SIEMENS

Product data sheet   **6ES7321-7RD00-0AB0**

SIMATIC S7, DIGITAL INPUT SM 321,
OPTICALLY ISOLATED, 4 DI, 24V DC,
NAMUR/DIN 19234,
F. SIGNALS F HAZARDOUS AREAS,
CAPABLE OF DIAGNOST.,PTB-TESTED

Supply voltage	
Load voltage L+	
Rated value (DC)	24 V
Input current	
from load voltage L+ (without load), max.	50 mA
from backplane bus 5 V DC, max.	80 mA
Encoder supply	
Output voltage	via the inputs
Power losses	
Power loss, typ.	1.1 W
Digital inputs	
Number of NAMUR inputs	4
Input voltage	
Rated value, DC	8.2 V ; from internal power circuit supply
Input current	

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on wire break, max.	0.1 mA
on short -circuit, max.	8.5 mA
for NAMUR encoders	
for signal "0"	0.35 to 1.2 mA
for signal "1"	2.1 to 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	
Cable length unshielded, max.	200 m
Encoder	
Connectable encoders	
NAMUR encoder	Yes ; Two-wire connection
Interrupts/diagnostics/status information	
Diagnostic messages	
Diagnostic information readable	Yes
Diagnostics indication LED	
Short circuit per channel (red)	Yes
Short-circuit group error (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
Max. values of input circuits (per channel)	
Co (permissible external capacity), max.	3 µF
Io (short-circuit current), max.	14.1 mA
Lo (permissible external inductivity), max.	100 mH
Po (power of load), max.	33.7 mW
Uo (output no-load voltage), max.	10 V
Galvanic isolation	
Galvanic isolation digital inputs	
Galvanic isolation digital inputs	Yes
between the channels, in groups of	1
Standards, approvals, certificates	

Use in hazardous areas	
Type of protection acc. to EN 50020 (CENELEC)	[EEx ib] IIC
Type of protection acc. to FM	Class II, Division 2, Group A, B, C, D T4
Test number PTB	Ex-96.D.2094X
Ambient conditions	
Operating temperature	
max.	60 °C
Connection method	
required front connector	20-pin
Weight	
Weight, approx.	230 g
Status	Jul 17, 2012