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 HW functional status From FS07 Firmware version FW update possible Yes usable BaseUnits BU type A0 Color code for module-specific color identification plate Product function New designation With Status Yes; I&MO to I&M3 Isachronous mode Yes Engineering with STEP 7 TIA Portal configurable/integrated from version FSTEP 7 T	Consequence information		
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Address area	Power loss		
Address area	Power loss, typ.	1.5 W; 24 V, 8 inputs supplied via encoder supply	
Address space per module			
	Address space per module		

• Inputs	1 byte; + 1 byte for QI information
Hardware configuration	
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	
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	Bo type 7.0 - 1 oterital distributor module
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Source/sink input	P-reading
·	Yes
Input characteristic curve in accordance with IEC 61131, type 3	
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	04.1/
• 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
	20 1115
Cable length	1 000 m
• 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	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes; channel by channel
Hardware interrupt	Yes; Parameterizable, channels 0 to 7
Diagnoses	
 Diagnostic information readable 	Yes
 Monitoring the supply voltage 	Yes
— parameterizable	Yes
 Monitoring of encoder power supply 	Yes; channel by channel
Wire-break	Yes; Channel by channel, optional protective circuit for preventing wire-break
	diagnostics in the case of simple encoder contacts: 25 kOhm to 45 kOhm
Short-circuit	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: 1/16/2021 🖸