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Data sheet 6ES7321-1CH00-0AA0



Figure similar

spare part SIMATIC S7-300, digital input SM 321, isolated, 16 DI, 24-48 V AC/DC with single-point grounding, 1x 40-pole

Supply voltage	
Load voltage L+	
● Rated value (DC)	24 V
● permissible range, lower limit (DC)	24 V
● permissible range, upper limit (DC)	48 V
Load voltage L1	
● Rated value (AC)	24 V
● permissible range, lower limit (AC)	24 V
● permissible range, upper limit (AC)	48 V
Input current	
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	1.5 W; at 24 V; 2,8 W at 48 V
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	16
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
Input voltage	
● Type of input voltage	AC/DC
● Rated value (DC)	24 V; DC 24 or 48 V
● Rated value (AC)	24 V; 24 V AC or 48 V AC (0 ... 63 Hz)
● for signal "0"	-5V AC to +5V AC
● for signal "1"	14V AC to 60V AC
Input current	
● for signal "0", min.	-1 mA
● for signal "0", max. (permissible quiescent current)	1 mA
● for signal "1", typ.	2.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	16 ms
— at "0" to "1", max.	16 ms
— at "1" to "0", max.	16 ms
Cable length	

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● shielded, max.	1 000 m
● unshielded, max.	600 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1 mA
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
● Diagnostic alarm	No
● Hardware interrupt	No
Diagnostics indication LED	
● Group error SF (red)	No
● Status indicator digital input (green)	Yes
Potential separation	
Potential separation digital inputs	
● between the channels	Yes
● between the channels, in groups of	1
● between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested with	1 500 V AC
connection method	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	260 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	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	EMV

Miscellaneous











EMV	For use in hazardous locations

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FM

For use in hazardous locations		Maritime application			
Miscellaneous	CCC-Ex				

Maritime application			
NK / Nippon Kaiji Kyokai			CCS (China Classification Society)

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