SIEMENS

Data sheet

6ES7131-6BF00-0CA0



SIMATIC ET 200SP, digital input module, DI 8x 24 V DC High Feature, input type 3 (IEC 61131), sink input, (PNP, sink input) Packing unit: 1 unit, suitable for BU type A0, color code CC01, input delay 0.05..20 ms; Channel diagnostics for: Encoder power supply short circuit, wire break, supply voltage, channel fault LED

Figure similar

Product type designation DI 8x24 V DC HF	7 4 110 000		
From FS07 Firmware version • FW update possible usable BaseUnits BU type A0 Color code for module-specific color identification plate • I&M data • I&M data • Isochronous mode Engineering with • STEP 7 TIA Portal configurable/integrated from version • FEP 7 TIA Portal configurable/integrated from version • PCS 7 configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/GSD revision • OPER Counter • Oversampling • No • Oversampling • NSI Supply voltage Rated value (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 26.8 V Reverse polarity protection Tyes Current consumption (rated value) Current consumption, max. Encoder supply • Number of outputs 8 Output voltage, min. Short-circuit protection Yes Pound • Output urrent per channel, max. • Output current per module, max.	General information		
Firmware version FIV update possible Yes Uspa A0	Product type designation	DI 8x24 V DC HF	
• FW update possible usable BaseUnits BU type A0 Color code for module-specific color identification plate Product function • I&M data • Isochronous mode Engineering with • STEP 7 TIA Potral configurable/integrated from version • PCS 7 con	HW functional status	From FS07	
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Product function • I&M data • Isochronous mode Pes I&M to I&M3 • Isochronous mode Pes I&M to I&M3 • Isochronous mode Pes I&M to I&M3 • ISTEP 7 CIAP Ortal configurable/integrated from version • STEP 7 TIAP Ortal configurable/integrated from version • STEP 7 Configurable/integrated from version • PCS 7 configurable/integrated from version • PCS 7 configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • OPERATION OF PROFIBUS From GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • DI • Outline Yes • Outline Yes • Oversampling • MSI Supply voltage Rated value (DC) • Permissible range, lower limit (DC) • Permissible range, lower limit (DC) • Permissible range, upper limit (DC) • Reverse polarity protection • Yes Input current Current consumption (rated value) • Output current consumption (rated value) • As output voltage, min. • 19.2 V • Short-circuit protection • Yes 24 V • Short-circuit protection • Yes 24 V • Short-circuit protection • Yes 24 V • Short-circuit protection • Output current per channel, max. • Output current per module, max.	usable BaseUnits	BU type A0	
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Independent of the second process of the se	Product function		
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PCS 9 configurable/integrated from ve	 I&M data 	Yes; I&M0 to I&M3	
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PROFINET from GSD version/GSD revision Operating mode	 PCS 7 configurable/integrated from version 	V8.1 SP1	
Operating mode • DI Yes • Counter No • Oversampling No • MSI Yes Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 20 mA Current consumption, max. 39 mA Encoder supply Number of outputs 8 Output voltage, min. 19.2 V Short-circuit protection Yes 24 V es 24 V es 24 V es 25 v es 26 v es 27 v es 28 es 29 v es 20 mA Current consumption (rated value) 20 mA Encoder supply Number of outputs 8 Output voltage, min. 19.2 V Short-circuit protection Yes 24 V encoder supply • 24 V Yes • Short-circuit protection Yes; per channel, electronic • Output current per channel, max. • Output current per module, max.	 PROFIBUS from GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher	
DI Counter Counter No Oversampling No MSI Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption (rated value) Current consumption, max. 39 mA Encoder supply Number of outputs Short-circuit protection Yes 24 V Pes 424 V Short-circuit protection Yes 425 V Yes Short-circuit protection Yes 424 V Output voltage, min. And	 PROFINET from GSD version/GSD revision 	GSDML V2.3	
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Reverse polarity protection Input current Current consumption (rated value) Current consumption, max. 20 mA Current consumption, max. 39 mA Encoder supply Number of outputs 8 Output voltage, min. 19.2 V Short-circuit protection Yes 24 V encoder supply • 24 V • Short-circuit protection Yes Short-circuit protection Yes 24 V encoder supply • 24 V • Output current per channel, max. • Output current per module, max. 700 mA	permissible range, lower limit (DC)	19.2 V	
Input current Current consumption (rated value) Current consumption, max. 39 mA Encoder supply Number of outputs Output voltage, min. 19.2 V Short-circuit protection 24 V encoder supply 24 V Short-circuit protection Yes 24 V Short-circuit protection Yes 26 V Output current per channel, max. Output current per module, max. 700 mA	permissible range, upper limit (DC)	28.8 V	
Current consumption (rated value) Current consumption, max. 39 mA Encoder supply Number of outputs 8 Output voltage, min. Short-circuit protection 4 V encoder supply • 24 V • Short-circuit protection • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	Reverse polarity protection	Yes	
Current consumption, max. Encoder supply Number of outputs 8 Output voltage, min. Short-circuit protection Yes 24 V encoder supply • 24 V • Short-circuit protection Yes Short-circuit protection Yes Output current per channel, max. • Output current per module, max. 700 mA	Input current		
Encoder supply Number of outputs 8 Output voltage, min. Short-circuit protection 24 V encoder supply • 24 V • Short-circuit protection • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	Current consumption (rated value)	20 mA	
Number of outputs Output voltage, min. 19.2 V Short-circuit protection 24 V encoder supply • 24 V • Short-circuit protection • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	Current consumption, max.	39 mA	
Output voltage, min. Short-circuit protection 24 V encoder supply • 24 V • Short-circuit protection • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	Encoder supply		
Short-circuit protection 24 V encoder supply • 24 V • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA		8	
Short-circuit protection 24 V encoder supply • 24 V • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	Output voltage, min.	19.2 V	
24 V encoder supply • 24 V • Short-circuit protection • Output current per channel, max. • Output current per module, max. 700 mA	· · · · · · · · · · · · · · · · · · ·	Yes	
 24 V Short-circuit protection Output current per channel, max. Output current per module, max. Output current per module, max. 			
 Output current per channel, max. Output current per module, max. 700 mA 	· · ·	Yes	
 Output current per channel, max. Output current per module, max. 700 mA 700 mA 	Short-circuit protection	Yes; per channel, electronic	
Output current per module, max. 700 mA	•		

Power loss, typ.	1.5 W; 24 V, 8 inputs supplied via encoder supply
Address area	1.5 vv, 24 v, o iliputo supplied via effcodel supply
Address space per module	
	1 buto: ± 1 buto for Ol information
Inputs Hardware configuration	1 byte; + 1 byte for QI information
	Von
Automatic encoding	Yes
Mechanical coding element	Yes
Type of mechanical coding element	Type A
Submodules	
Number of configurable submodules, max.	4
Selection of BaseUnit for connection variants	PILL AS
• 1-wire connection	BU type A0
2-wire connection	BU type A0
3-wire connection	BU type A0 with AUX terminals or potential distributor module
4-wire connection	BU type A0 + Potential distributor module
Digital inputs	
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Pulse extension	Yes; Pulse duration from 4 µs
Length	2 s; 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s
Edge evaluation	Yes; rising edge, falling edge, edge change
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
Input current	
● for signal "1", typ.	2.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to
·	500 µs, depending on line length)
— at "0" to "1", min.	0.05 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
permissible quiescent current (2-wire sensor), max.	1.5 mA
Isochronous mode	
Filtering and processing time (TCI), min.	420 µs
Bus cycle time (TDP), min.	500 μs
Jitter, max.	
	8 µs
Interrupts/diagnostics/status information	Vec
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes; channel by channel
Hardware interrupt	Yes; Parameterizable, channels 0 to 7
Diagnoses	
Diagnostic information readable	Yes
Diagnostic information readableMonitoring the supply voltage	Yes Yes
-	
Monitoring the supply voltage	Yes
Monitoring the supply voltage — parameterizable	Yes Yes; channel by channel Yes; Channel by channel, optional protective circuit for preventing wire-break
 Monitoring the supply voltage — parameterizable Monitoring of encoder power supply 	Yes Yes; channel by channel

Diagnostics indication LED		
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED	
 Channel status display 	Yes; green LED	
 for channel diagnostics 	Yes; red LED	
 for module diagnostics 	Yes; green/red DIAG LED	
Potential separation		
Potential separation channels		
 between the channels 	No	
 between the channels and backplane bus 	Yes	
 between the channels and the power supply of the electronics 	No	
Isolation		
Isolation tested with	707 V DC (type test)	
Standards, approvals, certificates		
Suitable for safety functions	No	
Ambient conditions		
Ambient temperature during operation		
 horizontal installation, min. 	-30 °C; < 0 °C as of FS07	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	-30 °C; < 0 °C as of FS07	
 vertical installation, max. 	50 °C	
Altitude during operation relating to sea level		
 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	
Dimensions		
Width	15 mm	
Height	73 mm	
Depth	58 mm	
Weights		
Weight, approx.	28 g	

last modified: