

SIMATIC ET 200SP, DIGITAL INPUT MODULE, DI 8X 24VDC STANDARD, FITS TO BU-TYPE A0, COLOR CODE CC01, MODULE DIAGNOSIS

General information	
Product type designation	DI 8x24 VDC ST
Firmware version	V1.1
<ul style="list-style-type: none"> FW update possible 	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC01
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated as of version 	V11 SP2 / V13
<ul style="list-style-type: none"> STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PCS 7 configurable/integrated as of version 	V8.1 SP1
<ul style="list-style-type: none"> PROFIBUS as of GSD version/GSD revision 	GSD Revision 5
<ul style="list-style-type: none"> PROFINET as of GSD version/GSD revision 	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> DI 	Yes
<ul style="list-style-type: none"> Counter 	No
<ul style="list-style-type: none"> Oversampling 	No
<ul style="list-style-type: none"> 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.	50 mA
Encoder supply	
Number of outputs	8
Output voltage encoder supply, min.	19.2 V
Short-circuit protection	Yes; per module
24 V encoder supply	
<ul style="list-style-type: none"> 24 V 	Yes

- Short-circuit protection
- Output current, max.

Yes
700 mA; Total current of all encoders

Power loss

Power loss, typ. 1 W

Address area

Address space per module

- Address space per module, max. 1 byte; + 1 byte for QI information

Hardware configuration

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
- 4-wire connection BU type A0 + external terminals

Digital inputs

Number of digital inputs 8

Input characteristic curve in accordance with IEC 61131, type 1 Yes

Input characteristic curve in accordance with IEC 61131, type 2 No

Input characteristic curve in accordance with IEC 61131, type 3 Yes

Pulse extension No

Input voltage

- Type of input voltage DC
- Rated value (DC) 24 V
- for signal "0" -30 to +5V
- 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 μ s, depending on line length)

for interrupt inputs

- parameterizable No

for counter/technological functions

- parameterizable No

Cable length

- shielded, max. 1 000 m
- unshielded, max. 600 m

Encoder

Connectable encoders	
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes 1.5 mA
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes
Diagnostic messages	
<ul style="list-style-type: none"> • Diagnostic information readable • Monitoring the supply voltage — parameterizable • Monitoring of encoder power supply • Wire-break • Short-circuit 	Yes Yes Yes Yes; Module-wise Yes; Module-by-module, optional protective circuit for preventing wire-break diagnostics in the case of simple encoder contacts: 25 kOhm to 45 kOhm Yes; Module-wise
Diagnostics indication LED	
<ul style="list-style-type: none"> • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics 	Yes; green PWR LED Yes; Green LED No Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
<ul style="list-style-type: none"> • between the channels • between the channels and backplane bus • between the channels and the power supply of the electronics 	No Yes No
Isolation	
Isolation tested with	707 V DC (type test)
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
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