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Data sheet 6ES7521-1BP00-0AA0

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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	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
external protection for power supply lines (recommendation)	24 V DC/4 A miniature circuit breaker with type B or C tripping characteristic
Power	
Power consumption from the backplane bus	0.6 W
Power loss	
Power loss, typ.	4.8 W
Address area	
Address space per module	
● Inputs	8 byte
● Outputs	0 byte
Digital inputs	
Number of digital inputs	64
Digital inputs, parameterizable	No

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Sourcing/sinking input	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Pulse extension	No
Edge evaluation	No
Signal change flutter	No
Flutter observation window	No
Number of simultaneously controllable inputs	
● Number of simultaneously controllable inputs	64; see additional description in the manual
Digital input functions, parameterizable	
● Freely usable digital input	Yes
● Counter	No
● Digital input with oversampling	No
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	-5 ... +5 V (reference potential is COM)
● for signal "1"	-11 ... -30 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)	
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), max.	1.5 mA
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
Diagnostics indication LED	
● RUN LED	Yes; green LED
● ERROR LED	Yes; red LED
● 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)

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Standards, approvals, certificates	
Siemens Eco Profile (SEP)	Siemens EcoTech
Suitable for safety functions	No
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	18.9 kg
— global warming potential, (during production) [CO2 eq]	12.1 kg
— global warming potential, (during operation) [CO2 eq]	7.66 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-1.02 kg
Security	
signed firmware update	No
safely removing data	No
data integrity	No
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● vertical installation, max.	40 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	Restrictions for installation altitudes > 2 000 m, see manual
Absolute humidity	
● dew point, min.	-60 °C; suitable for dry room applications
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	250 g
Other	
Note:	Please order cable and connection modules separately

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 | EG-Konf. | UKCA | UL | KC

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

RCM | EAC | China RoHS | Manufacturer Declaration | UL | CCC-Ex

For use in hazardous locations | **Maritime application**

IECEx | ATEX | Type Examination Certificate | Miscellaneous | CCC-Ex | ABS

Maritime application

BUREAU VERITAS | DNV | LRS | NK / Nippon Kaiji Kyokai | RINA | CCS (China Classification Society)

Maritime application | **Environment**

KR (Korean Register of Shipping) | EPD | Siemens EcoTech

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