Data sheet

6ES7521-7EH00-0AB0



SIMATIC S7-1500, digital input module DI 16x 24...125 V UC HF, 16 channels in groups of 1; input delay 0.05..20 ms; Input type 3 (IEC 61131); Diagnostics, hardware interrupts: Front connector (screw terminals or pushin) to be ordered separately

General information	
Product type designation	DI 16x24 125 V UC HF
HW functional status	FS01
Firmware version	V1.0.0
 FW update possible 	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
 Isochronous mode 	No
Prioritized startup	Yes
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V13 SP1 / -
 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
 PROFINET from GSD version/GSD revision 	V2.3 / -
Operating mode	
• DI	Yes
Counter	No
 Oversampling 	No
• MSI	Yes
Power	
Power available from the backplane bus	1.2 W
Power loss	
Power loss, typ.	2.2 W; At 24 V DC; 6.0 W at 125 V AC
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes; At 24 V DC
Input voltage	
Rated value (DC)	24 V; 48 V, 125 V
Rated value (AC)	24 V; 48 V, 125 V (50 - 60 Hz)
• for signal "0"	-5 +5 V
• for signal "1"	+11 +146 V
Input current	
● for signal "1", typ.	3 mA; At 24 V DC
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 1.6 / 3.2 / 12.8 / 20 ms parameterizable with DC,

	20 mag fived with AC
	20 ms fixed with AC
— at "0" to "1", min.	0.05 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
for interrupt inputs	V
— parameterizable	Yes
for technological functions	
— parameterizable	No
Cable length	4.000
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
 permissible quiescent current (2-wire sensor), 	1.5 mA
max.	
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Hardware interrupt	Yes
Diagnoses	
 Monitoring the supply voltage 	No
Wire-break	Yes; To I < 550 μA
Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
 Monitoring of the supply voltage (PWR-LED) 	No
 Channel status display 	Yes; green LED
 for channel diagnostics 	Yes; red LED
 for module diagnostics 	Yes; red LED
Potential separation	
Potential separation channels	
between the channels	Yes
 between the channels, in groups of 	1
between the channels and backplane bus	Yes
Permissible potential difference	
between different circuits	146 V DC/132 V AC
Isolation	110 1 50/102 1 1/10
	2,000 V DC
Isolation tested with	2 000 V DC
Standards, approvals, certificates	
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	0 °C
 horizontal installation, max. 	60 °C
vertical installation, min.	0 °C
vertical installation, max.	40 °C
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	240 g
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