SIEMENS

Data sheet

6ES7521-1BL00-0AB0



SIMATIC S7-1500, digital input module DI 32x24 V DC HF, 32 channels in groups of 16; of which 2 inputs as counters can be used; input delay 0.05..20 ms input type 3 (IEC 61131); diagnostics; hardware interrupts: front connector (screw terminals or push-in) to be ordered separately

Figure similar

DI 32x24VDC HF
from FS04
V2.2.1
Yes
Yes; I&M0 to I&M3
Yes
Yes
V13 SP1 / -
V5.5 SP3 / -
V1.0 / V5.1
V2.3 / -
Yes
Yes
No
Yes
24 V
19.2 V
28.8 V
Yes
40 mA; 20 mA per group with 24 V DC supply
1.1 W
4.2 W
32
Yes
P-reading
Yes
Yes
Yes

— Number, max.	2
 — Counting frequency, max. 	6 kHz; FS04 and FW V2.2.1 or higher
— Counting width	32 bit
— Counting direction up/down	Up
Input voltage	
 Rated value (DC) 	24 V
• for signal "0"	-30 to +5 V
 for signal "1" 	+11 to +30V
Input current	
 for signal "1", typ. 	2.5 mA
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
— 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
	20 1115
for interrupt inputs	Vee
— parameterizable	Yes
for technological functions	
— parameterizable	Yes
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
Isochronous mode	
Filtering and processing time (TCI), min.	80 μs; At 50 μs filter time
Bus cycle time (TDP) min	250 us
Bus cycle time (TDP), min.	250 μs
Interrupts/diagnostics/status information	
Interrupts/diagnostics/status information Diagnostics function	250 μs Yes
Interrupts/diagnostics/status information Diagnostics function Alarms	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses	Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage	Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break	Yes Yes Yes Yes; to I < 350 µA
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit	Yes Yes Yes Yes; to I < 350 µA
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED	Yes Yes Yes Yes; to I < 350 µA No
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED	Yes Yes Yes Yes; to I < 350 µA No
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • ERROR LED	Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms	Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • for module diagnostics	Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels • between the channels, in groups of	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels, in groups of • between the channels and backplane bus	Yes Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Channel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels, in groups of between the channels and backplane bus between the channels and the power supply of the	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Channel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels between the channels and backplane bus between the channels and the power supply of the electronics	Yes Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Channel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels and backplane bus between the channels and the power supply of the electronics Isolation	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm • Hardware interrupt Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit Diagnostics indication LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels • between the channels and backplane bus • between the channels and the power supply of the electronics Isolation Isolation tested with	Yes Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Runnel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels between the channels and backplane bus between the channels and the power supply of the electronics Diagnostics Diagnostics Alarms Diagnostics Dia	Yes Yes Yes Yes Yes Yes Yes Yes; to I < 350 μA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED 707 V DC (type test)
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Runnel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels between the channels and backplane bus between the channels and the power supply of the electronics Diagnost Suitable for safety functions	Yes Yes Yes Yes Yes; to I < 350 µA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED Channel status display for channel diagnostics for module diagnostics for module diagnostics Detween the channels between the channels between the channels and backplane bus between the channels and the power supply of the electronics Isolation Isolation Estad with Standards, approvals, certificates Alarms Diagnostics Ambient conditions	Yes Yes Yes Yes Yes Yes Yes Yes; to I < 350 μA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED 707 V DC (type test)
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Hardware interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit Diagnostics indication LED RUN LED RUN LED RUN LED RUN LED Runnel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels between the channels and backplane bus between the channels and the power supply of the electronics Diagnost Suitable for safety functions	Yes Yes Yes Yes Yes Yes Yes Yes; to I < 350 μA No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED Yes; red LED Yes; red LED 707 V DC (type test)

60 °C
-30 °C; From FS05
40 °C
5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
35 mm
147 mm
129 mm
260 g

last modified:

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