

SIMATIC S7-1200, Digital input SM 1226, F-DI 16X 24 V DC, PROFIsafe, 70 mm overall width, up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)



### General information

Product type designation SM 1226, F-DI 16x24 V DC

### Supply voltage

Rated value (DC)	Yes
• 24 V DC	
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

### Input current

from backplane bus 5 V DC, max. 155 mA; Current consumption (SM Bus, 5 V DC): 155 mA

### Digital inputs

• from load voltage L+ (without load), max. 130 mA; 130 mA + 6 mA / input used + any Vs1/Vs2 current used

### Power loss

Power loss, typ. 7 W

### Digital inputs

Number of digital inputs 16; 16 (1oo1) or 8 (1oo2); Note: You can individually assign each pair of inputs "a.x" and "b.x" as a single (1oo2)-channel or as 2 separate (1oo1)-channels

Number of simultaneously controllable inputs

<b>horizontal installation</b>	
— up to 50 °C, max.	16; 16 inputs at 55 °C horizontal
<b>vertical installation</b>	
— up to 40 °C, max.	16; 16 inputs at 45 °C vertical
<b>Input voltage</b>	
• Type of input voltage	DC
• for signal "0"	-30 V DC to +5 V DC
• for signal "1"	15 V DC to 30 V DC
<b>Input current</b>	
• for signal "0", max. (permissible quiescent current)	0.5 mA
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— parameterizable	Yes; 0.8 / 1.6 / 3.2 / 6.4 / 12.8 ms
<b>Cable length</b>	
• shielded, max.	200 m; Unshielded with input filter time of 1.6 ms to 12.6 ms (With an input delay of 0.8 ms, shielded cables must be used for the digital inputs and the sensor supply)
• unshielded, max.	200 m; Shielded with input filter time of 0.8 ms to 12.6 s (With an input delay of 0.8 ms, shielded cables must be used for the digital inputs and the sensor supply)
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostics indication LED</b>	
• for status of the inputs	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
cULus	Yes
FM approval	Yes
<b>Highest safety class achievable in safety mode</b>	
• Performance level according to ISO 13849-1	1-channel, Category 3, PL d; 2-channel, Category 3 or 4, PL e
• SIL acc. to IEC 61508	SIL 2 (single-channel), SIL 3 (two-channel)
<b>Ambient conditions</b>	
<b>Free fall</b>	
• Fall height, max.	0.3 m; five times, in product package
<b>Ambient temperature during operation</b>	
• min.	0 °C
• max.	55 °C
• permissible temperature change	5°C to 55°C, 3°C / minute
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	

- Storage/transport, min. 660 hPa
- Storage/transport, max. 1 080 hPa

#### Relative humidity

- Operation at 25 °C without condensation, max. 95 %

#### Mechanics/material

##### Enclosure material (front)

- Plastic Yes

#### Dimensions

Width	70 mm
Height	100 mm
Depth	75 mm

#### Weights

Weight, approx. 250 g

**last modified:** 04/19/2018