

SIMATIC S7, Digital input SM 326, F-DI 24x24 V DC, Fail-safe digital input for SIMATIC S7 F-systems with diagnostic alarm, up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 40-pole



Figure similar

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
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 +5 V
• 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>	
Diagnostics function	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>	
Maximum values of input circuits (per channel)	
• 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

## Isolation

Isolation tested with 500 V DC/350 V AC

## Standards, approvals, certificates

### Highest safety class achievable in safety mode

- acc. to DIN VDE 0801 AK 6
- acc. to EN 954 Cat. 4
- Performance level according to ISO 13849-1 e
- SIL acc. to IEC 61508 SIL 3

## Connection method

required front connector 40-pin

## Dimensions

Width 80 mm  
Height 125 mm  
Depth 120 mm

## Weights

Weight, approx. 442 g

**last modified:** 02/04/2020