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 BUtype 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		
 STEP 7 TIA Portal configurable/integrated from version 	V14	
 STEP 7 configurable/integrated from version 	V5.5 SP3	
 PCS 7 configurable/integrated from version 	V8.1 SP1	
 PROFIBUS from GSD version/GSD revision 	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	
Oversampling	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	Туре А
Selection of BaseUnit for connection variants	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131,	Yes
type 3	
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),	1.5 mA
max.	
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
 Diagnostic information readable 	Yes
 Monitoring the supply voltage 	Yes
— parameterizable	Yes
 Monitoring of encoder power supply 	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	
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
- Channel statue diaplay	
 Channel status display 	Yes; green LED
for channel diagnostics	-
	Yes; green LED
 for channel diagnostics 	Yes; green LED No
 for channel diagnostics for module diagnostics	Yes; green LED No
for channel diagnostics for module diagnostics Potential separation	Yes; green LED No
for channel diagnostics for module diagnostics Potential separation Potential separation channels	Yes; green LED No Yes; green/red DIAG LED
for channel diagnostics for module diagnostics Potential separation Potential separation channels between the channels	Yes; green LED No Yes; green/red DIAG LED
 for channel diagnostics for module diagnostics Potential separation Potential separation channels between the channels between the channels and backplane bus 	Yes; green LED No Yes; green/red DIAG LED No Yes
 for channel diagnostics for module diagnostics Potential separation Potential separation channels between the channels between the channels and backplane bus between the channels and the power supply of the 	Yes; green LED No Yes; green/red DIAG LED No Yes

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 FS02
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C; < 0 °C as of FS02
 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
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