




SIMATIC S7-300, Digital input SM 321, Isolated 32 DI, 24 V DC, 1x 40-pole

| Supply voltage | |
|---|-------------|
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • permissible range, lower limit (DC) | 20.4 V |
| • permissible range, upper limit (DC) | 28.8 V |
| Input current | |
| from backplane bus 5 V DC, max. | 15 mA |
| Power loss | |
| Power loss, typ. | 6.5 W |
| Digital inputs | |
| Number of digital inputs | 32 |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes |
| Number of simultaneously controllable inputs | |
| horizontal installation | |
| — up to 40 °C, max. | 32 |
| — up to 60 °C, max. | 16 |
| vertical installation | |
| — up to 40 °C, max. | 32 |
| Input voltage | |
| • Type of input voltage | DC |
| • Rated value (DC) | 24 V |
| • for signal "0" | -30 to +5 V |
| • for signal "1" | 13 to 30V |
| Input current | |
| • for signal "1", typ. | 7 mA |
| Input delay (for rated value of input voltage) | |
| for standard inputs | |
| — parameterizable | No |
| — 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 | |
| • shielded, max. | 1 000 m |
| • unshielded, max. | 600 m |
| Encoder | |

| | |
|--|--|
| Connectable encoders | |
| <ul style="list-style-type: none"> • 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |
| Interrupts/diagnostics/status information | |
| Alarms | No |
| Diagnostics function | No |
| Alarms | |
| <ul style="list-style-type: none"> • Diagnostic alarm | No |
| <ul style="list-style-type: none"> • Hardware interrupt | No |
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> • Status indicator digital input (green) | Yes |
| Potential separation | |
| Potential separation digital inputs | |
| <ul style="list-style-type: none"> • between the channels | No |
| <ul style="list-style-type: none"> • between the channels, in groups of | 16 |
| <ul style="list-style-type: none"> • between the channels and backplane bus | Yes; Optocoupler |
| Isolation | |
| Isolation tested with | 500 V DC |
| Connection method | |
| required front connector | 40-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 260 g |
| last modified: | 12/16/2020  |