SIEMENS

## Data sheet 6ES7421-1BL01-0AA0



SIMATIC S7-400, digital input SM 421, isolated 32 DI; 24 V DC

| | |
|---|---|
| **Input current** | |
| from backplane bus 5 V DC, max. | 20 mA |
| **Power loss** | |
| Power loss, typ. | 6 W |
| **Digital inputs** | |
| Number of digital inputs | 32 |
| Input characteristic according to IEC 61131 | Type 1 |
| Number of simultaneously controllable inputs | |
| ● Number of simultaneously controllable inputs | 32 |
| Input voltage | |
| ● Type of input voltage | DC |
| ● Rated value (DC) | 24 V |
| ● for signal "0" | -30 V DC to +5 V DC |
| ● for signal "1" | 13 V DC to 30 V DC |
| Input current | |
| ● for signal "0", max. (permissible quiescent current) | 1.3 mA |
| ● for signal "1", typ. | 7 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 | |
| ● shielded, max. | 1 000 m |
| ● unshielded, max. | 600 m |
| **Encoder** | |
| Connectable encoders | |
| ● 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | No |
| Diagnostics indication LED | |
| ● Status indicator digital input (green) | Yes |
| **Potential separation** | |
| Potential separation digital inputs | |
| ● between the channels | No |
| ● between the channels, in groups of | 32 |
| ● between the channels and backplane bus | Yes |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| **Isolation** | |
| Isolation tested with | 500 V AC/707 V DC, type test |
| **Dimensions** | |
| Width | 25 mm |
| Height | 290 mm |
| Depth | 210 mm |
| **Weights** | |
| Weight, approx. | 500 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 16 | 27-24-22-04 |
| eClass | 14 | 27-24-22-04 |
| eClass | 12 | 27-24-22-04 |
| eClass | 9.1 | 27-24-22-04 |
| eClass | 9 | 27-24-22-04 |
| eClass | 8 | 27-24-22-04 |
| eClass | 7.1 | 27-24-22-04 |
| eClass | 6 | 27-24-22-04 |
| ETIM | 10 | EC001419 |
| ETIM | 9 | EC001419 |
| ETIM | 8 | EC001419 |
| ETIM | 7 | EC001419 |
| IDEA | 4 | 3566 |
| UNSPSC | 15 | 32-15-17-05 |

**Approvals / Certificates**

**General Product Approval**

Miscellaneous

**General Product Approval** | **EMV** | **For use in hazardous locations**

China RoHS | Miscellaneous | Manufacturer Declaration

**For use in hazardous locations**

FM | Type Examination Certificate

**Maritime application**

NK / Nippon Kaiji Kyokai

**Maritime application**


© Copyright Siemens







CCS (China Classification Society)

**last modified:** 10/23/2025


Subject to change without notice
© Copyright Siemens