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Data sheet 6ES7321-1CH20-0AA0



Figure similar

spare part SIMATIC S7-300, digital input SM 321, isolated, 16 DI, 48-125 V DC, 1x 20-pole

Supply voltage	
Load voltage L+	
● Rated value (DC)	48 V
● permissible range, lower limit (DC)	48 V
● permissible range, upper limit (DC)	125 V
Input current	
from backplane bus 5 V DC, max.	40 mA
Power loss	
Power loss, typ.	4.3 W
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.	8
— up to 60 °C, max.	8; 6 to Ue 146 V
vertical installation	
— up to 40 °C, max.	8
Input voltage	
● Type of input voltage	DC
● Rated value (DC)	48 V; 48 V DC to 125 V DC
● for signal "0"	-146 V DC to +15 V DC
● for signal "1"	30 V DC to 146 V DC
Input current	
● for signal "1", typ.	3.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	0.1 ms
— at "0" to "1", max.	3.5 ms
— at "1" to "0", min.	0.7 ms
— at "1" to "0", max.	3 ms
Cable length	
● 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

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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	No
● between the channels, in groups of	8
● between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested with	1 500 V DC
connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	200 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	CE EG-Konf.	UKCA	UL	RCM	CE EG-Konf.

EMV		For use in hazard-ous locations	Maritime application		
UKCA	RCM	FM	ABS	BUREAU VERITAS	DNV

Maritime application

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CCS (China Classification Society)

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