



Figure similar

SIMATIC S7, Digital input SM 326, F-DI 24x24 V DC, Fail-safe digital input for SIMATIC S7 F-systems with diagnostic alarm, up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 40-pole

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	450 mA
from backplane bus 5 V DC, max.	100 mA
Encoder supply	
Number of outputs	4; Isolated
Output current	
• Rated value	400 mA
Power loss	
Power loss, typ.	10 W
Digital inputs	
Number of digital inputs	24
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	24
— up to 60 °C, max.	24; (at 24 V) or 18 (at 28.8 V)
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
Input current	
• for signal "0", max. (permissible quiescent current)	2 mA
• for signal "1", typ.	10 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	3.4 ms
— at "1" to "0", max.	3.4 ms
Cable length	
• shielded, max.	200 m
• unshielded, max.	100 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes; if short-circuit test is deactivated
— permissible quiescent current (2-wire sensor), max.	2 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes

Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Diagnostic information readable	Yes
Diagnostics indication LED	
• Fail-safe operation	Yes
• Group error SF (red)	Yes
Potential separation	
Potential separation digital inputs	
• between the channels	Yes
• between the channels, in groups of	12
• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	500 V DC/350 V AC
Standards, approvals, certificates	
Highest safety class achievable in safety mode	
• acc. to DIN VDE 0801	AK 6
• acc. to EN 954	Cat. 4
• Performance level according to ISO 13849-1	e
• SIL acc. to IEC 61508	SIL 3
connection method	
required front connector	40-pin
Dimensions	
Width	80 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	442 g
Classifications	

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates	
General Product Approval	other



[Miscellaneous](#)



[Confirmation](#)

[Miscellaneous](#)

Environment

[Environmental Con-
firmations](#)



[Environmental Con-
firmations](#)



Figure similar

SIMATIC S7, Digital input SM 326, 8 DI; 24 V DC, NAMUR, fail-safe NAMUR input for SIMATIC S7 F-systems, up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 40-pole

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	160 mA
from backplane bus 5 V DC, max.	90 mA
Encoder supply	
Number of outputs	8
Type of output voltage	8.2 V DC
Power loss	
Power loss, typ.	4.5 W
Digital inputs	
Number of digital inputs	8
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	8
— up to 60 °C, max.	8
Input voltage	
• Type of input voltage	DC
Input current	
• for signal "0", max. (permissible quiescent current)	0.35 to 1.2 mA
• for signal "1", typ.	2.1 to 7 mA
Input delay (for rated value of input voltage)	
for NAMUR inputs	
— at "0" to "1", max.	1.2 to 3 ms
— at "1" to "0", max.	1.2 to 3 ms
Cable length	
• shielded, max.	200 m
• unshielded, max.	100 m
Interrupts/diagnostics/status information	
Alarms	
• Diagnostic alarm	Yes; Parameterizable
Diagnostics indication LED	
• Fail-safe operation	Yes
• Group error SF (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
maximum values for connecting terminals for gas group IIC	
• U ₀ (no-load voltage), max.	10 V

• Io (short-circuit current), max.	13.9 mA
• Po (power output), max.	33.1 mW
• Co (permissible external capacity), max.	3 µF
• Lo (permissible external inductivity), max.	80 mH
• Um (voltage at non-intrinsically safe connecting terminals), max.	60 V DC/30 V AC

Potential separation

Potential separation digital inputs	
• between the channels	Yes
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	Yes

Standards, approvals, certificates

Highest safety class achievable in safety mode	
• acc. to EN 954	Cat. 4
• Performance level according to ISO 13849-1	PLe
• SIL acc. to IEC 61508	SIL 2 (single-channel), SIL 3 (two-channel)

Use in hazardous areas	
• ATEX certificate	99 ATEX 2671 X

Ambient conditions

Ambient temperature during operation	
• max.	60 °C

connection method

required front connector	1x 40-pin
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Dimensions

Width	80 mm
Height	125 mm
Depth	120 mm

Weights

Weight, approx.	482 g
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Classifications

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	EMV	For use in hazardous locations
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FM

For use in hazardous locations	Functional Safety
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[Type Examination Certificate](#)

Marine / Shipping



[NK / Nippon Kaiji Kyokai](#)



Marine / Shipping



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

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