

OFFICIAL DOCUMENT PACKAGE

# Manufacturer's Manual

Amikon cover with selected official Siemens technical pages

SIEMENS LOGO! DIGITAL EXPANSION

## 6ED1055-1CB10-0BA2

LOGO! DM16 24 EXPANSION MODULE

Selected official pages cover housing dimensions, approximate weight, supply requirements and input/output ratings.

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Siemens LOGO! System Manual, 06/2023, A5E33039675-AL

Pages 343 and 352-353

Use the LOGO! DM16 24 column. Adjacent model columns remain unchanged to preserve the original manufacturer pages and notes.

# Technical data

## A.1 General technical data

| Criterion                                                                                                                                                                                                               | Tested in accordance with | Values                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>LOGO! Base Modules (0BA8)</b><br><b>LOGO! Basic</b><br>Dimensions (WxHxD)<br>Weight <ul style="list-style-type: none"> <li>Modules with relay output</li> <li>Modules with transistor output</li> </ul> Installation |                           | 71.5 x 90 x 60 mm<br><br>Approx. 240 g<br>Approx. 195 g<br>On a 35 mm profile rail four module widths or wall mounting |
| <b>LOGO! Pure</b><br>Dimensions (WxHxD)<br>Weight <ul style="list-style-type: none"> <li>Modules with relay output</li> <li>Modules with transistor output</li> </ul> Installation                                      |                           | 71.5 x 90 x 58 mm<br><br>Approx. 200 g<br>Approx. 160 g<br>On a 35 mm profile rail four module widths or wall mounting |
| <b>LOGO! expansion modules DM16...</b><br>Dimensions (WxHxD)<br>Weight <ul style="list-style-type: none"> <li>Modules with relay output</li> <li>Modules with transistor output</li> </ul> Installation                 |                           | 71.5 x 90 x 58 mm<br><br>Approx. 225 g<br>Approx. 165 g<br>On a 35 mm profile rail four module widths or wall mounting |
| <b>LOGO! expansion modules DM8...</b><br>Dimensions (WxHxD)<br>Weight <ul style="list-style-type: none"> <li>Modules with relay output</li> <li>Modules with transistor output</li> </ul> Installation                  |                           | 35.5 x 90 x 58 mm<br><br>Approx. 130 g<br>Approx. 95 g<br>On a 35 mm profile rail two module widths or wall mounting   |
| <b>LOGO! expansion modules AM...</b><br>Dimensions (WxHxD)<br>Weight<br>Installation                                                                                                                                    |                           | 35.5 x 90 x 58 mm<br>Approx. 95 g<br>On a 35 mm profile rail two module widths or wall mounting                        |
| <b>LOGO! TDE (Text Display with Ethernet interfaces)</b><br>Dimensions (WxHxD)<br>Weight<br>Installation                                                                                                                |                           | 128.2 x 86 x 38.7 mm<br>Approx. 220 g<br>Bracket mounting                                                              |

|                                            | LOGO! 24CE<br>LOGO! 24CEo                 |
|--------------------------------------------|-------------------------------------------|
| Output current                             | Max. 0.3 A per channel                    |
| Short circuit-proof and overload-proof     | Yes                                       |
| Short circuit current limitation           | Approx. 1 A per channel                   |
| Derating                                   | None; across the entire temperature range |
| Short circuit-proof cos 1                  | --                                        |
| Short circuit-proof cos 0.5 to 0.7         | --                                        |
| Parallel output circuit for power increase | Not permitted                             |
| Protection of output relay (if desired)    | --                                        |
| Line length (unshielded)                   | Max. 100 m                                |
| <b>Switching rate <sup>2)</sup></b>        |                                           |
| Mechanical                                 | --                                        |
| Electrical                                 | 10 Hz                                     |
| Ohmic load/lamp load                       | 10 Hz                                     |
| Inductive load                             | 0.5 Hz                                    |

<sup>1)</sup> When you switch on LOGO! 24CE/24CEo, LOGO! DM8 24 or LOGO! DM16 24, the CPU sends signal 1 to the digital outputs for about 50 µs. Take this into account, especially when using devices that react to short pulses.

<sup>2)</sup> The maximum switching rate is only dependent on the switching program's cycle time.

## A.5 Technical data: LOGO! DM8 24 and LOGO! DM16 24

|                                     | LOGO! DM8 24                                                                            | LOGO! DM16 24                                                                           |
|-------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Power supply</b>                 |                                                                                         |                                                                                         |
| Input voltage                       | 24 VDC                                                                                  | 24 VDC                                                                                  |
| Permissible range                   | 20.4 VDC to 28.8 VDC                                                                    | 20.4 VDC to 28.8 VDC                                                                    |
| Reverse polarity protection         | Yes                                                                                     | Yes                                                                                     |
| Permissible mains frequency         | --                                                                                      | --                                                                                      |
| Power consumption from 24 VDC       | 25 mA to 40 mA (no load on digital output)<br>1.2 A (with max. load on digital output ) | 25 mA to 50 mA (no load on digital output)<br>2.4 A (with max. load on digital output ) |
| Power loss at 24 V                  | 0.6 W to 1.0 W                                                                          | 0.6 W to 1.2 W                                                                          |
| <b>Digital inputs</b>               |                                                                                         |                                                                                         |
| Number                              | 4                                                                                       | 8                                                                                       |
| Electrical isolation                | No                                                                                      | No                                                                                      |
| Number of high speed inputs         | 0                                                                                       | 0                                                                                       |
| Input frequency                     | <ul style="list-style-type: none"> <li>• Max. 4 Hz</li> <li>• --</li> </ul>             | <ul style="list-style-type: none"> <li>• Max. 4 Hz</li> <li>• --</li> </ul>             |
| Max. continuous permissible voltage | 28.8 VDC                                                                                | 28.8 VDC                                                                                |

|                                            | LOGO! DM8 24                               | LOGO! DM16 24                              |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Input voltage                              | L+                                         | L+                                         |
| • Signal 0                                 | • < 5 VDC                                  | • < 5 VDC                                  |
| • Signal 1                                 | • > 12 VDC                                 | • > 12 VDC                                 |
| Input current at                           |                                            |                                            |
| • Signal 0                                 | • < 0.88 mA                                | • < 0.85 mA                                |
| • Signal 1                                 | • > 2.1 mA                                 | • > 2 mA                                   |
| Delay time at                              |                                            |                                            |
| • 0 to 1                                   | • Typ. 1.5 ms                              | • Typ. 1.5 ms                              |
| • 1 to 0                                   | • Typ. 1.5 ms                              | • Typ. 1.5 ms                              |
| Line length (unshielded)                   | Max. 100 m                                 | Max. 100 m                                 |
| <b>Digital outputs</b>                     |                                            |                                            |
| Number                                     | 4                                          | 8                                          |
| Output type                                | Transistor, current-sourcing <sup>1)</sup> | Transistor, current-sourcing <sup>1)</sup> |
| Electrical isolation                       | No                                         | No                                         |
| In groups of                               | --                                         | --                                         |
| Control of a digital input                 | Yes                                        | Yes                                        |
| Output voltage                             | ≤ Supply voltage                           | ≤ Supply voltage                           |
| Output current                             | Max. 0.3 A per channel                     | Max. 0.3 A per channel                     |
| Short circuit-proof and over-load-proof    | Yes                                        | Yes                                        |
| Short circuit current limitation           | Approx. 1 A per channel                    | Approx. 1 A per channel                    |
| Derating                                   | None; across the entire temperature range  | None; across the entire temperature range  |
| Short circuit-proof cos 1                  | --                                         | --                                         |
| Short circuit-proof cos 0.5 to 0.7         | --                                         | --                                         |
| Parallel output circuit for power increase | Not permitted                              | Not permitted                              |
| Protection of output relay (if desired)    | --                                         | --                                         |
| Line length (unshielded)                   | Max. 100 m                                 | Max. 100 m                                 |
| <b>Switching rate</b>                      |                                            |                                            |
| Mechanical                                 | --                                         | --                                         |
| Electrical                                 | 10 Hz                                      | 10 Hz                                      |
| Ohmic load/lamp load                       | 10 Hz                                      | 10 Hz                                      |
| Inductive load                             | 0.5 Hz                                     | 0.5 Hz                                     |

<sup>1)</sup> When you switch on LOGO! 24CE/24CEo, LOGO! DM8 24 or LOGO! DM16 24, the CPU sends signal 1 to the digital outputs for about 50 µs. Take this into account, especially when using devices that react to short pulses.