SIEMENS

Data sheet

6ES7326-1BK02-0AB0



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

Rated value (DC) Reverse polarity protection Reverse polarity protection Yes	Supply voltage	
Input current from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Ino mA Encoder supply Number of outputs Output current • Rated value Power loss Power loss, typ. Inputs Number of digital inputs Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. August of common com	Rated value (DC)	24 V
from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Encoder supply Number of outputs • Rated value Power loss Power loss, typ. Digital inputs Number of digital inputs Number of digital inputs 24 Number of digital inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 10 W 10 W 24 10 W 25 Number of simultaneously controllable inputs 26 Number of simultaneously controllable inputs 27 Number of simultaneously controllable inputs 28 Number of simultaneously controllable inputs 29 Number of simultaneously controllable inputs 20 Number of simultaneously controllable inputs 21 Number of simultaneously controllable inputs 24 — up to 60 °C, max. 24 — up to 60 °C, max. 10 10 10 10 10 11 11 11 11 1	Reverse polarity protection	Yes
from backplane bus 5 V DC, max. Encoder supply Number of outputs • Rated value • Rated value Power loss Power loss, typ. Digital inputs Number of digital inputs 24 Number of digital inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 1nput voltage • Type of input voltage • Rated value (DC) • for signal "1" • for signal "1" • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Input current	
Number of outputs	from load voltage L+ (without load), max.	450 mA
Number of outputs Output current Rated value Power loss Power loss, typ. Digital inputs Number of digital inputs Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage Rated value (DC) Rated value (DC) of or signal "0" of or signal "1" Input current of or signal "0", max. (permissible quiescent current) of or signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	from backplane bus 5 V DC, max.	100 mA
Output current Rated value Rated value Power loss Power loss, typ. Digital inputs Number of digital inputs Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage Poc (at 24 V) Rated value (DC) Por signal "0" Por signal "1" Por signal "1" Por signal "1" Por signal "0", max. (permissible quiescent current) Por signal "1", typ. Input delay (for rated value of input voltage) For standard inputs	Encoder supply	
• 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) Input voltage • Type of input voltage DC • Rated value (DC) 24 V • for signal "0" -30 to +5 V • for signal "1" +11 to +30V Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. 10 mA Input delay (for rated value of input voltage) for standard inputs	Number of outputs	4; Isolated
Power loss Power loss, typ. Digital inputs Number of digital inputs 24 Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Output current	
Power loss, typ. Digital inputs Number of digital inputs 24 Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • Rated value (DC) • for signal "0" • for signal "1" +11 to +30V Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Rated value	400 mA
Number of digital inputs Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Power loss	
Number of digital inputs Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Power loss, typ.	10 W
Number of simultaneously controllable inputs all mounting positions — up to 40 °C, max. — up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Digital inputs	
all mounting positions up to 40 °C, max. up to 60 °C, max. 24; (at 24 V) or 18 (at 28.8 V) Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	Number of digital inputs	24
 — up to 40 °C, max. — up to 60 °C, max. Input voltage • Type of input voltage • Rated value (DC) • for signal "0" • for signal "1" +11 to +30V Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs 	Number of simultaneously controllable inputs	
- up to 60 °C, max. Input voltage Type of input voltage Rated value (DC) for signal "0" for signal "1" for signal "0", max. (permissible quiescent current) for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs	all mounting positions	
Input voltage Type of input voltage Rated value (DC) for signal "0" for signal "1" Type of input voltage Type of input voltage And to +5 V Type of input voltage For signal "0" Type of input voltage Ty	— up to 40 °C, max.	24
 Type of input voltage Rated value (DC) for signal "0" for signal "1" to +5 V for signal "0", max. (permissible quiescent current) for signal "0", max. (permissible quiescent current) for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs 	— up to 60 °C, max.	24; (at 24 V) or 18 (at 28.8 V)
 Rated value (DC) for signal "0" for signal "1" to +30 V Input current for signal "0", max. (permissible quiescent current) for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs 	Input voltage	
for signal "0" for signal "1"		
for signal "1" +11 to +30V Input current for signal "0", max. (permissible quiescent current) 2 mA for signal "1", typ. 10 mA Input delay (for rated value of input voltage) for standard inputs		24 V
Input current • for signal "0", max. (permissible quiescent current) • for signal "1", typ. 10 mA Input delay (for rated value of input voltage) for standard inputs	•	-30 to +5 V
for signal "0", max. (permissible quiescent current) for signal "1", typ. 10 mA Input delay (for rated value of input voltage) for standard inputs		+11 to +30V
for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs 10 mA	process of the second s	
Input delay (for rated value of input voltage) for standard inputs		
for standard inputs		10 mA
— at "0" to "1", max. 3.4 ms	,	
— at "1" to "0", max. 3.4 ms		3.4 ms
Cable length ● shielded, max. 200 m	<u> </u>	200 m
 shielded, max. unshielded, max. 100 m 		
Encoder		100 111
Connectable encoders		
2-wire sensor Yes; if short-circuit test is deactivated		Ves: if short-circuit test is deactivated
— permissible quiescent current (2-wire sensor), max.	— permissible quiescent current (2-wire sensor),	

Interrupts/diagnostics/status information		
Diagnostics function	Yes	
Alarms		
Diagnostic alarm	Yes	
Diagnoses		
Diagnostic information readable	Yes	
Diagnostics indication LED		
 Fail-safe operation 	Yes	
 Group error SF (red) 	Yes	
Potential separation		
Potential separation digital inputs		
 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 	е	
 SIL acc. to IEC 61508 	SIL 3	
connection method / header		
required front connector	40-pin	
Dimensions		
Width	80 mm	
Height	125 mm	
Depth	120 mm	
Weights		
Weight, approx.	442 g	
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