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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 (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	
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

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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 °C
● 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
Classifications	

	Version	Classification
eClass	16	27-24-22-04
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566

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	UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous










General Product Approval	EMV	For use in hazardous locations		
China RoHS				FM 

For use in hazardous locations		Functional Saftey		
Miscellaneous	CCC-Ex	Type Examination Certificate	TUEV	TUEV

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