SIEMENS

Data sheet

6ES7141-5AF00-0BA0



SIMATIC ET 200AL, DI 8x 24 V DC, 4x M12, Degree of protection IP67

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General information	
Product type designation	DI 8x24VDC
HW functional status	FS03
Firmware version	V1.0.x
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V13 SP1 or higher
 STEP 7 configurable/integrated from version 	V5.5 SP4 Hotfix 7 or higher
 PROFIBUS from GSD version/GSD revision 	GSD as of Revision 5
 PROFINET from GSD version/GSD revision 	GSDML V2.3.1
Supply voltage	
power supply according to NEC Class 2 required	No
Load voltage 1L+	
 Rated value (DC) 	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity
Input current	
Current consumption (rated value)	25 mA; without load
from load voltage 1L+ (unswitched voltage)	4 A; Maximum value
from load voltage 2L+, max.	4 A; Maximum value
Encoder supply	
Number of outputs	4
24 V encoder supply	
Short-circuit protection	Yes; per module, electronic
 Output current, max. 	0.7 A; Total current of all encoders
Power loss	
Power loss, typ.	1.9 W
Digital inputs	
Number of digital inputs	8
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 55 °C, max.	8
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.	3.2 mA
Input delay (for rated value of input voltage)	3.2 IIIA
for standard inputs	4.0 mg
— at "0" to "1", min.	1.2 ms
— at "0" to "1", max.	4.8 ms
— at "1" to "0", min.	1.2 ms
— at "1" to "0", max.	4.8 ms
Cable length	
unshielded, max.	30 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes; Parameterizable
Diagnoses	
Short-circuit	Yes; Sensor supply to M; module by module
Diagnostics indication LED	
Channel status display	Yes; green LED
for module diagnostics	Yes; green/red LED
Potential separation	
between the load voltages	Yes
Potential separation channels	
between the channels	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of the 	No
electronics	
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes; From FS01
Highest safety class achievable for safety-related tripping of standard modules	
Performance level according to ISO 13849-1	PL d
Category according to ISO 13849-1	Cat. 3
• SIL acc. to IEC 62061	SIL 2
Ambient conditions	
Ambient temperature during operation	
• min.	-30 °C
• max.	55 °C
connection method	
Design of electrical connection for the inputs and outputs	M12 5-nole
	M12, 5-pole
Design of electrical connection for supply voltage ET-Connection	M8, 4-pole
	M9 4 pin shiolded
• ET-Connection	M8, 4-pin, shielded
Dimensions	00
Width	30 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	145 g
last modified:	8/16/2023 🗗

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