SIEMENS

SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Standard, type 3 (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: short-circuit of sensor supply, wire break, supply voltage

General information	
Product type designation	DI 8x24 VDC ST
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
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V14
• STEP 7 configurable/integrated as of version	V5.5 SP3 or higher
• PCS 7 configurable/integrated as of version	V8.1 SP1
• PROFIBUS as of GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
• PROFINET as of 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.	50 mA; All channels are supplied from the encoder supply

Encoder supply

Number of outputs	8
Output voltage encoder supply, min.	19.2 V
Short-circuit protection	Yes; per module
24 V encoder supply	
• 24 V	Yes
• Short-circuit protection	Yes
• Output current, max.	700 mA; Total current of all encoders

Power loss

Power loss, typ.	1 W; 24 V, 8 inputs supplied via encoder supply

Address area

Address space per module	
• Inputs	1 byte; + 1 byte for QI information

Hardware configuration

Automatic encoding	Yes
• Mechanical coding element	Yes
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
• 4-wire connection	BU type A0 + Potential isolation 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 3	Yes
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 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), max.	1.5 mA
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnostic messages	
● Diagnostic information readable	Yes
● Monitoring the supply voltage	Yes
— parameterizable	Yes
● Monitoring of encoder power supply	Yes; Module-by-module, optional protective circuit for preventing wire-break diagnostics in the case of simple encoder contacts: 25 kOhm to 45 kOhm
● Wire-break	Yes; Module-wise
● Short-circuit	Yes; Module-wise
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

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)

Ambient conditions

Ambient temperature during operation

• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	50 °C

Altitude during operation relating to sea level

• Ambient air temperature-barometric pressure-altitude	On request: Ambient temperatures lower than 0 °C (without condensation) and/or installation altitudes greater than 2 000 m

Dimensions

Width	15 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	28 g
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