 6EP3330-6SB00-0AY0  | 6EP3331-6SB00-0AY0  | 6EP3332-6SB00-0AY0   | 6EP3333-6SB00-0AY0   | 6EP3333-6SC00-0AY0   |
|--|---|---|--|--|--|
| Product  | LOGO!Power  | LOGO!Power  | LOGO!Power   | LOGO!Power   | LOGO!Power EX  |
| Power supply, type   | 24 V/0.6 A  | 24 V/1.3 A  | 24 V/2.5 A   | 24 V/4 A   | 24 V/4 A   |
| <b>Input</b>   |   |   |  |  |  |
| type of the power supply network   | 1-phase AC or DC  | 1-phase AC or DC  | 1-phase AC or DC   | 1-phase AC or DC   | 1-phase AC or DC   |
| supply voltage at AC   |   |   |  |  |  |
| • minimum rated value  | 100 V   | 100 V   | 100 V  | 100 V  | 100 V  |
| • maximum rated value  | 240 V   | 240 V   | 240 V  | 240 V  | 240 V  |
| • initial value  | 85 V  | 85 V  | 85 V   | 85 V   | 85 V   |
| • full-scale value   | 264 V   | 264 V   | 264 V  | 264 V  | 264 V  |
| input voltage  |   |   |  |  |  |
| • at DC  | 110 ... 300 V   | 110 ... 300 V   | 110 ... 300 V  | 110 ... 300 V  | 110 ... 300 V  |
| design of input wide range input   | Yes   | Yes   | Yes  | Yes  | Yes  |
| overvoltage overload capability  | 300 V AC for 1 s  | 300 V AC for 1 s  | 300 V AC for 1 s   | 300 V AC for 1 s   | 300 V AC for 1 s   |
| operating condition of the mains buffering   | at $V_{in} = 187 V$   | at $V_{in} = 187 V$   | at $V_{in} = 187 V$  | at $V_{in} = 187 V$  | at $V_{in} = 187 V$  |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms   | 40 ms   | 40 ms  | 40 ms  | 40 ms  |
| operating condition of the mains buffering   | at $V_{in} = 187 V$   | at $V_{in} = 187 V$   | at $V_{in} = 187 V$  | at $V_{in} = 187 V$  | at $V_{in} = 187 V$  |
| line frequency   |   |   |  |  |  |
| • 1 rated value  | 50 Hz   | 50 Hz   | 50 Hz  | 50 Hz  | 50 Hz  |
| • 2 rated value  | 60 Hz   | 60 Hz   | 60 Hz  | 60 Hz  | 60 Hz  |
| line frequency   | 47 ... 63 Hz  | 47 ... 63 Hz  | 47 ... 63 Hz   | 47 ... 63 Hz   | 47 ... 63 Hz   |
| input current  |   |   |  |  |  |
| • at rated input voltage 120 V   | 0.3 A   | 0.7 A   | 1.22 A   | 1.95 A   | 1.95 A   |
| • at rated input voltage 230 V   | 0.2 A   | 0.35 A  | 0.66 A   | 0.97 A   | 0.97 A   |
| current limitation of inrush current at 25 °C maximum                                      | 20 A  | 25 A  | 52 A   | 31 A   | 31 A   |
| I <sup>2</sup> t value maximum   | 0.8 A <sup>2</sup> ·s   | 0.8 A <sup>2</sup> ·s   | 3 A <sup>2</sup> ·s  | 2.5 A <sup>2</sup> ·s  | 2.5 A <sup>2</sup> ·s  |
| fuse protection type   | internal  | internal  | internal   | internal   | internal   |
| • in the feeder  | Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C | Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C | Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C | Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C |
| <b>Output</b>  |   |   |  |  |  |
| voltage curve at output  | Controlled, isolated DC voltage   | Controlled, isolated DC voltage   | Controlled, isolated DC voltage  | Controlled, isolated DC voltage  | Controlled, isolated DC voltage  |
| output voltage at DC rated value   | 24 V  | 24 V  | 24 V   | 24 V   | 24 V   |
| output voltage   |   |   |  |  |  |
| • at output 1 at DC rated value  | 24 V  | 24 V  | 24 V   | 24 V   | 24 V   |
| relative overall tolerance of the voltage  | 3 %   | 3 %   | 3 %  | 3 %  | 3 %  |
| relative control precision of the output voltage   |   |   |  |  |  |
| • on slow fluctuation of input voltage   | 0.1 %   | 0.1 %   | 0.1 %  | 0.1 %  | 0.1 %  |
| • on slow fluctuation of ohm loading   | 0.1 %   | 0.1 %   | 0.1 %  | 0.1 %  | 0.1 %  |
| residual ripple  |   |   |  |  |  |
| • maximum  | 200 mV  | 200 mV  | 200 mV   | 200 mV   | 200 mV   |
| • typical  | 30 mV   | 30 mV   | 30 mV  | 30 mV  | 30 mV  |
| voltage peak   |   |   |  |  |  |
| • maximum  | 300 mV  | 300 mV  | 300 mV   | 300 mV   | 300 mV   |
| • typical  | 50 mV   | 50 mV   | 50 mV  | 50 mV  | 50 mV  |
| adjustable output voltage  |   | 22.2 ... 26.4 V   | 22.2 ... 26.4 V  | 22.2 ... 26.4 V  | 22.2 ... 26.4 V  |
| product function output voltage adjustable   | No  | Yes   | Yes  | Yes  | Yes  |
| type of output voltage setting   |   | via potentiometer   | via potentiometer  | via potentiometer  | via potentiometer  |
| display version for normal operation   | Green LED for output voltage OK   | Green LED for output voltage OK   | Green LED for output voltage OK  | Green LED for output voltage OK  | Green LED for output voltage OK  |

# LOGO! logic module

## LOGO!Power

### 1-phase, 24 V DC

#### Technical specifications

| Article number  | 6EP3330-6SB00-0AY0  | 6EP3331-6SB00-0AY0  | 6EP3332-6SB00-0AY0  | 6EP3333-6SB00-0AY0  | 6EP3333-6SC00-0AY0  |
|---|---|---|---|---|---|
| Product   | LOGO!Power  | LOGO!Power  | LOGO!Power  | LOGO!Power  | LOGO!Power EX   |
| Power supply, type  | 24 V/0.6 A  | 24 V/1.3 A  | 24 V/2.5 A  | 24 V/4 A  | 24 V/4 A  |
| behavior of the output voltage when switching on  | No overshoot of $V_{out}$ (soft start)                                    | No overshoot of $V_{out}$ (soft start)                                    | No overshoot of $V_{out}$ (soft start)                                    | No overshoot of $V_{out}$ (soft start)                                    | No overshoot of $V_{out}$ (soft start)                                    |
| response delay maximum  | 0.5 s   | 0.5 s   | 0.5 s   | 0.5 s   | 0.5 s   |
| voltage increase time of the output voltage   |   |   |   |   |   |
| • typical   | 100 ms  | 100 ms  | 100 ms  | 100 ms  | 100 ms  |
| output current  |   |   |   |   |   |
| • rated value   | 0.6 A   | 1.3 A   | 2.5 A   | 4 A   | 4 A   |
| • rated range   | 0 ... 0.6 A; +55 ... +70 °C: Derating 2%/K                                | 0 ... 1.3 A; +55 ... +70 °C: Derating 2%/K                                | 0 ... 2.5 A; +55 ... +70 °C: Derating 2%/K                                | 0 ... 4 A; +55 ... +70 °C: Derating 2%/K                                  | 0 ... 4 A; +55 ... +70 °C: Derating 2%/K                                  |
| supplied active power typical   | 14.4 W  | 31.2 W  | 60 W  | 96 W  | 96 W  |
| product feature   |   |   |   |   |   |
| • bridging of equipment   | No  | Yes   | Yes   | Yes   | Yes   |
| number of parallel-switched equipment resources for increasing the power  |   | 2   | 2   | 2   |   |
| <b>Efficiency</b>   |   |   |   |   |   |
| efficiency in percent   | 81 %  | 86 %  | 90 %  | 89 %  | 89 %  |
| power loss [W]  |   |   |   |   |   |
| • at rated output voltage for rated value of the output current typical   | 3 W   | 5 W   | 7 W   | 12 W  | 12 W  |
| • during no-load operation maximum  | 0.3 W   | 0.3 W   | 0.3 W   | 0.3 W   | 0.3 W   |
| <b>Closed-loop control</b>  |   |   |   |   |   |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.2 %   | 0.2 %   | 0.2 %   | 0.2 %   | 0.2 %   |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical              | 2 %   | 1 %   | 2 %   | 2 %   | 2 %   |
| setting time  |   |   |   |   |   |
| • load step 10 to 90% typical   | 1 ms  | 1 ms  | 1 ms  | 1 ms  | 1 ms  |
| • load step 90 to 10% typical   | 1 ms  | 1 ms  | 1 ms  | 1 ms  | 1 ms  |
| <b>Protection and monitoring</b>  |   |   |   |   |   |
| design of the overvoltage protection  | Yes, according to EN 60950-1  | Yes, according to EN 60950-1  | Yes, according to EN 60950-1  | Yes, according to EN 60950-1  | Yes, according to EN 60950-1  |
| response value current limitation typical   | 0.8 A   | 1.7 A   | 3.2 A   | 5 A   | 5 A   |
| property of the output short-circuit proof  | Yes   | Yes   | Yes   | Yes   | Yes   |
| design of short-circuit protection  | Constant current characteristic   | Constant current characteristic   | Constant current characteristic   | Constant current characteristic   | Constant current characteristic   |
| enduring short circuit current RMS value  |   |   |   |   |   |
| • maximum   | 0.8 A   | 1.7 A   | 3.2 A   | 5 A   | 5 A   |
| overcurrent overload capability in normal operation   | overload capability 150% $I_{out}$ rated typ. 200 ms                      | overload capability 150% $I_{out}$ rated typ. 200 ms                      | overload capability 150% $I_{out}$ rated typ. 200 ms                      | overload capability 150% $I_{out}$ rated typ. 200 ms                      | overload capability 150% $I_{out}$ rated typ. 200 ms                      |
| display version for overload and short circuit  | -   | -   | -   | -   | -   |
| measuring point for output current  |   | 50 mV = ^ 1.3 A   | 50 mV = ^ 2.5 A   | 50 mV = ^ 4 A   | 50 mV = ^ 4 A   |
| overcurrent overload capability when switching on   | 150% $I_{out}$ rated typ. 200 ms  | 150% $I_{out}$ rated typ. 200 ms  | 150% $I_{out}$ rated typ. 200 ms  | 150% $I_{out}$ rated typ. 200 ms  | 150% $I_{out}$ rated typ. 200 ms  |
| <b>Safety</b>   |   |   |   |   |   |
| galvanic isolation between input and output   | Yes   | Yes   | Yes   | Yes   | Yes   |
| galvanic isolation  | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178 | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178 | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178 | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178 | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178 |
| operating resource protection class   | Class II (without protective conductor)                                   | Class II (without protective conductor)                                   | Class II (without protective conductor)                                   | Class II (without protective conductor)                                   | Class II (without protective conductor)                                   |
| protection class IP   | IP20  | IP20  | IP20  | IP20  | IP20  |

## Technical specifications

| Article number                                   | 6EP3330-6SB00-0AY0  | 6EP3331-6SB00-0AY0  | 6EP3332-6SB00-0AY0  | 6EP3333-6SB00-0AY0   | 6EP3333-6SC00-0AY0                                 |
|--|---|---|---|--|--|
| Product  | LOGO!Power  | LOGO!Power  | LOGO!Power  | LOGO!Power   | LOGO!Power EX                                      |
| Power supply, type                               | 24 V/0.6 A  | 24 V/1.3 A  | 24 V/2.5 A  | 24 V/4 A   | 24 V/4 A   |
| <b>Approvals</b>                                 |   |   |   |  |  |
| certificate of suitability                       |   |   |   |  |  |
| • CE marking                                     | Yes   | Yes   | Yes   | Yes  | Yes  |
| • UL approval                                    | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273 | No   |
| • CSA approval                                   | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273,<br>NEC class 2<br>(acc. to UL 1310) | Yes;<br>cULus-Listed (UL 508,<br>CSA C22.2 No. 107.1),<br>File E197259;<br>cURus-Recognized<br>(UL 60950, CSA C22.2<br>No. 60950),<br>File E151273 | No   |
| • cCSAus, Class 1, Division 2                    | No  | No  | No  | No   | No   |
| • ATEX   | No  | No  | No  | No   | Yes  |
| certificate of suitability                       |   |   |   |  |  |
| • IECEx  | No  | No  | No  | No   | Yes  |
| • NEC Class 2                                    | Yes   | Yes   | Yes   | No   | No   |
| • ULhazloc approval                              | No  | No  | No  | No   | No   |
| • FM registration                                | No  | No  | No  | No   | Yes  |
| type of certification CB-certificate             | Yes   | Yes   | Yes   | Yes  |  |
| certificate of suitability                       |   |   |   |  |  |
| • EAC approval                                   | Yes   | Yes   | Yes   | Yes  |  |
| certificate of suitability shipbuilding approval | Yes   | Yes   | Yes   | Yes  | No   |
| shipbuilding approval                            | ABS, BV, DNV GL, LRS  | ABS, BV, DNV GL, LRS  | ABS, BV, DNV GL, LRS  | ABS, BV, DNV GL, LRS   | available soon                                     |
| Marine classification association                |   |   |   |  |  |
| • American Bureau of Shipping Europe Ltd. (ABS)  | Yes   | Yes   | Yes   | Yes  | No   |
| • French marine classification society (BV)      | Yes   | Yes   | Yes   | Yes  | No   |
| • DNV GL   | Yes   | Yes   | Yes   | Yes  | No   |
| • Lloyds Register of Shipping (LRS)              | Yes   | Yes   | Yes   | Yes  | No   |
| • Nippon Kaiji Kyokai (NK)                       | No  | No  | No  | No   | No   |
| <b>EMC</b>                                       |   |   |   |  |  |
| standard   |   |   |   |  |  |
| • for emitted interference                       | EN 55022 Class B  | EN 55022 Class B  | EN 55022 Class B  | EN 55022 Class B   | EN 55022 Class B                                   |
| • for mains harmonics limitation                 | not applicable  | not applicable  | not applicable  | EN 61000-3-2   | EN 61000-3-2                                       |
| • for interference immunity                      | EN 61000-6-2  | EN 61000-6-2  | EN 61000-6-2  | EN 61000-6-2   | EN 61000-6-2                                       |
| <b>environmental conditions</b>                  |   |   |   |  |  |
| ambient temperature                              |   |   |   |  |  |
| • during operation                               | -25 ... +70 °C;<br>with natural<br>convection   | -25 ... +70 °C;<br>with natural<br>convection   | -25 ... +70 °C;<br>with natural<br>convection   | -25 ... +70 °C;<br>with natural<br>convection  | -25 ... +70 °C;<br>with natural<br>convection      |
| • during transport                               | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C   | -40 ... +85 °C                                     |
| • during storage                                 | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C  | -40 ... +85 °C   | -40 ... +85 °C                                     |
| environmental category according to IEC 60721    | Climate class 3K3,<br>5 ... 95%<br>no condensation  | Climate class 3K3,<br>5 ... 95%<br>no condensation  | Climate class 3K3,<br>5 ... 95%<br>no condensation  | Climate class 3K3,<br>5 ... 95%<br>no condensation   | Climate class 3K3,<br>5 ... 95%<br>no condensation |



**LOGO! logic module**

LOGO!Power

**1-phase, 24 V DC****Technical specifications**

| Article number   | <b>6EP3330-6SB00-0AY0</b>   | <b>6EP3331-6SB00-0AY0</b>   | <b>6EP3332-6SB00-0AY0</b>   | <b>6EP3333-6SB00-0AY0</b>   | <b>6EP3333-6SC00-0AY0</b>   |
|--|---|---|---|---|---|
| Product  | LOGO!Power  | LOGO!Power  | LOGO!Power  | LOGO!Power  | LOGO!Power EX   |
| Power supply, type                                       | 24 V/0.6 A  | 24 V/1.3 A  | 24 V/2.5 A  | 24 V/4 A  | 24 V/4 A  |
| <b>Mechanics</b>   |   |   |   |   |   |
| type of electrical connection                            | screw-type terminals  | screw-type terminals  | screw-type terminals  | screw-type terminals  | screw-type terminals  |
| • at input   | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           | L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded           |
| • at output  | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       | +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                       |
| • for auxiliary contacts                                 | -   | -   | -   | -   | -   |
| width of the enclosure                                   | 18 mm   | 36 mm   | 54 mm   | 72 mm   | 72 mm   |
| height of the enclosure                                  | 90 mm   | 90 mm   | 90 mm   | 90 mm   | 90 mm   |
| depth of the enclosure                                   | 53 mm   | 53 mm   | 53 mm   | 53 mm   | 53 mm   |
| required spacing   |   |   |   |   |   |
| • top  | 20 mm   | 20 mm   | 20 mm   | 20 mm   | 20 mm   |
| • bottom   | 20 mm   | 20 mm   | 20 mm   | 20 mm   | 20 mm   |
| • left   | 0 mm  | 0 mm  | 0 mm  | 0 mm  | 0 mm  |
| • right  | 0 mm  | 0 mm  | 0 mm  | 0 mm  | 0 mm  |
| net weight   | 0.07 kg   | 0.12 kg   | 0.2 kg  | 0.29 kg   | 0.29 kg   |
| product feature of the enclosure housing can be lined up | Yes   | Yes   | Yes   | Yes   | Yes   |
| fastening method   | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions           |
| MTBF at 40 °C  | 4 415 040 h   | 3 094 996 h   | 2 864 520 h   | 2 391 480 h   | 2 391 480 h   |
| other information  | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

## Overview



Thanks to its stepped profile design, the SIPLUS LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide-range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 24 V in four performance classes. The 24 V versions are ideal for supplying SIPLUS LOGO! PLCs with the corresponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to integrated current monitor (for devices at least 36 mm wide). The extended temperature range enables a host of additional applications.

### Main product highlights

- 24 V DC / 0.6 A, 1.3 A, 2.5 A and 4.0 A
- Narrow unit with width of 18 mm, 36 mm, 54 mm or 72 mm and overall depth of 53 mm in LOGO! design
- Flexible mounting: top hat DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: up to 90% efficiency over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- Global use: International certifications such as UL, CSA, FM or ATEX

## Ordering data

## Article No.

**SIPLUS LOGO!Power 24 V 1.3 A**  
 Extended temperature range and exposure to environmental substances

Input 100 ... 240 V AC  
 Output 24 V DC, 1.3 A

**6AG1331-6SB00-7AY0**

**SIPLUS LOGO!Power 24 V 2.5 A**  
 Extended temperature range and exposure to environmental substances

Input 100 ... 240 V AC  
 Output 24 V DC, 2.5 A

**6AG1332-6SB00-7AY0**

**SIPLUS LOGO!Power 24 V 4 A**  
 Extended temperature range and exposure to environmental substances

Input 100 ... 240 V AC  
 Output 24 V DC, 4 A

**6AG1333-6SB00-7AY0**

# LOGO! logic module

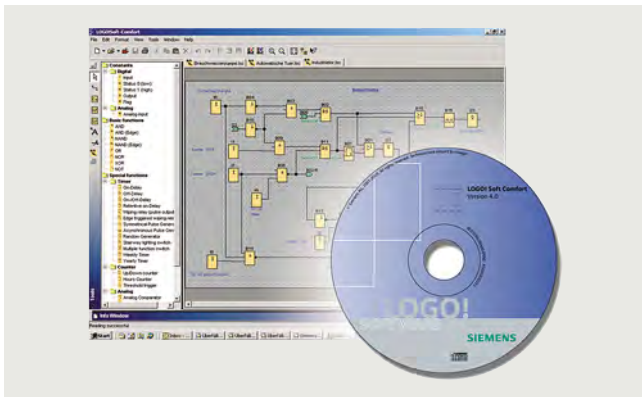
## SIPLUS LOGO!Power

### SIPLUS LOGO!Power

#### Technical specifications

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| Article number  | 6AG1331-6SB00-7AY0   | 6AG1332-6SB00-7AY0   | 6AG1333-6SB00-7AY0   |
|---|--|--|--|
| Based on  | 6EP3331-6SB00-0AY0   | 6EP3332-6SB00-0AY0   | 6EP3333-6SB00-0AY0   |
| Product   | SIPLUS LOGO!Power  | SIPLUS LOGO!Power  | SIPLUS LOGO!Power  |
| Power supply, type  | 24 V/1.3 A   | 24 V/2.5 A   | 24 V/4 A   |
| <b>environmental conditions</b>   |  |  |  |
| ambient temperature   |  |  |  |
| <ul style="list-style-type: none"> <li>in horizontal mounting position during operation</li> <li>during storage and transport</li> </ul>                | -40; Startup @ -25 °C ... +70 °C; with natural convection<br>-40 ... +85 °C  | -40; Startup @ -25 °C ... +70 °C; with natural convection<br>-40 ... +85 °C  | -40; Startup @ -25 °C ... +70 °C; with natural convection<br>-40 ... +85 °C  |
| installation altitude at height above sea level maximum   | 6 000 m  | 6 000 m  | 6 000 m  |
| ambient condition relating to ambient temperature - air pressure - installation altitude  | In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m | In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m | In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m |
| relative humidity with condensation according to IEC 60068-2-38 maximum   | 100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation  | 100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation  | 100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation  |
| chemical resistance to commercially available cooling lubricants  | Yes; incl. diesel and oil droplets in the air  | Yes; incl. diesel and oil droplets in the air  | Yes; incl. diesel and oil droplets in the air  |
| resistance to biologically active substances conformity according to EN 60721-3-3   | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request  | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request  | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request  |
| resistance to chemically active substances conformity according to EN 60721-3-3   | Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  | Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  | Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  |
| resistance to mechanically active substances conformity according to EN 60721-3-3   | Yes; Class 3S4 incl. sand, dust  | Yes; Class 3S4 incl. sand, dust  | Yes; Class 3S4 incl. sand, dust  |
| resistance to biologically active substances conformity according to EN 60721-3-6   | Yes; Class 6B2 mold, fungal, sponge spores (except fauna)  | Yes; Class 6B2 mold, fungal, sponge spores (except fauna)  | Yes; Class 6B2 mold, fungal, sponge spores (except fauna)  |
| resistance to chemically active substances conformity according to EN 60721-3-6   | Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  | Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  | Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)  |
| resistance to mechanically active substances conformity according to EN 60721-3-6   | Yes; Class 6S3 incl. sand, dust  | Yes; Class 6S3 incl. sand, dust  | Yes; Class 6S3 incl. sand, dust  |
| coating for equipped printed circuit board according to EN 61086  | Yes; Class 2 for high availability   | Yes; Class 2 for high availability   | Yes; Class 2 for high availability   |
| type of coating protection against pollution according to EN 60664-3  | Yes; Type 1 protection   | Yes; Type 1 protection   | Yes; Type 1 protection   |
| type of test of the coating according to MIL-I-46058C   | Yes; Discoloration of the coating during service life possible   | Yes; Discoloration of the coating during service life possible   | Yes; Discoloration of the coating during service life possible   |
| product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal Coating, Class A  | Yes; Conformal Coating, Class A  | Yes; Conformal Coating, Class A  |

**Overview**


- The user-friendly software for generating switching programs on the PC for single-user mode and network mode
- Generation of switching programs in a function block diagram (FBD) or ladder logic (LAD)
- Furthermore, testing, simulation, online testing and archiving of the switching programs
- Professional documentation with the help of various comment and print functions

**Minimum system requirements**
Windows XP (32-bit), 7 (32/64-bit) or 8 (32/64-bit)

- PC Pentium IV.
- 150 MB free disk capacity.
- 256 MB RAM.
- SVGA graphics card with minimum resolution 800 x 600 (256 colors).
- DVD-ROM

Mac OS X

- Mac OS X 10.4

Linux

- Tested with SUSE Linux 11.3 SP2, kernel 3.0.76
- Runs on all Linux distributions on which Java 2 runs.
- Please refer to your relevant Linux distribution for the necessary hardware requirements.

**Ordering data**
**LOGO!Soft Comfort V8**

For programming on the PC in LAD/FBD; runs on Windows 10, 8, 7, XP, Linux and Mac OSX; on DVD

**Article No.**
**6ED1058-0BA08-0YA1**

## LOGO! logic module

### LOGO! Starter Kits

#### LOGO! Starter Kits

##### Overview



There are now three LOGO! 8 Starter Kits for price-conscious beginners – each individually configured for the specific requirements.

- LOGO! Starter Kit 12/24RCE;  
With LOGO! 12/24RCE, power supply, screwdriver, in Systainer
- LOGO! Starter Kit 230 RCE;  
With LOGO! 230RCE, power supply, screwdriver, in Systainer
- LOGO! Starter Kit 12/24 V;  
With LOGO! 12/24RCEO, LOGO! TD, power supply, screwdriver, in Systainer

With these low-cost complete packages, users can familiarize themselves quickly and easily with the advantages and possibilities of the logic module. LOGO! has been used successfully for many years in industry and trade throughout the world. It solves switching and control tasks conveniently and cost-effectively.

##### Ordering data

##### Article No.

###### LOGO! Starter Kits

In TANOS Box, with LOGO! Soft Comfort V8, WinCC Basic, Ethernet cable

###### LOGO! Starter Kit 12/24RCE

With LOGO! 12/24RCE, power supply, screwdriver, in Systainer

###### LOGO! Starter Kit 230RCE

With LOGO! 230RCE, power supply, screwdriver, in Systainer

###### LOGO! Starter Kit 12/24 V

With LOGO! 12/24RCEO, LOGO! TD, power supply, screwdriver, in Systainer

6ED1057-3BA01-0AA8

6ED1057-3BA03-0AA8

6ED1057-3BA11-0AA8

**Overview**


- Switching module for the direct switching of resistive loads and motors

**Ordering data**

**LOGO!Contact**  
 Switching module for direct switching of resistive loads up to 20 A and motors up to 4 kW  
 Switching voltage 24 V  
 Switching voltage 230 V

**Article No.**

**6ED1057-4CA00-0AA0**  
**6ED1057-4EA00-0AA0**

**2**
**Technical specifications**

| Article number                              | <b>6ED1057-4CA00-0AA0</b>           | <b>6ED1057-4EA00-0AA0</b>           |
|---|-------------------------------------|-------------------------------------|
|   | LOGO! Contact Mod., DC 24V, 3NO/1NC | LOGO! Contact Mod., AC 230V,3NO/1NC |
| <b>Supply voltage</b>                       |                                     |                                     |
| Rated value (DC)                            | Yes                                 |                                     |
| • 24 V DC                                   |                                     |                                     |
| Rated value (AC)                            |                                     | Yes                                 |
| • 230 V AC                                  |                                     |                                     |
| <b>Standards, approvals, certificates</b>   |                                     |                                     |
| CE mark                                     | Yes                                 | Yes                                 |
| <b>Ambient conditions</b>                   |                                     |                                     |
| <b>Ambient temperature during operation</b> |                                     |                                     |
| • min.                                      | -25 °C                              | -25 °C                              |
| • max.                                      | 55 °C                               | 55 °C                               |
| <b>Dimensions</b>                           |                                     |                                     |
| Width                                       | 36 mm                               | 36 mm                               |
| Height                                      | 72 mm                               | 72 mm                               |
| Depth                                       | 55 mm                               | 55 mm                               |
| <b>Weights</b>                              |                                     |                                     |
| Weight, approx.                             | 160 g                               | 160 g                               |

**LOGO! logic module**

LOGO! Accessories

**LOGO! mounting kit****Overview**

2



LOGO! and SIPLUS LOGO! are designed for quick and easy mounting on top hat DIN rails. With the mounting kit, these devices can also be easily and safely installed in front panels. If the supplied washer and seals are used, the devices are reliably protected against harsh environmental conditions up to the IP65 degree of protection.

**Ordering data****Article No.****Front panel mounting kit**

Width 4 U, with keys

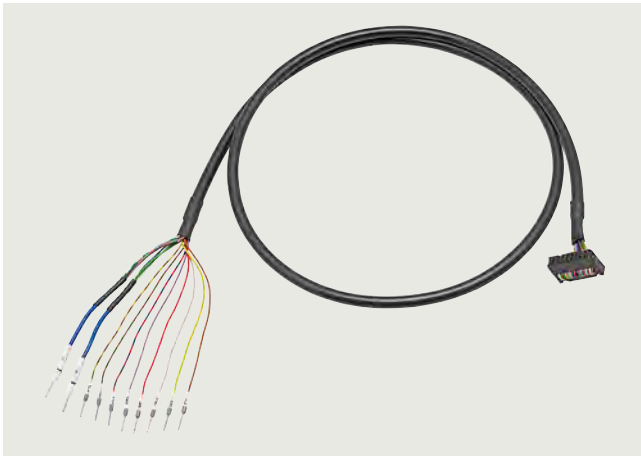
**6AG1057-1AA00-0AA3**

Width 8 U, with keys

**6AG1057-1AA00-0AA2**



## Overview



SIMATIC TOP connect universal connecting cable

The wiring of the

- SIMATIC S7-1500 IO (25 mm)
- SIMATIC ET 200SP
- SIMATIC S7-1200
- LOGO!

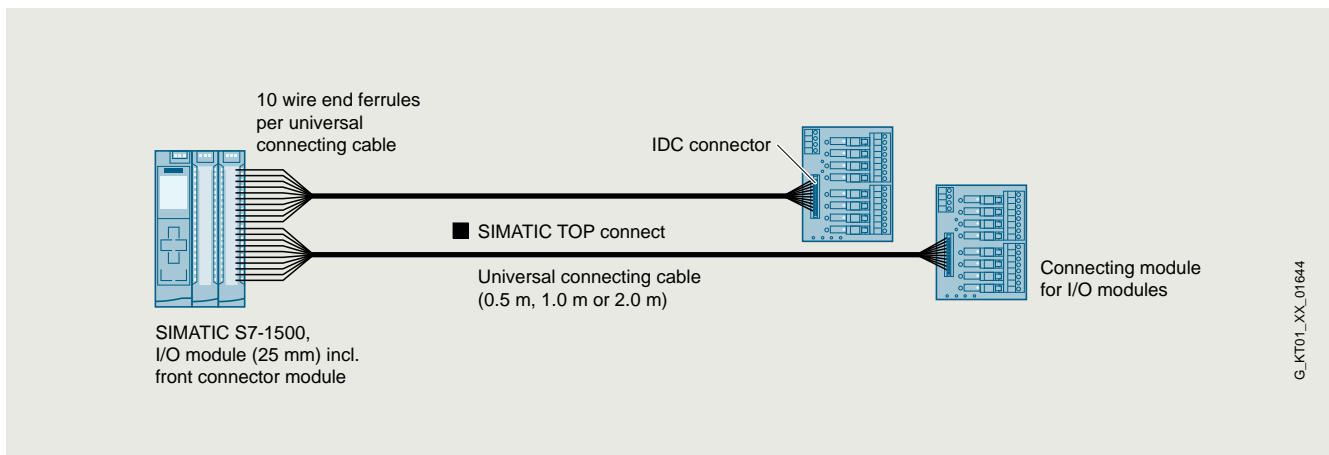
with the sensors/actuators is a significant factor with respect to time/cost overhead during configuration, control cabinet design, procurement and ease of servicing. The SIMATIC TOP connect system cabling makes connection easy, fast and secure.

## Design

The unshielded universal connection cable is offered for a wide range of control cabinet concepts.

It comprises:

- 16-pin round cable with a core cross-section of 0.14 mm<sup>2</sup>, pre-assembled with wire end ferrules for connection to the controller:
  - Labeled with "0" ... "7" for the control inputs/outputs
  - Labeled with "M" for mass
  - Labeled with "L+" for 24 V DC potential
- 16-pin ID (insulation displacement) connector for connection to the SIMATIC TOP connect connection modules for 8 I/Os:
  - 3-wire connection using the appropriate connection module for quick, error-free wiring
  - Galvanic isolation and adaptation using a coupling relay for easy implementation of potential groups in the system
  - High output current (up to 4 A), even for higher switching frequencies, using an optocoupler module (overload and short-circuit proof)
  - Implementation of isolating terminals using switch modules enabling individual signals to be measured
  - Channel-wise protection of I/Os using a fuse module with a thermal fuse



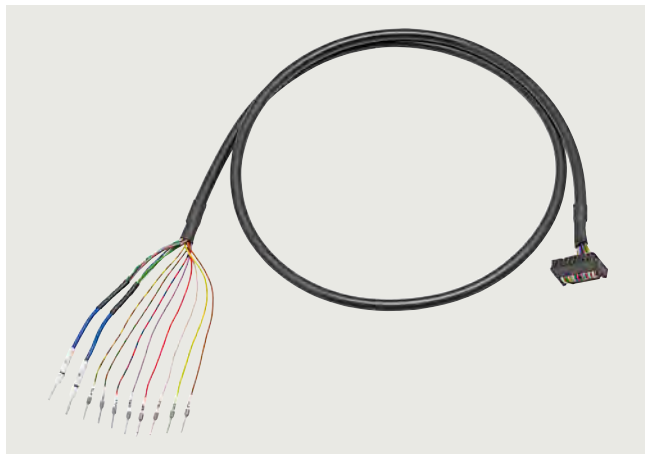
SIMATIC TOP connect universal connection cable

**LOGO! logic module**

LOGO! Accessories

**System cabling for SIMATIC S7-1500 IO (25 mm), ET 200SP, S7-1200 and LOGO!****Overview Universal connecting cable**

2



SIMATIC TOP connect universal connecting cable

The universal connecting cable constitutes the link between the standard connection of the SIMATIC S7-1500 IO (25 mm), SIMATIC ET 200SP, SIMATIC S7-1200 or LOGO! and the SIMATIC TOP connect terminal module. It transmits 8 signals and the supply voltage. The connecting cable is available in lengths of 0.5 m / 1.0 m / 2.0 m. the maximum technically feasible length is 30 m.

**Ordering data****Article No.**

**Universal connecting cables for SIMATIC S7-1500 IO (25 mm), SIMATIC ET 200SP, SIMATIC S7-1200 and LOGO!**

**16 x 0.14 mm<sup>2</sup> unshielded**

- 0.5 m
- 1.0 m
- 2.0 m

**6ES7923-0BA50-0FB0**  
**6ES7923-0BB00-0FB0**  
**6ES7923-0BC00-0FB0**

**Overview Connection modules**

The connection modules are used instead of conventional terminal blocks and act as the interface between the PLC and signals from the field. All digital modules with 8 I/Os can be used.

**Ordering data****Article No.****TP1 connection module**

For 1-conductor connection, for 16-pin connecting cables

- Push-in terminals without LEDs
- Screw-type terminals without LEDs
- Push-in terminals with LEDs
- Screw-type terminals with LEDs

**6ES7924-0AA20-0AC0**  
**6ES7924-0AA20-0AA0**  
**6ES7924-0AA20-0BC0**  
**6ES7924-0AA20-0BA0**

**TP3 connection module**

For 3-conductor connection, for 16-pin connecting cables

- Push-in terminals without LEDs
- Screw-type terminals without LEDs
- Push-in terminals with LEDs
- Screw-type terminals with LEDs
- Push-in terminals with LEDs and one isolating terminal per channel
- Screw-type terminals with LEDs and one isolating terminal per channel
- Push-in terminals with LEDs and fuse per channel
- Screw-type terminals with LEDs and fuse per channel

**6ES7924-0CA20-0AC0**  
**6ES7924-0CA20-0AA0**  
**6ES7924-0CA20-0BC0**  
**6ES7924-0CA20-0BA0**  
**6ES7924-0CH20-0BC0**  
**6ES7924-0CH20-0BA0**  
**6ES7924-0CL20-0BC0**  
**6ES7924-0CL20-0BA0**

**TPRo connection module**

Relay module for 8 outputs, relay as normally open contact

- Push-in terminals with LEDs
- Screw-type terminals with LEDs

**6ES7924-0BD20-0BC0**  
**6ES7924-0BD20-0BA0**

**TPRi connection module**

Relay module for 8 inputs (230 V AC), relay as normally open contact

- Push-in terminals with LEDs
- Screw-type terminals with LEDs

**6ES7924-0BE20-0BC0**  
**6ES7924-0BE20-0BA0**

**TPRi connection module**

Relay module for 8 inputs (110 V AC), relay as normally open contact

- Push-in terminals with LEDs
- Screw-type terminals with LEDs

**6ES7924-0BG20-0BC0**  
**6ES7924-0BG20-0BA0**

**TPOo connection module**

Optocoupler module for 8 outputs (max. 24 V DC/4 A)

- Push-in terminals with LEDs
- Screw-type terminals with LEDs

**6ES7924-0BF20-0BC0**  
**6ES7924-0BF20-0BA0**