SIEMENS

Data sheet

6ES7141-5AF00-0BA0



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

Submer Annohimation D1 8x24VDC HW functional status FS03 Firmware version V1.0.x Product type designation V1.5.5 SP4 Hofts 7 or higher • Step 7 type designation GSD as of Revision 5 GSD as of Revision 5 GSDML V2.3.1 Supply voltage power supply according to NEC Class 2 required No Load voltage 1.4 Q2.4 V V • permissible range, uoper limit (DC) 20.4 V Ves: Against destruction; encoder power supply outputs appiled with revers	General information	
HW functional status FS03 Firmware version V1.x Product function V1.x • I&M data Yes; I&M0 to I&M3 Engineering with STEP 7 V13 SP1 or higher • STEP 7 TIA Portal configurable/integrated from version STEP 7 V13 SP1 or higher • STEP 7 Configurable/integrated from version SEP 7 V13 SP1 or higher • ROFINET from GSD version/GSD revision GSD as of Revision 5 • PROFINET from GSD version/GSD revision GSDML V2.3.1 Supply voltage Dower supply according to NEC Class 2 required • Rated value (DC) 24 V • Reverse polarity protection 20.4 V • permissible range, lower limit (DC) 28.8 V • Reverse polarity protection Yes; Against destruction; encoder power supply outputs applied with reversed polarity Input current Zornet consumption (rate value) from load voltage 1.1+ (unswitched voltage) 4 A; Maximum value from load voltage 1.1+ (unswitched voltage) 4 A; Maximum value from load voltage 1.1+ (unswitched voltage) 4 A; Maximum value from load voltage 1.1+ (unswitched voltage) 4 A; Maximum value from load voltage 1.1+ (unswitched voltage) 4 A; Maximum value from load voltage 2.1+, max. 4 A; Maximum value Encoder supply 4 24 V enco		
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all mounting positions — up to 55 °C, max. 8		Yes
- up to 55 °C, max. 8 Input voltage	Number of simultaneously controllable inputs	
Input voltage	all mounting positions	
Input voltage	— up to 55 °C, max.	8
Rated value (DC) 24 V	Input voltage	
	Rated value (DC)	24 V

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• 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)	
for standard inputs	
— 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), 	1.5 mA
max.	
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	
	-30 °C
• min.	-30°C
• max.	
connection method / header	
Design of electrical connection for the inputs and outputs	M12, 5-pole
Design of electrical connection for supply voltage	M8, 4-pole
ET-Connection	M0.4 nin shielded
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	30 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	145 g
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