## **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
<ul> <li>— up to 40 °C, max.</li> <li>— up to 60 °C, max.</li> <li>Input voltage</li> <li>• Type of input voltage</li> <li>• Rated value (DC)</li> <li>• for signal "0"</li> <li>• for signal "1"</li> <li>+11 to +30V</li> <li>Input current</li> <li>• for signal "0", max. (permissible quiescent current)</li> <li>• for signal "1", typ.</li> <li>Input delay (for rated value of input voltage)</li> <li>for standard inputs</li> </ul>	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
<ul> <li>Type of input voltage</li> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> <li>to +5 V</li> <li>for signal "0", max. (permissible quiescent current)</li> <li>for signal "0", max. (permissible quiescent current)</li> <li>for signal "1", typ.</li> <li>Input delay (for rated value of input voltage)</li> <li>for standard inputs</li> </ul>	— up to 60 °C, max.	24; (at 24 V) or 18 (at 28.8 V)
<ul> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> <li>to +30 V</li> </ul> Input current <ul> <li>for signal "0", max. (permissible quiescent current)</li> <li>for signal "1", typ.</li> </ul> Input delay (for rated value of input voltage) <ul> <li>for standard inputs</li> </ul>	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
<ul> <li>shielded, max.</li> <li>unshielded, max.</li> <li>100 m</li> </ul>		
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	
<ul> <li>Fail-safe operation</li> </ul>	Yes
<ul> <li>Group error SF (red)</li> </ul>	Yes
Potential separation	
Potential separation digital inputs	
<ul> <li>between the channels</li> </ul>	Yes
<ul> <li>between the channels, in groups of</li> </ul>	12
<ul> <li>between the channels and backplane bus</li> </ul>	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
<ul> <li>Performance level according to ISO 13849-1</li> </ul>	e
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
last modified:	1/16/2021 🗗