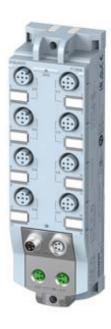
SIEMENS

Data sheet

6ES7141-5AH00-0BA0

SIMATIC ET 200AL, DI 16x 24 V DC, 8x M12, Degree of protection IP67



General information	
Product type designation	DI 16x24VDC
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 as of version 	STEP 7 V13 SP1 or higher
 STEP 7 configurable/integrated as of version 	V5.5 SP4 Hotfix 7 or higher
 PROFIBUS as of GSD version/GSD revision 	GSD as of Revision 5
 PROFINET as of GSD version/GSD revision 	GSDML V2.3.1

Supply voltage

Load voltage 1L+

• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 \

Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity
Input current	
Current consumption (rated value)	30 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	8
24 V encoder supply	
Short-circuit protection	Yes; per module, electronic
Output current, max.	1.4 A; Total current of all encoders
·	,
Power loss	
Power loss, typ.	2.7 W
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC	Yes
61131, type 3	
Number of simultaneously controllable inputs	
all mounting positions	
— up to 55 °C, max.	16
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)	
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)	1.5 mA
sensor), max.	
Interrupto/diagnostico/atatua information	
Interrupts/diagnostics/status information	

Alarms	
Diagnostic alarm	Yes; Parameterizable
Diagnostic messages	
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 electronics 	No
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	ng of standard modules
Performance level according to ISO 13849-1	PL d
Category according to ISO 13849-1	Cat. 3
SILCL according to IEC 62061	SILCL 2
- Sizez decording to ize ozen	9-55-2
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-pole
Design of electrical connection for supply voltage	M8, 4-pole
ET-Connection	
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	40 mm
Weights	

Weight, approx. 184 g	

05/13/2020 last modified: