6ES7131-6BF01-0AA0

Data sheet



SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Basic, type 2 (IEC 61131), sink input, (PNP, P-reading), Packing unit: 1 piece, fits to BU-type A0, Colour Code CC01, input delay time 0,05..20ms, module diagnostics for: supply voltage

General information		
Product type designation	DI 8x24VDC BA	
HW functional status	FS03	
Firmware version	V0.0	
 FW update possible 	No	
usable BaseUnits	BU type A0	
Color code for module-specific color identification plate	CC01	
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 / -	
 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.	70 mA; All channels are supplied from the encoder supply	
Encoder supply		
Number of outputs	8	
Output voltage, min.	19.2 V	
Short-circuit protection	Yes; per module	
24 V encoder supply		
• 24 V	Yes	
Short-circuit protection	Yes	
Output current per channel, max.	700 mA	
 Output current per module, max. 	700 mA	
Power loss		
Power loss, typ.	1.6 W; 24 V, 8 inputs supplied via encoder supply	

Address area		
Address space per module		
• Inputs	1 byte	
Hardware configuration		
Automatic encoding	Yes	
Mechanical coding element	Yes	
 Type of mechanical coding element 	Type A	
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		
Number of digital inputs	8	
Digital inputs, parameterizable	Yes	
Source/sink input	P-reading	
Input characteristic curve in accordance with IEC 61131, type 1	Yes	
Input characteristic curve in accordance with IEC 61131, type 2	Yes	
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		
• for signal "1", typ.	6.8 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),	2 mA	
max.		
Interrupts/diagnostics/status information	Voc	
Diagnostics function	Yes	
Alarms • Diagnostic glarm	Voc	
Diagnostic alarm Diagnoses	Yes	
Diagnostic information readable	Yes	
Monitoring the supply voltage	Yes	
morntoring the supply voltage parameterizable	Yes	
Monitoring of encoder power supply	No	
Wire-break	No	
Short-circuit	No	
	Yes	
Group error Yes Diagnostics indication LED		
Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED	
Channel status display	Yes; green LED	
for channel diagnostics	No	
for module diagnostics	Yes; green/red DIAG LED	
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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 FS03	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	-30 °C; < 0 °C as of FS03	
 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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last modified: