SIEMENS

Data sheet

6ES7226-6BA32-0XB0



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)	24 V	
permissible range, lower limit (DC)	20.4 V	
permissible range, upper limit (DC)	28.8 V	
power supply according to NEC Class 2 required	No	
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 (1001) or 8 (1002); Note: You can individually assign each pair of inputs "a.x" and "b.x" as a single (1002)-channel or as 2 separate (1001)-channels	
Number of simultaneously controllable inputs		
horizontal installation		
— up to 50 °C, max.	16; 16 inputs at 55 °C horizontal	
vertical installation		
— up to 40 °C, max.	16; 16 inputs at 45 °C vertical	
Input voltage		
 for signal "0" 	-30 V DC to +5 V DC	
● for signal "1"	15 V DC to 30 V DC	
Input current		
 for signal "0", max. (permissible quiescent current) 	0.5 mA	
● for signal "1", typ.	5 mA	
Input delay (for rated value of input voltage)		
for standard inputs		
— parameterizable	Yes; 0.8 / 1.6 / 3.2 / 6.4 / 12.8 ms	
Cable length		
 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)	
Interrupts/diagnostics/status information		
Diagnostics indication LED		

• for status of the inputs	Yes	
Degree and class of protection		
IP degree of protection	IP20	
Standards, approvals, certificates		
CE mark	Yes	
cULus	Yes	
FM approval	Yes	
Highest safety class achievable in safety mode		
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)	
Probability of failure (for service life of 20 years and repair time of 100 hours)		
 Low demand mode: PFDavg in accordance with SIL2 	< 5.00E-04	
 Low demand mode: PFDavg in accordance with SIL3 	< 1.00E-05	
 High demand/continuous mode: PFH in accordance with SIL2 	< 1.00E-08 1/h	
 High demand/continuous mode: PFH in accordance with SIL3 	< 1.00E-10 1/h	
Ambient conditions		
Free fall		
Fall height, max.	0.3 m; five times, in product package	
Ambient temperature during operation		
• min.	0°0	
• max.	55 °C	
 permissible temperature change 	5°C to 55°C, 3°C / minute	
Ambient temperature during storage/transportation		
• 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	
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