6ES7521-1BP00-0AA0

Data sheet



SIMATIC S7-1500, digital input module, DI 64xDC 24V SNK/SRC BA, 64 channels in groups of 16, input delay typ. 3.2 ms, input type 3 (IEC 61131); sinking/sourcing input. 35 mm wide, cables and terminal blocks to be ordered separately as accessories

General information	
Product type designation	DI 64x24VDC BA
HW functional status	From 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 	No
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V16 with HSP 0319 / V17
 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 	V2.35 / -
Operating mode	
• DI	Yes
Counter	No
 Oversampling 	No
• MSI	Yes
Supply voltage	
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	24 V DC/4 A miniature circuit breaker with type B or C tripping characteristic
Power	
Power available from the backplane bus	0.6 W
Power loss	
Power loss, typ.	4.8 W
Digital inputs	
Number of digital inputs	64
Digital inputs, parameterizable	No
Source/sink input	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
 Number of simultaneously controllable inputs 	64; see additional description in the manual
Input voltage	
 Rated value (DC) 	24 V
● for signal "0"	-5 +5 V (reference potential is COM)
• for signal "1"	-1130 V; +11 +30 V (reference potential is COM)

Input current	
• for signal "1", typ.	2.7 mA
Input delay (for rated value of input voltage)	E. 110 (
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	3 ms
— at "0" to "1", max.	4 ms
— at "1" to "0", min.	3 ms
— at "1" to "0", max.	4 ms
for interrupt inputs	
— parameterizable	No
for technological functions	
— parameterizable	No
Cable length	
• 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	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnoses	
Monitoring the supply voltage	No
Wire-break	No
Short-circuit	No
Group error	No
Diagnostics indication LED	
RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
MAINT LED	No
 Monitoring of the supply voltage (PWR-LED) 	Yes; via SIMATIC TOP connect connection module
 Channel status display 	Yes; via SIMATIC TOP connect connection module
 for channel diagnostics 	No
 for module diagnostics 	No
Potential separation	
Potential separation channels	
between the channels	No
 between the channels, in groups of 	16; 32 when using SIMATIC TOP connect connection module
between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	(3)
	No
Suitable for safety functions	INU
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Ambient conditions	
Ambient conditions Ambient temperature during operation	
Ambient conditions Ambient temperature during operation • horizontal installation, min.	-30 °C
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Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max.	-30 °C 60 °C -30 °C
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Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions	-30 °C 60 °C -30 °C 40 °C
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width	-30 °C 60 °C -30 °C 40 °C 5 000 m
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width Height	-30 °C 60 °C -30 °C 40 °C 5 000 m 35 mm 147 mm
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width Height Depth	-30 °C 60 °C -30 °C 40 °C 5 000 m 35 mm 147 mm

Other

Note: Please order cable and connection modules separately

4/29/2021

last modified: