

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 8x 24 V DC BA, PU 1
HW functional status	FS03
Firmware version	V0.0
<ul style="list-style-type: none"> FW update possible 	No
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
<ul style="list-style-type: none"> Isochronous mode 	No
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated as of version 	V14
<ul style="list-style-type: none"> STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PROFIBUS as of GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher
<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

• 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
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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 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
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Address area

Address space per module	
• Inputs	1 byte

Hardware configuration

Automatic encoding	Yes
• Mechanical coding element	Yes
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 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 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), max.	2 mA
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	No
• Wire-break	No
• Short-circuit	No
• 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

Potential separation

Potential separation channels

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| • 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)
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Ambient conditions

Ambient temperature during operation

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| • horizontal installation, min. | -30 °C |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | -30 °C |
| • vertical installation, max. | 50 °C |

Altitude during operation relating to sea level

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| • Installation altitude above sea level, max. | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
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Dimensions

Width	15 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	28 g
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last modified: 04/10/2020