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Data sheet 6ES7321-7RD00-0AB0



Figure similar

********** spare part ********* SIMATIC S7, digital input SM 321, isolated, 4 DI; 24 V DC, NAMUR/DIN 19234, for signals from the hazardous area, diagnostics-capable, PTB tested,

Supply voltage	
Load voltage L+	
● Rated value (DC)	24 V
● Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	50 mA
from backplane bus 5 V DC, max.	80 mA
Encoder supply	
Type of output voltage	via the inputs
Power loss	
Power loss, typ.	1.1 W
Digital inputs	
Number of digital inputs	4
Number of NAMUR inputs	4
Input voltage	
● Type of input voltage	DC
● Rated value (DC)	8.2 V; from internal power circuit supply
Input current	
● on wire-break, max.	0.1 mA
● on short-circuit, max.	8.5 mA
for NAMUR encoders	
— for signal "0", min.	0.35 mA
— for signal "0", max.	1.2 mA
— for signal "1", min.	2.1 mA
— for signal "1", max.	7 mA
Input delay (for rated value of input voltage)	
● Input frequency (with a time delay of 0.1 ms), max.	2 kHz
for NAMUR inputs	
— Parameterizable	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms (plus 0.25 ms preparation time)
Cable length	
● unshielded, max.	200 m
Encoder	
Connectable encoders	
● NAMUR encoder	Yes; Two-wire connection
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnoses	
● Diagnostic information readable	Yes

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Diagnostics indication LED	
● Group error SF (red)	Yes
● Status indicator digital input (green)	Yes
● Channel fault indicator F (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
maximum values for connecting terminals for gas group IIC	
● Uo (no-load voltage), max.	10 V
● Io (short-circuit current), max.	14.1 mA
● Po (power output), max.	33.7 mW
● Co (permissible external capacity), max.	3 µF
● Lo (permissible external inductivity), max.	100 mH
Potential separation	
Potential separation digital inputs	
● between the channels	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
● between the channels, in groups of	1
● between the channels and backplane bus	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
● Between the channels and load voltage L+	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
Standards, approvals, certificates	
Use in hazardous areas	
● ATEX marking	ATEX II 3 G (2) GD Ex nA [ib Gb] [ib IIIC Db] IIC T4 Gc
● FM marking	Class II, Division 2, Group A, B, C, D T4
● Test number PTB	Ex-96.D.2094X
Ambient conditions	
Ambient temperature during operation	
● max.	60 °C
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	230 g

Classifications

	Version	Classification
eClass	16	27-24-22-04
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

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Miscellaneous | Manufacturer Declaration

General Product Approval			For use in hazardous locations		
China RoHS	Manufacturer Declaration	Miscellaneous	ATEX	IECEx	FM

For use in hazardous locations				Maritime application	
CCC	CCC-Ex	ATEX	UL	DNV	NK / Nippon Kaiji Kyokai

Maritime application
PRS

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