SIEMENS

Data sheet 6ES7421-7DH00-0AB0



SIMATIC S7-400, digital input SM 421, isolated 16 DI; UC 24 - 60 V, alarm, diagnostics

Input current	
from backplane bus 5 V DC, max.	150 mA
Power loss	
Power loss, typ.	8 W; 3.5 W (24 V DC); 6.5 W (48 V DC); 8.0 W (60 V DC)
Digital inputs	
Number of digital inputs	16
Input characteristic according to IEC 61131	similar to IEC 61131-2
Number of simultaneously controllable inputs	
● Number of simultaneously controllable inputs	16
Input voltage	
● Type of input voltage	AC/DC
● Rated value (UC)	24 V; 24 V UC to 60 V UC (47 ... 63 Hz)
● for signal "0"	-6 to +6 V DC/ 0 to 5 V AC
● for signal "1"	15 to 72 V DC; -15 to -72 V DC; 15 to 60 V AC
Input current	
● for signal "1", typ.	4 mA; 4 to 10 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes
— Rated value	0.5 ms; 0.5 / 3 / 10 / 20 ms
Encoder connection	
● Fixed current limitation for wire-break monitoring, min.	18 kΩ; 18 kohms: Rated voltage 24 V (15 to 35 V); 39 kohms: Rated voltage 48 V (30 to 60 V)
● Fixed current limitation for wire-break monitoring, max.	56 kΩ; Rated voltage 60 V (50 to 72 V)
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m; 600 m: 3, 10, 20 ms; 100 m: 0,5 ms
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	0.5 mA; 0.5 to 2 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
● Diagnostic alarm	Yes; Parameterizable
● Hardware interrupt	Yes; Parameterizable
Diagnoses	
● Diagnostic information readable	Yes; possible
● Wire break	Yes; I> 0.7 mA

© Copyright Siemes

Diagnostics indication LED	
● Status indicator digital input (green)	Yes
● Channel fault indicator F (red)	No
Potential separation	
Potential separation digital inputs	
● between the channels	Yes
● between the channels, in groups of	1
● between the channels and backplane bus	Yes
Isolation	
Isolation tested with	1 500 V AC
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weights	
Weight, approx.	600 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

Miscellaneous

General Product Approval | **EMV** | **For use in hazardous locations**

China RoHS | Miscellaneous | Manufacturer Declaration

For use in hazardous locations

FM | Type Examination Certificate

Maritime application

© Copyright Siemes

ABS

BUREAU VERITAS

DNV

LRS

NK / Nippon Kaiji Kyokai

PRS

Maritime application

RINA

RMRS

CCS (China Classification Society)

last modified: 7/14/2026

Subject to change without notice
© Copyright Siemes