



SIMATIC S7-1500, DIGITAL INPUT MODULE DI32 X DC24V, 32 CHANNELS IN GROUPS OF 16; INPUT DELAY 0.05... 20MS; INPUT TYPE 3 (IEC 61131); DIAGNOSIS, PROCESSALARMS

General information	
Hardware product version	E01
Firmware version	V2.0.0
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal can be configured/integrated as of version</li> </ul>	V12 / V12
<ul style="list-style-type: none"> <li>STEP 7 can be configured/integrated as of version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS as of GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3 / -
Operating mode	
<ul style="list-style-type: none"> <li>MSI</li> </ul>	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V

permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
<b>Input current</b>	
Current consumption, max.	40 mA; 20 mA per group with 24 V DC supply
<b>Power</b>	
Power available from the backplane bus	1.1 W
<b>Power losses</b>	
Power loss, typ.	4.2 W
<b>Digital inputs</b>	
Number of digital inputs	32
m/p-reading	p-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value, DC	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30 V
<b>Input current</b>	
• for signal "1", typ.	2.5 mA
<b>Input delay (for rated value of input voltage)</b>	
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
for interrupt inputs	
— Parameterizable	Yes
<b>Cable length</b>	
• Cable length, shielded, max.	1 000 m
• Cable length unshielded, max.	600 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— Permissible quiescent current (2-wire sensor), max.	1.5 mA

## Isochronous mode

Isochronous operation (application synchronized up to terminal)	Yes
Filtering and processing time (TCI), min.	80 µs; At 50 µs filter time
Bus cycle time (TDP), min.	250 µs

## Interrupts/diagnostics/status information

### Alarms

• Diagnostic alarm	Yes
• Hardware interrupt	Yes

### Diagnostic messages

• Diagnostics	Yes
• Monitoring the supply voltage	Yes
• Wire break	Yes; to I < 350 µA
• Short circuit	No
• Fuse blown	No

### Diagnostics indication LED

• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• Monitoring of the supply voltage (PWR-LED)	Yes; Green LED
• Channel status display	Yes; Green LED
• for channel diagnostics	Yes; Red LED
• for module diagnostics	Yes; Red LED

## Galvanic isolation

### Electrical isolation channels

• between the channels	Yes
• between the channels, in groups of	16
• between the channels and the backplane bus	Yes
• between the channels and the supply voltage of the electronics	No

## Permissible potential difference

between different circuits	75 V DC/60 V AC (base isolation)
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## Isolation

Isolation checked with	707 V DC (type test)
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## Decentralized operation

Prioritized startup	Yes
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## Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

### Weights

Weight, approx.	260 g
<b>last modified:</b>	30.09.2014