



SIMATIC, electronic module, for ET200iSP, 8 DI NAMUR, Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIC Da] IIC T4 Gb, Ex ib [ia] I Mb

General information	
Product brand name	SIMATIC
Product family	ET 200iSP
Product category	Digital module input
Product type designation	8DI NAMUR
HW functional status	12
Firmware version	V1.1.1
CIR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Installation type/mounting	
Rack mounting	No
Front mounting	Yes
Rail mounting	Yes
Wall mounting/direct mounting	No
Supply voltage	
Type of supply voltage	DC
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption, typ.	80 mA
from load voltage (power bus), max.	90 mA
Power loss	
Power loss, typ.	1.1 W
Hardware configuration	
Fieldbus connection via separate transceiver	Yes
Digital inputs	
Number of digital inputs	8
Digital input functions, parameterizable	
<ul style="list-style-type: none"> • Counter <ul style="list-style-type: none"> — Number, max. — Counting frequency, max. 	2; normal and periodic count function 5 kHz; with a cable length of 20 m: 5 kHz; with a cable length of 100 m: 1 kHz; with a cable length of 200 m: 500 Hz
Input voltage	
<ul style="list-style-type: none"> • Type of input voltage 	DC
Input current	
<ul style="list-style-type: none"> • for signal "0", max. (permissible quiescent current) • for signal "1", min. 	1.2 mA 2.1 mA
Input delay (for rated value of input voltage)	
<ul style="list-style-type: none"> • Delay time for signal change, min. 	2.8 ms

• Delay time for signal change, max.	3.5 ms
for standard inputs	
— at "0" to "1", min.	2.8 ms
— at "0" to "1", max.	3.5 ms
— at "1" to "0", min.	2.8 ms
— at "1" to "0", max.	3.5 ms
Cable length	
• shielded, max.	500 m
Encoder	
Number of connectable encoders, max.	8
Connectable encoders	
• NAMUR encoder	Yes
Interfaces	
Number of PROFINET interfaces	0
Number of RS 485 interfaces	0
Protocols	
Supports protocol for PROFINET IO	No
PROFIsafe	No
PROFIBUS	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes; Parameterizable
• Hardware interrupt	No
Diagnoses	
• Diagnostic information readable	Yes
• Wire-break	Yes; I load < 0.2 mA with NAMUR encoders/encoders and NAMUR changeover contact/encoders to DIN 19234
• Short-circuit	Yes; R load < 150 ohms with NAMUR sensor/sensor and NAMUR changeover contact/sensor to DIN 19234
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
Integrated Functions	
Frequency measurement	Yes; (Gate time) 50 ms; 200 ms; 1 s
• Number of frequency meters	2
Ex(i) characteristics	
Module for Ex(i) protection	Yes; for more Co/Lo combinations, see certificate IECEx KEM 05.0010
maximum values for connecting terminals for gas group IIC	
• Uo (no-load voltage), max.	9.6 V
• Io (short-circuit current), max.	16 mA
• Po (power output), max.	38 mW
• Co (permissible external capacity), max.	3.6 µF
• Lo (permissible external inductivity), max.	110 mH
Potential separation	
Potential separation digital inputs	
• between the channels	No
• between the channels and backplane bus	Yes
Permissible potential difference	
between different circuits	60 V DC/30 V AC
Degree and class of protection	
IP degree of protection	IP30
Standards, approvals, certificates	
CE mark	CE 0344
UKCA mark	DEKRA 21UKEX0084 Importer UK: Siemens plc Manchester M20 2UR
cULus	LISTED E334384
FM approval	CLASSIFIED 3025852
Suitable for safety functions	No
INMETRO certificate	UL-BR 12.0068

reference designation according to IEC 81346-2 (2009)	K
Use in hazardous areas	
<ul style="list-style-type: none"> • ATEX marking • ATEX certificate • IECEx • CCC Ex • EAC Ex • FM marking • Explosion protection category for gas • Explosion protection category for dust • associated equipment (Ex ia) • associated equipment (Ex ib) 	<p>II 2 G (1) G Ex ib [ia Ga] IIC T4 Gb II 2 G (1) D Ex ib [ia IIIC Da] IIC T4 Gb I M2 Ex ib [ia] I Mb</p> <p>KEMA 04 ATEX 1248</p> <p>IECEX KEM 05.0010</p> <p>2020322310002637</p> <p>PB Ex ib [ia] I Mb 1Ex ib [ia Ga] IIC T4 Gb [Ex ia Da] IIIC</p> <p>Class I, Zone 1 AEx ib [ia] IIC T4 Ex ib IIC T4 NI, Class I, DIV.2, GP. A,B,C,D T4 AIS, Class I, DIV.1, GP. A,B,C,D T4 DIP Class II, III, GP. E,F,G</p> <p>ATEX gas explosion protection, Zone 1</p> <p>ATEX dust explosion protection, Zone 21 always install in corresponding enclosure</p> <p>Yes</p> <p>Yes</p>

Marine approval	
<ul style="list-style-type: none"> • Germanischer Lloyd (GL) • American Bureau of Shipping (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

Connection method	
Design of electrical connection	Screw/spring-type terminal

Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm

Weights	
Weight, approx.	255 g

Classifications			
		Version	Classification
	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



[Miscellaneous](#)
[China RoHS](#)



For use in hazardous locations



[FM](#)

[Miscellaneous](#)


For use in hazardous locations | Maritime application

[CCC-Ex](#)



[Miscellaneous](#)



Maritime application | Environment



[NK / Nippon Kaiji Kyokai](#)



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