



SIMATIC S7-1500 Digital input module, DI 32x24 V DC BA, 32 channels in groups of 16, Input delay typ. 3.2 ms, Input type 3 (IEC 61131); Delivery incl. front connector Push-in



General information	
Product type designation	DI 32x24VDC BA
HW functional status	from FS01
Firmware version	V1.0.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
<ul style="list-style-type: none"> <li>Prioritized startup</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 / V13
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	V2.3 / -
Operating mode	
<ul style="list-style-type: none"> <li>DI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Counter</li> </ul>	No
<ul style="list-style-type: none"> <li>Oversampling</li> </ul>	No
<ul style="list-style-type: none"> <li>MSI</li> </ul>	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
Power	
Power consumption from the backplane bus	1.05 W
Power loss	
Power loss, typ.	3 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	4 byte
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	0 byte
Digital inputs	
Number of digital inputs	32
Digital inputs, parameterizable	No
Sourcing/sinking input	P-reading

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
<b>Number of simultaneously controllable inputs</b>	
• Number of simultaneously controllable inputs	32
<b>Digital input functions, parameterizable</b>	
• Freely usable digital input	Yes
• Counter	No
• Digital input with oversampling	No
<b>Input voltage</b>	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
<b>Input current</b>	
• for signal "1", typ.	2.7 mA
<b>Input delay (for rated value of input voltage)</b>	
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
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
<b>Alarms</b>	
• Diagnostic alarm	No
• Hardware interrupt	No
<b>Diagnoses</b>	
• Monitoring the supply voltage	No
• Wire break	No
• Short-circuit	No
<b>Diagnostics indication LED</b>	
• 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	No
• for module diagnostics	No
<b>Potential separation</b>	
Potential separation channels	
• between the channels	No
• between the channels, in groups of	16
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	No
<b>Isolation</b>	

Isolation tested with	707 V DC (type test)		
<b>Standards, approvals, certificates</b>			
Siemens Eco Profile (SEP)	Siemens EcoTech		
Suitable for safety functions	No		
<b>Ecological footprint</b>			
• environmental product declaration	Yes		
<b>Global warming potential</b>			
— 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		
<b>Security</b>			
signed firmware update	No		
safely removing data	No		
data integrity	No		
<b>Ambient conditions</b>			
<b>Ambient temperature during operation</b>			
• horizontal installation, min.	-30 °C; from FS04		
• horizontal installation, max.	60 °C		
• vertical installation, min.	-30 °C; from FS04		
• vertical installation, max.	40 °C		
<b>Altitude during operation relating to sea level</b>			
• Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual		
<b>Absolute humidity</b>			
• dew point, min.	-60 °C; suitable for dry room applications		
<b>Dimensions</b>			
Width	25 mm		
Height	147 mm		
Depth	129 mm		
<b>Weights</b>			
Weight, approx.	260 g		
<b>Other</b>			
Note:	Supplied incl. 40-pole push-in front connectors		
<b>Classifications</b>			
		<b>Version</b>	<b>Classification</b>
	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
<b>Approvals / Certificates</b>			
<b>General Product Approval</b>			



[Miscellaneous](#)

[Manufacturer Declaration](#)



General Product Approval

For use in hazardous locations



[China RoHS](#)

[Manufacturer Declaration](#)

[EM](#)



For use in hazardous locations

[EM](#)

[CCC-Ex](#)



[Type Examination Certificate](#)

[Miscellaneous](#)

For use in hazardous locations

Maritime application

[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application

Environment



[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)



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