



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
<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>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V16 with HSP 0319 / V17
<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>	V2.35 / -
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	
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	
<ul style="list-style-type: none"> <li>Number of simultaneously controllable inputs</li> </ul>	64; see additional description in the manual
Input voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>for signal "0"</li> </ul>	-5 ... +5 V (reference potential is COM)

<ul style="list-style-type: none"> <li>• for signal "1"</li> </ul>	-11 ... -30 V; +11 ... +30 V (reference potential is COM)
<b>Input current</b>	
<ul style="list-style-type: none"> <li>• for signal "1", typ.</li> </ul>	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>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> <li>• unshielded, max.</li> </ul>	1 000 m 600 m
<b>Encoder</b>	
Connectable encoders	
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes 1.5 mA
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>• Diagnostic alarm</li> <li>• Hardware interrupt</li> </ul>	No No
<b>Diagnoses</b>	
<ul style="list-style-type: none"> <li>• Monitoring the supply voltage</li> <li>• Wire-break</li> <li>• Short-circuit</li> <li>• Group error</li> </ul>	No No No No
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• RUN LED</li> <li>• ERROR LED</li> <li>• MAINT LED</li> <li>• Monitoring of the supply voltage (PWR-LED)</li> <li>• Channel status display</li> <li>• for channel diagnostics</li> <li>• for module diagnostics</li> </ul>	Yes; green LED Yes; red LED No Yes; via SIMATIC TOP connect connection module Yes; via SIMATIC TOP connect connection module No No
<b>Potential separation</b>	
Potential separation channels	
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels, in groups of</li> <li>• between the channels and backplane bus</li> </ul>	No 16; 32 when using SIMATIC TOP connect connection module Yes
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Suitable for safety functions	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> <li>• vertical installation, min.</li> <li>• vertical installation, max.</li> </ul>	-30 °C 60 °C -30 °C 40 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>	5 000 m
<b>Dimensions</b>	
Width	35 mm

Height	147 mm
Depth	129 mm
<b>Weights</b>	
Weight, approx.	250 g
<b>Other</b>	
Note:	Please order cable and connection modules separately
<b>last modified:</b>	4/29/2021 