



SIMATIC, fail-safe electronic module for ET200iSP, 8 F-DI NAMUR Ex I, up to category 4 (EN954-1)/ SIL3 (IEC61508)/PLE (ISO13849), Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC 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	8F-DI ExNAMUR
Installation type/mounting	
Rack mounting	No
Front mounting	Yes
Rail mounting	Yes
Wall mounting/direct mounting	Yes
Supply voltage	
Type of supply voltage	DC
Input current	
Current consumption, typ.	145 mA
from supply voltage L+, max.	150 mA; int. Powerbus
Encoder supply	
Number of outputs	8
Output voltage (DC)	8 V
Power loss	
Power loss, typ.	1.4 W
Address area	
Address space per module	
• Inputs	6 byte
• Outputs	4 byte
Hardware configuration	
Fieldbus connection via separate transceiver	Yes
Digital inputs	
Number of digital inputs	8
Input voltage	
• Type of input voltage	DC
Input current	
• for signal "0", max. (permissible quiescent current)	1.2 mA
• for signal "1", min.	2.1 mA
• for signal "1", typ.	9.5 mA
Input delay (for rated value of input voltage)	
• Delay time for signal change, min.	0.7 ms
• Delay time for signal change, max.	16 ms
for standard inputs	
— at "0" to "1", min.	0.7 ms

— at "0" to "1", max.	16 ms; Parameterizable
— at "1" to "0", min.	0.7 ms
— at "1" to "0", max.	16 ms; Parameterizable
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	200 m
<b>Encoder</b>	
Number of connectable encoders, max.	8
<b>Connectable encoders</b>	
• NAMUR encoder	Yes
<b>Interfaces</b>	
Number of PROFINET interfaces	0
Number of RS 485 interfaces	0
<b>Protocols</b>	
Supports protocol for PROFINET IO	No
PROFIBUS	No
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes; Parameterizable
• Hardware interrupt	No
<b>Diagnoses</b>	
• Diagnostic information readable	Yes
• Wire-break	Yes; NAMUR encoders or single contact with 10 kOhm parallel resistor
• Short-circuit	Yes; R load < 150 ohms with NAMUR sensor/sensor and NAMUR changeover contact/sensor to DIN 19234
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes
<b>Potential separation</b>	
Potential separation digital inputs	
• between the channels	No
• between the channels and backplane bus	Yes
<b>Permissible potential difference</b>	
between different circuits	60 V DC/30 V AC
<b>Isolation</b>	
Isolation tested with	350 V AC/1 min between the shield and backplane bus connection 350 V AC/1 min between the shield and I/O 2830 V AC/1 min between backplane bus connection and I/O
<b>Degree and class of protection</b>	
IP degree of protection	IP30
<b>Standards, approvals, certificates</b>	
CE mark	Yes
Suitable for safety functions	Yes
reference designation according to IEC 81346-2 (2009)	K
<b>Highest safety class achievable in safety mode</b>	
• acc. to EN 954	Cat. 3 (single-channel), Cat. 4 (two-channel)
• Performance level according to ISO 13849-1	PLe
• SIL acc. to IEC 61508	SIL 3
<b>Use in hazardous areas</b>	
• ATEX marking	II 2 G (1) GD Ex ib[ia Ga][ia IIIC Da] IIC T4 GB and I M2 Ex ib[ia Ma] I Mb
• ATEX certificate	10 ATEX 0056
• Explosion protection category for gas	ATEX gas explosion protection, Cat. 2
• associated equipment (Ex ia)	Yes
• associated equipment (Ex ib)	Yes
<b>Connection method</b>	
Design of electrical connection	Screw/spring-type terminal
<b>Dimensions</b>	
Width	30 mm
Height	129 mm

Depth	136.5 mm
<b>Weights</b>	
Weight, approx.	288 g

<b>Classifications</b>			
		<b>Version</b>	<b>Classification</b>
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](#)

[Metrological Approval](#)

[KC](#)

**General Product Approval**      **For use in hazardous locations**



[FM](#)



[Miscellaneous](#)

**For use in hazardous locations**      **Functional Safety**



[Miscellaneous](#)

[TUEV](#)

[Type Examination Certificate](#)

**Functional Safety**      **Maritime application**      **Environment**

[TUEV](#)



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