

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
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Address area

Address space per module	
• Address space per module, max.	1 byte; + 1 byte for QI information

Hardware configuration

Automatic encoding	
• Type of mechanical coding element	Type A
Selection of BaseUnit for connection variants	
• 1-wire connection	BU type A0
• 2-wire connection	BU type A0
• 3-wire connection	BU type A0 + external terminals
• 4-wire connection	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

• Rated value (DC)	8.2 V
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Input current

for 10 k switched contact	
— for signal "0"	0.35 to 1.2 mA
— for signal "1"	2.1 to 7 mA

for unswitched contact	
— for signal "0", max. (permissible quiescent current)	0.5 mA
— for signal "1"	typ. 8 mA
for NAMUR encoders	
— for signal "0"	0.35 to 1.2 mA
— for signal "1"	2.1 to 7 mA
Input delay (for rated value of input voltage)	
• tolerated changeover time for changeover contacts	300 ms
for standard inputs	
— parameterizable	No
for NAMUR inputs	
— at "0" to "1", max.	12 ms
— at "1" to "0", max.	12 ms
Cable length	
• shielded, max.	200 m

Encoder

Connectable encoders	
• NAMUR encoder/changeover contact according to EN 60947	Yes
• Single contact / changeover contact unconnected	Yes
• Single contact / changeover contact connected with 10 kΩ	Yes

Interrupts/diagnostics/status information

Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes; channel by channel
• Hardware interrupt	Yes; Parameterizable, channels 0 to 7
Diagnostic messages	
• Diagnostic information readable	Yes
• Monitoring the supply voltage	Yes
— parameterizable	Yes
• Monitoring of encoder power supply	No
• Wire-break	Yes; channel by channel
• Short-circuit	Yes; channel by channel
Diagnostics indication LED	
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Channel status display	Yes; green LED
• for channel diagnostics	Yes; red LED
• 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	Yes

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	
• 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	
• 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.	32 g
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