## **SIEMENS**

## **Data sheet**

6ES7131-6BH01-0BA0



SIMATIC ET 200SP, Digital input module, DI 16x 24V DC Standard, type 3 (IEC 61131), sink input, (PNP, P-reading), Packing unit: 1 Piece, fits to BU-type A0, Colour Code CC00, input delay time 0,05..20ms, diagnostics wire break, diagnostics supply voltage

General information		
Product type designation	DI 16x24VDC ST	
HW functional status	From FS02	
Firmware version	V0.0	
FW update possible	No	
usable BaseUnits	BU type A0	
Color code for module-specific color identification plate	CC00	
Product function		
I&M data	Yes; I&M0 to I&M3	
Isochronous mode	No	
Engineering with		
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V14	
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3	
<ul> <li>PCS 7 configurable/integrated from version</li> </ul>	V8.1 SP1	
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	One GSD file each, Revision 3 and 5 and higher	
PROFINET from GSD version/GSD revision	GSDML V2.3	
Operating mode		
• DI	Yes	
Counter	No	
<ul> <li>Oversampling</li> </ul>	No	
• MSI	No	
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, max.	90 mA	
Encoder supply		
24 V encoder supply		
• 24 V	No	
Power loss		
Power loss, typ.	1.7 W	
Address area		
Address space per module		
• Inputs	2 byte; + 2 bytes for QI information	
Hardware configuration		
Automatic encoding	Yes	

Mechanical coding element	Yes
Type of mechanical coding element	Type A
Selection of BaseUnit for connection variants	Турс А
1-wire connection	BU type A0
2-wire connection	BU type A0 + Potential distributor module
3-wire connection	BU type A0 + Potential distributor module
4-wire connection	BU type A0 + Potential distributor module
Digital inputs	Bo type Ao 11 oterital distributor module
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Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
Input current	1116.004
• for signal "1", typ.	2.5 mA
Input delay (for rated value of input voltage)	2.0 110 (
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
— ραιαπιστοπέαριο	of 30 to 500 $\mu$ s, 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),	1.5 mA
max.	1.5 11/1
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
Diagnostic information readable	Yes
Monitoring the supply voltage	Yes
— parameterizable	Yes
<ul> <li>Monitoring of encoder power supply</li> </ul>	No
Wire-break	Yes; Module-by-module, optional protective circuit for preventing wire-
	break diagnostics in the case of simple encoder contacts: 25 kOhm to
	45 kOhm
Short-circuit	No
Group error	Yes
Diagnostics indication LED	
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED
Channel status display	Yes; green LED
for channel diagnostics	No
for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
<ul> <li>between the channels</li> </ul>	No
<ul> <li>between the channels and backplane bus</li> </ul>	Yes
<ul> <li>between the channels and the power supply of the</li> </ul>	No
electronics	
Isolation	

Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; < 0 °C as of FS02
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; < 0 °C as of FS02
vertical installation, max.	50 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	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
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