

SIMATIC S7-400, digital input SM 421, isolated 16 DI; UC 24 - 60 V, alarm, diagnostics



| Input current | |
|--|--|
| from backplane bus 5 V DC, max. | 150 mA |
| Power loss | |
| Power loss, typ. | 8 W; 3.5 W (24 V DC); 6.5 W (48 V DC); 8.0 W (60 V DC) |
| Digital inputs | |
| Number of digital inputs | 16 |
| Number of simultaneously controllable inputs | |
| • Number of simultaneously controllable inputs | 16 |
| Input voltage | |
| • Type of input voltage | AC/DC |
| • Rated value (UC) | 24 V; 24 V UC to 60 V UC (47 ... 63 Hz) |
| • for signal "0" | -6 to +6 V DC/ 0 to 5 V AC |
| • for signal "1" | 15 to 72 V DC; -15 to -72 V DC; 15 to 60 V AC |
| Input current | |
| • for signal "1", typ. | 4 mA; 4 to 10 mA |
| Input delay (for rated value of input voltage) | |
| for standard inputs | |
| — parameterizable | Yes |

| | |
|--|---|
| — Rated value | 0.5 ms; 0.5 / 3 / 10 / 20 ms |
| Encoder connection | |
| <ul style="list-style-type: none"> • Fixed current limitation for wire-break monitoring, min. • Fixed current limitation for wire-break monitoring, max. | 18 kΩ; 18 kohms: Rated voltage 24 V (15 to 35 V); 39 kohms: Rated voltage 48 V (30 to 60 V) 56 kΩ; Rated voltage 60 V (50 to 72 V) |
| Cable length | |
| <ul style="list-style-type: none"> • shielded, max. • unshielded, max. | 1 000 m 600 m; 600 m: 3, 10, 20 ms; 100 m: 0,5 ms |
| Encoder | |
| Connectable encoders | |
| <ul style="list-style-type: none"> • 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 0.5 mA; 0.5 to 2 mA |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes; Parameterizable |
| Alarms | |
| <ul style="list-style-type: none"> • Diagnostic alarm • Hardware interrupt | Yes; Parameterizable Yes; Parameterizable |
| Diagnostic messages | |
| <ul style="list-style-type: none"> • Diagnostic information readable • Wire-break | Yes; possible Yes; I > 0.7 mA |
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> • Status indicator digital input (green) • Channel fault indicator F (red) | Yes No |
| Potential separation | |
| Potential separation digital inputs | |
| <ul style="list-style-type: none"> • between the channels • between the channels, in groups of • between the channels and backplane bus | Yes 1 Yes |
| Isolation | |
| Isolation tested with | 1 500 V AC |
| Dimensions | |
| Width | 25 mm |
| Height | 290 mm |
| Depth | 210 mm |
| Weights | |
| Weight, approx. | 600 g |
| last modified: | 06/09/2020 |