



SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED  
16 DI, 120/230V AC, 1 X 20 PIN

Figure similar

|  |  |
|--|--|
| <b>Load voltage L1</b>   |  |
| <ul style="list-style-type: none"> <li>Rated value (AC)</li> </ul>   | 230 V; 120/230 V AC; all load voltages must have the same phase.   |
| <b>Input current</b>   |  |
| from backplane bus 5 V DC, max.  | 29 mA  |
| <b>Power loss</b>  |  |
| Power loss, typ.   | 4.9 W  |
| <b>Digital inputs</b>  |  |
| Number of digital inputs   | 16   |
| Input characteristic curve in accordance with IEC 61131, type 1  | Yes  |
| <b>horizontal installation</b>   |  |
| — up to 40 °C, max.  | 16   |
| — up to 60 °C, max.  | 16   |
| <b>vertical installation</b>   |  |
| — up to 40 °C, max.  | 16   |
| <b>Input voltage</b>   |  |
| <ul style="list-style-type: none"> <li>Type of input voltage</li> <li>Rated value (AC)</li> <li>for signal "0"</li> <li>for signal "1"</li> <li>Frequency range</li> </ul> | AC<br>230 V; 120/230V AC<br>0 to 40V<br>79 to 264V<br>47 ... 63 Hz |
| <b>Input current</b>   |  |
| <ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>   | 6.5 mA; (120V, 60Hz), 16mA (230V, 50Hz)                            |

|   |                  |
|---|------------------|
| <b>Input delay (for rated value of input voltage)</b>           |                  |
| for standard inputs   |                  |
| — Parameterizable   | No               |
| — at "0" to "1", min.   | 25 ms            |
| — at "0" to "1", max.   | 25 ms            |
| <b>Cable length</b>   |                  |
| • shielded, max.  | 1 000 m          |
| • unshielded, max.  | 600 m            |
| <b>Encoder</b>  |                  |
| Connectable encoders  |                  |
| • 2-wire sensor   | Yes              |
| — permissible quiescent current (2-wire sensor), max.           | 2 mA             |
| <b>Isochronous mode</b>   |                  |
| Isochronous operation (application synchronized up to terminal) | No               |
| <b>Interrupts/diagnostics/status information</b>                |                  |
| Alarms  |                  |
| • Diagnostic alarm  | No               |
| • Hardware interrupt  | No               |
| Diagnostic messages   |                  |
| • Diagnostic functions  | No               |
| Diagnostics indication LED                                      |                  |
| • Group error SF (red)  | No               |
| • Status indicator digital input (green)                        | Yes              |
| <b>Potential separation</b>                                     |                  |
| Potential separation digital inputs                             |                  |
| • between the channels  | No               |
| • between the channels, in groups of                            | 4                |
| • between the channels and the backplane bus                    | Yes; Optocoupler |
| <b>Isolation</b>  |                  |
| Isolation tested with   | 4000 VDC         |
| <b>Connection method</b>  |                  |
| required front connector  | 20-pin           |
| <b>Dimensions</b>   |                  |
| Width   | 40 mm            |
| Height  | 125 mm           |
| Depth   | 120 mm           |
| <b>Weights</b>  |                  |

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Weight, approx.

240 g

**last modified:**

10.06.2015