



SIMATIC ET 200SP, Digital input module, DI 8x 24V DC SRC BA, type 1 (IEC 61131), source Input (NPN, M-reading) Packing unit: 1 piece, fits to BU-type A0, Colour Code CC02, input delay time 0,05..20ms, module diagnostics for: supply voltage

General information	
Product type designation	DI 8x24 VDC SRC BA
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	CC02
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 (rated value)	4.5 mA
Current consumption, max.	53 mA
Encoder supply	
Short-circuit protection	No
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
• Inputs	1 byte
Hardware configuration	
Automatic encoding	Yes
• Type of mechanical coding element	type B
Selection of BaseUnit for connection variants	
• 1-wire connection	BU type A0

- 2-wire connection
- 3-wire connection
- 4-wire connection

BU type A0
 BU type A0 with AUX terminals or potential distributor module
 BU type A0 + Potential distributor module

Digital inputs

Number of digital inputs	8
Digital inputs, parameterizable	Yes
Source/sink input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
<ul style="list-style-type: none"> • Rated value (DC) • for signal "0" • for signal "1" 	24 V 30 V to -5 V (reference potential is L+) -11 V to -30 V (reference potential is L+)
Input current	
<ul style="list-style-type: none"> • for signal "1", typ. 	6 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	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	1 000 m 200 m

Encoder

Connectable encoders	
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes 1.5 mA

Interrupts/diagnostics/status information

Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes
Diagnoses	
<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 No No No
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)
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Standards, approvals, certificates

Suitable for safety functions	No
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Ambient conditions

Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	-30 °C; < 0 °C as of FS02 60 °C -30 °C; < 0 °C as of FS02 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

last modified: 10/13/2023 