

Siemens
EcoTech



Figure similar

SIMATIC ET 200SP, digital input module, DI 8x 24 V DC High Feature, input type 3 (IEC 61131), sink input, (PNP, sink input) Packing unit: 1 unit, suitable for BU type A0, color code CC01, input delay 0.05..20 ms; Channel diagnostics for: Encoder power supply short circuit, wire break, supply voltage, channel fault LED

General information	
Product type designation	DI 8x24 V DC HF
HW functional status	From FS07
Firmware version	
• FW update possible	Yes
usable BaseUnits	BU type A0
Color code for module-specific color-coded label	CC01
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	Yes; 250 µs
• suitable for operation on PROFINET R1 IMs	Yes
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V13 SP1 / -
• STEP 7 configurable/integrated from version	V5.5 / -
• PCS 7 configurable/integrated from version	V8.1 SP1
• PCS neo can be configured/integrated from version	from V1.0.0
• 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	Yes
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)	20 mA
Current consumption, max.	39 mA
Encoder supply	
Number of outputs	8
Output voltage, min.	19.2 V
Short-circuit protection	Yes

24 V encoder supply	
• 24 V	Yes
• Short-circuit protection	Yes; per channel, electronic
• Output current per channel, max.	700 mA
• Output current per module, max.	700 mA
Power loss	
Power loss, typ.	1.5 W; 24 V, 8 inputs supplied via encoder supply
Address area	
Address space per module	
• Inputs	1 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	Yes
• Mechanical coding element	Yes
• Type of mechanical coding element	Type A
Submodules	
• Number of configurable submodules, max.	4
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 distributor module
Digital inputs	
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Sourcing/sinking input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Pulse extension	Yes; Pulse duration from 4 µs
• Length	2 s; 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s
Edge evaluation	Yes; rising edge, falling edge, edge change
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.	2.5 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.	1.5 mA
Isochronous mode	
Filtering and processing time (TCI), min.	420 µs
Bus cycle time (TDP), min.	500 µs
Jitter, max.	8 µs
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes; channel by channel
• Hardware interrupt	Yes; Parameterizable, channels 0 to 7

Diagnoses			
Diagnostic information readable		Yes	
Monitoring the supply voltage		Yes	
— parameterizable		Yes	
Monitoring of encoder power supply		Yes; channel by channel	
Wire break		Yes; Channel by channel, optional protective circuit for preventing wire-break diagnostics in the case of simple encoder contacts: 25 kOhm to 45 kOhm	
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		No	
Isolation			
Isolation tested with		707 V DC (type test)	
Standards, approvals, certificates			
Suitable for safety functions		No	
Ecological footprint			
environmental product declaration		Yes	
Global warming potential			
— global warming potential, (total) [CO2 eq]		15.9 kg	
— global warming potential, (during production) [CO2 eq]		3.69 kg	
— global warming potential, (during operation) [CO2 eq]		12.7 kg	
— global warming potential, (after end of life cycle) [CO2 eq]		-0.495 kg	
Ambient conditions			
Ambient temperature during operation			
horizontal installation, min.		-30 °C; < 0 °C as of FS07	
horizontal installation, max.		60 °C	
vertical installation, min.		-30 °C; < 0 °C as of FS07	
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	
Absolute humidity			
dew point, min.		-60 °C; suitable for dry room applications	
Dimensions			
Width		15 mm	
Height		73 mm	
Depth		58 mm	
Weights			
Weight, approx.		28 g	
Classifications			
		Version	Classification
	eClass	16	27-24-26-04
	eClass	14	27-24-26-04
	eClass	12	27-24-26-04
	eClass	9.1	27-24-26-04
	eClass	9	27-24-26-04
	eClass	8	27-24-26-04
	eClass	7.1	27-24-26-04

eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



[Manufacturer Declaration](#)

[Miscellaneous](#)



General Product Approval



[China RoHS](#)

[Manufacturer Declaration](#)



For use in hazardous locations



[FM](#)

[CCC-Ex](#)



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Maritime application

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[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)



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