

SIMATIC DP, ELECTRONIC MODULE DIGITAL,  
FOR ET 200B, W=235MM, 16 DO 24V DC, 2A,  
DEGR. OF PROTECT. IP20, STANDARD

| Supply voltage                                        |                                                         |
|-------------------------------------------------------|---------------------------------------------------------|
| 24 V DC                                               | Yes ; L1+, L2+, L3+, L4+, L5+; value at t < 0.5 s: 35 V |
| permissible range, lower limit (DC)                   | 18.5 V                                                  |
| permissible range, upper limit (DC)                   | 30.2 V                                                  |
| Input current                                         |                                                         |
| Current consumption, max.                             | 100 mA ; From L5+; logic                                |
| I <sup>2</sup> t                                      | 0.05 A <sup>2</sup> ·s ; with starting current inrush   |
| Power loss                                            |                                                         |
| Power loss, typ.                                      | 7 W                                                     |
| Hardware configuration                                |                                                         |
| Rack                                                  |                                                         |
| required terminal block                               | TB2/DC, TB2-4/DC, TB4/DC, TB4-4/DC                      |
| Digital outputs                                       |                                                         |
| Number of digital outputs                             | 16                                                      |
| Short-circuit protection                              | Yes ; Electronic                                        |
| Limitation of inductive shutdown voltage to           | typ. (L1+ to L4+) -50 V                                 |
| Controlling a digital input                           | Yes                                                     |
| Switching capacity of the outputs                     |                                                         |
| Lamp load, max.                                       | 10 W                                                    |
| Output voltage                                        |                                                         |
| Rated value (DC)                                      | 24 V                                                    |
| for signal "0", max.                                  | 2 V ; idling                                            |
| for signal "1", min.                                  | UE -3 V                                                 |
| Output current                                        |                                                         |
| for signal "1" permissible range for 0 to 60 °C, min. | 2 A ; in groups of 4                                    |
| for signal "0" residual current, max.                 | 1 mA                                                    |
| Switching frequency                                   |                                                         |
| with resistive load, max.                             | 100 Hz                                                  |
| with inductive load, max.                             | 0.5 Hz                                                  |
| on lamp load, max.                                    | 8 Hz                                                    |
| Total current of the outputs (per group)              |                                                         |

|                                                     |                                                                                                               |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>all mounting positions</b>                       |                                                                                                               |
| <b>up to 60 °C, max.</b>                            | 4 A                                                                                                           |
| <b>Cable length</b>                                 |                                                                                                               |
| <b>Cable length unshielded, max.</b>                | 100 m                                                                                                         |
| <b>Interfaces</b>                                   |                                                                                                               |
| <b>PROFIBUS DP</b>                                  |                                                                                                               |
| <b>Transmission rate, max.</b>                      | 12 Mbit/s                                                                                                     |
| <b>SYNC capability</b>                              | Yes                                                                                                           |
| <b>Communication functions</b>                      |                                                                                                               |
| <b>Bus protocol/transmission protocol</b>           | PROFIBUS DP                                                                                                   |
| <b>Interrupts/diagnostics/status information</b>    |                                                                                                               |
| <b>Diagnostics indication LED</b>                   |                                                                                                               |
| <b>Bus fault BF (red)</b>                           | Yes                                                                                                           |
| <b>Run mode RUN (green)</b>                         | Yes                                                                                                           |
| <b>Status indicator digital output (green)</b>      | Yes                                                                                                           |
| <b>Galvanic isolation</b>                           |                                                                                                               |
| <b>between electronic block and PROFIBUS DP</b>     | Yes                                                                                                           |
| <b>Galvanic isolation digital outputs</b>           |                                                                                                               |
| <b>Galvanic isolation digital outputs</b>           | Yes                                                                                                           |
| <b>between the channels, in groups of</b>           | 4                                                                                                             |
| <b>Degree and class of protection</b>               |                                                                                                               |
| <b>IP20</b>                                         | Yes                                                                                                           |
| <b>Ambient conditions</b>                           |                                                                                                               |
| <b>Operating temperature</b>                        |                                                                                                               |
| <b>horizontal installation, min.</b>                | 0 °C                                                                                                          |
| <b>horizontal installation, max.</b>                | 60 °C ; 40°C for other mountings                                                                              |
| <b>Air pressure</b>                                 |                                                                                                               |
| <b>permissible range, min.</b>                      | 795 hPa                                                                                                       |
| <b>permissible range, max.</b>                      | 1080 hPa                                                                                                      |
| <b>Relative humidity</b>                            |                                                                                                               |
| <b>Operation, min.</b>                              | 15 %                                                                                                          |
| <b>Operation, max.</b>                              | 95 % ; RH class 2 in accordance with IEC 1131-2                                                               |
| <b>Vibrations</b>                                   |                                                                                                               |
| <b>Operation, tested according to IEC 60068-2-6</b> | Yes ; IEC 68, Part 2-6; 10 to 57 Hz; (constant amplitude 0.075 mm); 57 to 150 Hz; (constant acceleration 1 g) |
| <b>Shock test</b>                                   |                                                                                                               |
| <b>tested according to IEC 60068-2-27</b>           | Yes ; IEC 68, Part 2-27; half-sine, 15 g, 11 ms                                                               |
| <b>Connection method</b>                            |                                                                                                               |

|                        |                                                                                   |
|------------------------|-----------------------------------------------------------------------------------|
| <b>Inputs/outputs</b>  | Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection |
| <b>Dimensions</b>      |                                                                                   |
| <b>Width</b>           | 235 mm ; EB and TB                                                                |
| <b>Height</b>          | 130 mm ; EB and TB                                                                |
| <b>Depth</b>           | 60 mm ; EB and TB                                                                 |
| <b>Weights</b>         |                                                                                   |
| <b>Weight, approx.</b> | 900 g ; EB and TB                                                                 |
| Status                 | Jul 7, 2014                                                                       |