



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
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	No
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC02
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V14
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	One GSD file each, Revision 3 and 5 and higher
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> <li>DI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Counter</li> </ul>	No
<ul style="list-style-type: none"> <li>Oversampling</li> </ul>	No
<ul style="list-style-type: none"> <li>MSI</li> </ul>	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
Encoder supply	
Short-circuit protection	No
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	1 byte
Hardware configuration	
Automatic encoding	Yes
<ul style="list-style-type: none"> <li>Type of mechanical coding element</li> </ul>	type B
Selection of BaseUnit for connection variants	
<ul style="list-style-type: none"> <li>1-wire connection</li> </ul>	BU type A0
<ul style="list-style-type: none"> <li>2-wire connection</li> </ul>	BU type A0

<ul style="list-style-type: none"> <li>• 3-wire connection</li> <li>• 4-wire connection</li> </ul>	BU type A0 with AUX terminals or potential distributor module BU type A0 + Potential distributor module
<b>Digital inputs</b>	
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Source/sink input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
<b>Input voltage</b>	
<ul style="list-style-type: none"> <li>• Rated value (DC)</li> <li>• for signal "0"</li> <li>• for signal "1"</li> </ul>	24 V 30 V to -5 V (reference potential is L+) -11 V to -30 V (reference potential is L+)
<b>Input current</b>	
<ul style="list-style-type: none"> <li>• for signal "1", typ.</li> </ul>	6 mA
<b>Input delay (for rated value of input voltage)</b>	
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
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> <li>• unshielded, max.</li> </ul>	1 000 m 200 m
<b>Encoder</b>	
Connectable encoders	
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes 1.5 mA
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>• Diagnostic alarm</li> </ul>	Yes
<b>Diagnoses</b>	
<ul style="list-style-type: none"> <li>• Diagnostic information readable</li> <li>• Monitoring the supply voltage</li> <li>— parameterizable</li> <li>• Monitoring of encoder power supply</li> <li>• Wire-break</li> <li>• Short-circuit</li> </ul>	Yes Yes Yes No No No
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• Monitoring of the supply voltage (PWR-LED)</li> <li>• Channel status display</li> <li>• for channel diagnostics</li> <li>• for module diagnostics</li> </ul>	Yes; green PWR LED Yes; green LED No Yes; green/red DIAG LED
<b>Potential separation</b>	
Potential separation channels	
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels and backplane bus</li> <li>• between the channels and the power supply of the electronics</li> </ul>	No Yes No
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Suitable for safety functions	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> </ul>	-30 °C; < 0 °C as of FS02 60 °C

- vertical installation, min. -30 °C; < 0 °C as of FS02
- 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
-----------------	------

**last modified:** 2/1/2021 