



Figure similar

SIPLUS S7-300 SM326F DI24 40PIN -25 ... +60 DEGREES C 70 DEG C WITH FORCED CONVECTION WITH CONFORMAL COATING BASED ON 6ES7326-1BK02-0AB0 . DIGITAL INPUT F-DI 24 X DC 24V, FAILSAFE DIGITAL INPUTS FOR SIMATIC S7 FAILSAFE SYSTEMS WITH DIAGNOST. INTERRUPT

| Supply voltage                               |             |
|----------------------------------------------|-------------|
| Rated value (DC)                             | 24 V        |
| Input current                                |             |
| from load voltage L+ (without load), max.    | 450 mA      |
| from backplane bus 5 V DC, max.              | 100 mA      |
| Encoder supply                               |             |
| Number of outputs                            | 4; Isolated |
| Output current                               |             |
| • Rated value                                | 400 mA      |
| Power loss                                   |             |
| Power loss, typ.                             | 10 W        |
| Digital inputs                               |             |
| Number of digital inputs                     | 24          |
| Number of simultaneously controllable inputs |             |
| all mounting positions                       |             |
| — up to 40 °C, max.                          | 24          |

|                                                        |                                           |
|--------------------------------------------------------|-------------------------------------------|
| — up to 60 °C, max.                                    | 24; (at 24 V) or 18 (at 28.8 V)           |
| <b>Input voltage</b>                                   |                                           |
| • Type of input voltage                                | DC                                        |
| • Rated value (DC)                                     | 24 V                                      |
| • for signal "0"                                       | -30 to +5V                                |
| • for signal "1"                                       | +11 to +30V                               |
| <b>Input current</b>                                   |                                           |
| • for signal "0", max. (permissible quiescent current) | 2 mA                                      |
| • for signal "1", typ.                                 | 10 mA                                     |
| <b>Input delay (for rated value of input voltage)</b>  |                                           |
| for standard inputs                                    |                                           |
| — at "0" to "1", max.                                  | 3.4 ms                                    |
| — at "1" to "0", max.                                  | 3.4 ms                                    |
| <b>Cable length</b>                                    |                                           |
| • shielded, max.                                       | 200 m                                     |
| • unshielded, max.                                     | 100 m                                     |
| <b>Encoder</b>                                         |                                           |
| <b>Connectable encoders</b>                            |                                           |
| • 2-wire sensor                                        | Yes; if short-circuit test is deactivated |
| — permissible quiescent current (2-wire sensor), max.  | 2 mA                                      |
| <b>Interrupts/diagnostics/status information</b>       |                                           |
| Diagnostic functions                                   | Yes                                       |
| <b>Alarms</b>                                          |                                           |
| • Diagnostic alarm                                     | Yes                                       |
| <b>Diagnostic messages</b>                             |                                           |
| • Diagnostic information readable                      | Yes                                       |
| <b>Diagnostics indication LED</b>                      |                                           |
| • Fail-safe operation                                  | Yes                                       |
| • Group error SF (red)                                 | Yes                                       |
| <b>Ex(i) characteristics</b>                           |                                           |
| <b>Maximum values of input circuits (per channel)</b>  |                                           |
| • Ta (permissible ambient temperature), max.           | 60 °C                                     |
| <b>Potential separation</b>                            |                                           |
| <b>Potential separation digital inputs</b>             |                                           |
| • between the channels                                 | Yes                                       |
| • between the channels, in groups of                   | 12                                        |
| • between the channels and backplane bus               | Yes                                       |
| <b>Isolation</b>                                       |                                           |

|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Isolation tested with                                                        | 500 V DC/350 V AC                                                                                                                                                                                                                                                                                                                                                                |
| <b>Standards, approvals, certificates</b>                                    |                                                                                                                                                                                                                                                                                                                                                                                  |
| CE mark                                                                      | Yes                                                                                                                                                                                                                                                                                                                                                                              |
| UL approval                                                                  | Yes; File E239877                                                                                                                                                                                                                                                                                                                                                                |
| FM approval                                                                  | Yes; CofC 3028431                                                                                                                                                                                                                                                                                                                                                                |
| RCM (formerly C-TICK)                                                        | Yes                                                                                                                                                                                                                                                                                                                                                                              |
| KC approval                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                              |
| EAC (formerly Gost-R)                                                        | Yes                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Highest safety class achievable in safety mode</b>                        |                                                                                                                                                                                                                                                                                                                                                                                  |
| • acc. to DIN VDE 0801                                                       | AK 6                                                                                                                                                                                                                                                                                                                                                                             |
| • acc. to EN 954                                                             | Cat. 4                                                                                                                                                                                                                                                                                                                                                                           |
| • SIL acc. to IEC 61508                                                      | SIL 3                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Ambient conditions</b>                                                    |                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Ambient temperature during operation</b>                                  |                                                                                                                                                                                                                                                                                                                                                                                  |
| • min.                                                                       | -25 °C; = Tmin                                                                                                                                                                                                                                                                                                                                                                   |
| • max.                                                                       | 60 °C; = Tmax; *+70 °C where forced convection with a minimum air velocity of 0.7 m/s through the modules and rated voltage of 24 V ±5 % are ensured. If in the course of maintenance or automatic diagnosis it is determined that the admissible specified parameters have been exceeded, the modules should be subjected to a proof test (function check) by the manufacturer. |
| <b>Extended ambient conditions</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                  |
| • relative to ambient temperature-atmospheric pressure-installation altitude | Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)                                                                                                                                                                                                                                                                                                                      |
| <b>Relative humidity</b>                                                     |                                                                                                                                                                                                                                                                                                                                                                                  |
| — With condensation, tested in accordance with IEC 60068-2-38, max.          | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions)                                                                                                                                                                                                                                                                                              |
| <b>Resistance</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                  |
| — against biologically active substances / conformity with EN 60721-3-3      | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!                                                                                                                                                                                                               |
| — against chemically active substances / conformity with EN 60721-3-3        | Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!                                                                                                                                                                                               |
| — against mechanically active substances / conformity with EN 60721-3-3      | Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!                                                                                                                                                                                                                                                            |
| <b>Connection method</b>                                                     |                                                                                                                                                                                                                                                                                                                                                                                  |
| required front connector                                                     | 40-pin                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Dimensions</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                  |
| Width                                                                        | 80 mm                                                                                                                                                                                                                                                                                                                                                                            |
| Height                                                                       | 125 mm                                                                                                                                                                                                                                                                                                                                                                           |
| Depth                                                                        | 120 mm                                                                                                                                                                                                                                                                                                                                                                           |

## Weights

Weight, approx.

442 g

**last modified:**

10/28/2016