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Data sheet 6ES7647-0KA01-0AA2

SIMATIC IoT2000 input/output module, 5x DI 2x AI 2x DQ, ARDUINO Shield for SIMATIC IoT2040 and IoT2050



General information	
Product type designation	IOT2000
Installation type/mounting	
Mounting	On Arduino interface
Design	Plug-in card
Supply voltage	
Type of supply voltage	24 V DC
Digital inputs	
Number of digital inputs	5
Input voltage	
● Type of input voltage	DC
● for signal "0"	< 5 V DC
● for signal "1"	> 12 V DC
Input current	
● for signal "0", max. (permissible quiescent current)	0.9 mA
● for signal "1", typ.	2.1 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	1.5 ms
— at "1" to "0", max.	1.5 ms
Digital outputs	
Type of digital output	transistor
Number of digital outputs	2
Short-circuit protection	Yes
Output voltage	
● Type of output voltage	DC
● permissible voltage at output, min.	0 V
● permissible voltage at output, max.	28.8 V
Output current	
● for signal "1" rated value	0.3 A
Parallel switching of two outputs	
● for uprating	No
Switching frequency	
● with resistive load, max.	10 Hz
● with inductive load, max.	0.5 Hz
Analog inputs	
Number of analog inputs	2
Input ranges	
● Voltage	Yes; 0 to 10V

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● Current	Yes; 0 to 20 mA
● Thermocouple	No
● Resistance thermometer	No
● Resistance	No
Input ranges (rated values), voltages	
● 0 to +10 V	Yes
Input ranges (rated values), currents	
● 0 to 20 mA	Yes
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	9 bit
Interrupts/diagnostics/status information	
LED status display	No
Integrated Functions	
Monitoring functions	
● Temperature monitoring	No
● Fan	No
Degree and class of protection	
IP (at the front)	n.a.
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
KC approval	Yes; For use inside SIMATIC IoT2040
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	50 °C
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-2-6	Tested according to IEC 60068-2-6: 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 200 Hz: 9.8 m/s²
Operating systems	
without operating system	Yes
Dimensions	
Width	75 mm
Height	57 mm
Depth	32 mm

Classifications

	Version	Classification
eClass	16	19-20-01-02
eClass	14	19-20-01-02
eClass	12	19-20-01-02
eClass	9.1	19-20-01-02
eClass	9	19-20-01-02
eClass	8	19-20-01-02
eClass	7.1	19-20-01-02
eClass	6	19-20-01-02
ETIM	10	EC001413
ETIM	9	EC001413
ETIM	8	EC001413
ETIM	7	EC001413
IDEA	4	6606
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval	Maritime application

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Manufacturer Declaration

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