



SIMATIC ET 200SP, digital input module, DI 8x NAMUR High Feature, suitable for BU type A0, Color code CC01, channel diagnostics

General information	
Product type designation	DI 8xNAMUR HF
HW functional status	from FS04
Firmware version	
• FW update possible	Yes
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
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V13 / V13
• STEP 7 configurable/integrated from version	V5.5 SP3 / -
• PROFIBUS from GSD version/GSD revision	GSD Revision 5
• 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
Encoder supply	
Number of outputs	8
Short-circuit protection	Yes
24 V encoder supply	
• 24 V	No
• Short-circuit protection	No
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
• Address space per module, max.	1 byte; + 1 byte for QI information

Hardware configuration	
Automatic encoding	
<ul style="list-style-type: none"> <li>Type of mechanical coding element</li> </ul>	Type A
Selection of BaseUnit for connection variants	
<ul style="list-style-type: none"> <li>1-wire connection</li> <li>2-wire connection</li> <li>3-wire connection</li> <li>4-wire connection</li> </ul>	BU type A0 BU type A0 BU type A0 + external terminals BU type A0 + external terminals
Digital inputs	
Number of digital inputs	8; NAMUR
Digital inputs, parameterizable	Yes
Pulse extension	Yes; 0.5 s, 1 s, 2 s
Edge evaluation	Yes; rising edge, falling edge, edge change
Signal change flutter	Yes; 2 to 32 signal changes
Flutter observation window	Yes; 0.5 s, 1 s to 100 s in 1-s steps
Input voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	8.2 V
Input current	
for 10 k switched contact	
<ul style="list-style-type: none"> <li>for signal "0"</li> <li>for signal "1"</li> </ul>	0.35 to 1.2 mA 2.1 to 7 mA
for unswitched contact	
<ul style="list-style-type: none"> <li>for signal "0", max. (permissible quiescent current)</li> <li>for signal "1"</li> </ul>	0.5 mA typ. 8 mA
for NAMUR encoders	
<ul style="list-style-type: none"> <li>for signal "0"</li> <li>for signal "1"</li> </ul>	0.35 to 1.2 mA 2.1 to 7 mA
Input delay (for rated value of input voltage)	
<ul style="list-style-type: none"> <li>tolerated changeover time for changeover contacts</li> </ul>	300 ms
for standard inputs	
<ul style="list-style-type: none"> <li>parameterizable</li> </ul>	No
for NAMUR inputs	
<ul style="list-style-type: none"> <li>at "0" to "1", max.</li> <li>at "1" to "0", max.</li> </ul>	12 ms 12 ms
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	200 m
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> <li>NAMUR encoder/changeover contact according to EN 60947</li> <li>Single contact / changeover contact unconnected</li> <li>Single contact / changeover contact connected with 10 kΩ</li> </ul>	Yes Yes Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> <li>Diagnostic alarm</li> <li>Hardware interrupt</li> </ul>	Yes; channel by channel Yes; Parameterizable, channels 0 to 7
Diagnoses	
<ul style="list-style-type: none"> <li>Diagnostic information readable</li> <li>Monitoring the supply voltage               <ul style="list-style-type: none"> <li>parameterizable</li> </ul> </li> <li>Monitoring of encoder power supply</li> <li>Wire-break</li> <li>Short-circuit</li> </ul>	Yes Yes Yes No Yes; channel by channel Yes; channel by channel
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED

<ul style="list-style-type: none"> <li>• Channel status display</li> </ul>	Yes; green LED
<ul style="list-style-type: none"> <li>• for channel diagnostics</li> </ul>	Yes; red LED
<ul style="list-style-type: none"> <li>• for module diagnostics</li> </ul>	Yes; green/red DIAG LED
<b>Potential separation</b>	
Potential separation channels	
<ul style="list-style-type: none"> <li>• between the channels</li> </ul>	No
<ul style="list-style-type: none"> <li>• between the channels and backplane bus</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• between the channels and the power supply of the electronics</li> </ul>	Yes
<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> </ul>	-30 °C
<ul style="list-style-type: none"> <li>• horizontal installation, max.</li> </ul>	60 °C
<ul style="list-style-type: none"> <li>• vertical installation, min.</li> </ul>	-30 °C
<ul style="list-style-type: none"> <li>• vertical installation, max.</li> </ul>	50 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
<b>Dimensions</b>	
Width	15 mm
Height	73 mm
Depth	58 mm
<b>Weights</b>	
Weight, approx.	32 g