



SIMATIC S7, DIGITAL INPUT SM 326,  
 F-DI 24 X DC 24V,  
 FAILSAFE DIGITAL INPUTS FOR SIMATIC S7 FAILSAFE  
 SYSTEMS WITH DIAGNOST. INTERRUPT,  
 UP TO CATEGORY 4 (EN954-1)/ SIL3 (IEC61508)/PLE  
 (ISO13849),  
 1 X 40 PIN

|   |                                  |
|---|----------------------------------|
| <b>Supply voltage</b>                               |                                  |
| Rated value (DC)                                    | 24 V                             |
| <b>Input current</b>                                |                                  |
| from load voltage L+ (without load), max.           | 450 mA                           |
| from backplane bus 5 V DC, max.                     | 100 mA                           |
| <b>Encoder supply</b>                               |                                  |
| Number of outputs                                   | 4 ; Isolated                     |
| Output current, rated value                         | 400 mA                           |
| <b>Power losses</b>                                 |                                  |
| Power loss, typ.                                    | 10 W                             |
| <b>Digital inputs</b>                               |                                  |
| Number/binary inputs                                | 24                               |
| <b>Number of simultaneously controllable inputs</b> |                                  |
| 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>                                |                                  |
| Rated value, DC                                     | 24 V                             |

|   |  |
|---|--|
| for signal "0"  | -30 to +5 V                                |
| for signal "1"  | 11 to 30 V                                 |
| <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>                                   |  |
| Cable length, shielded, max.                          | 200 m                                      |
| Cable length 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>      |  |
| <b>Alarms</b>   |  |
| Diagnostic alarm                                      | Yes  |
| <b>Diagnostic messages</b>                            |  |
| Diagnostic functions                                  | Yes  |
| Diagnostic information readable                       | Yes  |
| <b>Diagnostics indication LED</b>                     |  |
| Fail-safe operation                                   | Yes  |
| Group error SF (red)                                  | Yes  |
| <b>Ex(i) characteristics</b>                          |  |
| Max. values of input circuits (per channel)           |  |
| Ta (permissible ambient temperature), max.            | 60 °C                                      |
| <b>Galvanic isolation</b>                             |  |
| <b>Galvanic isolation digital inputs</b>              |  |
| between the channels                                  | Yes  |
| between the channels, in groups of                    | 12   |
| between the channels and the backplane bus            | Yes  |
| <b>Isolation</b>                                      |  |
| Isolation checked with                                | 500 V DC / 350 V AC                        |
| <b>Standards, approvals, certificates</b>             |  |
| Highest safety class achievable in safety mode        |  |
| acc. to DIN VDE 0801                                  | AK 6                                       |

|                                 |              |
|---------------------------------|--------------|
| <b>acc. to EN 954</b>           | Cat. 4       |
| <b>acc. to IEC 61508</b>        | SIL 3        |
| <b>Connection method</b>        |              |
| <b>required front connector</b> | 40-pin       |
| <b>Dimensions</b>               |              |
| <b>Width</b>                    | 80 mm        |
| <b>Height</b>                   | 125 mm       |
| <b>Depth</b>                    | 120 mm       |
| <b>Weight</b>                   |              |
| <b>Weight, approx.</b>          | 442 g        |
| Status                          | Jul 11, 2013 |