



SIMATIC ET 200AL, DI 8x 24 V DC, 4x M12, Degree of protection IP67

| General information   |   |
|---|---|
| Product type designation  | DI 8x24VDC  |
| HW functional status  | FS03  |
| Firmware version  | V1.0.x  |
| Product function  |   |
| • I&M data  | Yes; I&M0 to I&M3   |
| Engineering with  |   |
| • STEP 7 TIA Portal configurable/integrated from version        | STEP 7 V13 SP1 or higher  |
| • STEP 7 configurable/integrated from version                   | V5.5 SP4 Hotfix 7 or higher   |
| • PROFIBUS from GSD version/GSD revision                        | GSD as of Revision 5  |
| • PROFINET from GSD version/GSD revision                        | GSDML V2.3.1  |
| Supply voltage  |   |
| power supply according to NEC Class 2 required                  | No  |
| Load voltage 1L+  |   |
| • Rated value (DC)  | 24 V  |
| • permissible range, lower limit (DC)                           | 20.4 V  |
| • permissible range, upper limit (DC)                           | 28.8 V  |
| • Reverse polarity protection                                   | Yes; Against destruction; encoder power supply outputs applied with reversed polarity |
| Input current   |   |
| Current consumption (rated value)                               | 25 mA; without load   |
| from load voltage 1L+ (unswitched voltage)                      | 4 A; Maximum value  |
| from load voltage 2L+, max.                                     | 4 A; Maximum value  |
| Encoder supply  |   |
| Number of outputs   | 4   |
| 24 V encoder supply   |   |
| • Short-circuit protection                                      | Yes; per module, electronic   |
| • Output current, max.  | 0.7 A; Total current of all encoders  |
| Power loss  |   |
| Power loss, typ.  | 1.9 W   |
| Digital inputs  |   |
| Number of digital inputs  | 8   |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes   |
| Number of simultaneously controllable inputs                    |   |
| all mounting positions  |   |
| — up to 55 °C, max.   | 8   |
| Input voltage   |   |
| • Rated value (DC)  | 24 V  |
| • for signal "0"  | -30 to +5 V   |
| • for signal "1"  | +11 to +30V   |

|   |   |
|---|---|
| Input current   |   |
| • for signal "1", typ.  | 3.2 mA                                    |
| Input delay (for rated value of input voltage)                                  |   |
| for standard inputs   |   |
| — at "0" to "1", min.   | 1.2 ms                                    |
| — at "0" to "1", max.   | 4.8 ms                                    |
| — at "1" to "0", min.   | 1.2 ms                                    |
| — at "1" to "0", max.   | 4.8 ms                                    |
| Cable length  |   |
| • unshielded, max.  | 30 m                                      |
| <b>Encoder</b>  |   |
| Connectable encoders  |   |
| • 2-wire sensor   | Yes                                       |
| — permissible quiescent current (2-wire sensor), max.                           | 1.5 mA                                    |
| <b>Interrupts/diagnostics/status information</b>                                |   |
| Alarms  |   |
| • Diagnostic alarm  | Yes; Parameterizable                      |
| Diagnoses   |   |
| • Short-circuit   | Yes; Sensor supply to M; module by module |
| Diagnostics indication LED  |   |
| • Channel status display  | Yes; green LED                            |
| • for module diagnostics  | Yes; green/red LED                        |
| <b>Potential separation</b>   |   |
| between the load voltages   | Yes                                       |
| Potential separation channels   |   |
| • between the channels  | No  |
| • between the channels and backplane bus  | Yes                                       |
| • between the channels and the power supply of the electronics                  | No  |
| <b>Isolation</b>  |   |
| Isolation tested with   | 707 V DC (type test)                      |
| <b>Degree and class of protection</b>   |   |
| IP degree of protection   | IP65/67                                   |
| <b>Standards, approvals, certificates</b>                                       |   |
| Suitable for safety-related tripping of standard modules                        | Yes; From FS01                            |
| Highest safety class achievable for safety-related tripping of standard modules |   |
| • Performance level according to ISO 13849-1                                    | PL d                                      |
| • Category according to ISO 13849-1   | Cat. 3                                    |
| • SIL acc. to IEC 62061   | SIL 2                                     |
| <b>Ambient conditions</b>   |   |
| Ambient temperature during operation  |   |
| • min.  | -30 °C                                    |
| • max.  | 55 °C                                     |
| <b>connection method</b>  |   |
| Design of electrical connection for the inputs and outputs                      | M12, 5-pole                               |
| Design of electrical connection for supply voltage                              | M8, 4-pole                                |
| ET-Connection   |   |
| • ET-Connection   | M8, 4-pin, shielded                       |
| <b>Dimensions</b>   |   |
| Width   | 30 mm                                     |
| Height  | 159 mm                                    |
| Depth   | 40 mm                                     |
| <b>Weights</b>  |   |
| Weight, approx.   | 145 g                                     |

last modified:

8/16/2023 

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

[6ES71415AF000BA0](#)