

SIMATIC S7-1500

Installation Instructions

6ES7521-1FH00-0AA0

SM 521 16-Channel Digital Input Module

INPUTS	VOLTAGE	DELAY	GROUPING
16 AC	120/230 V AC	20 ms	4 × 4

01 PRODUCT VERIFICATION

Article number	6ES7521-1FH00-0AA0
Product	SM 521 16-Channel Digital Input Module
Family	SIMATIC S7-1500
Product type	SM 521 DI 16x230 V AC BA
Digital inputs	16
Channel grouping	4 groups of 4
Input type	P-reading, IEC 61131 Type 1
Rated input voltage	120/230 V AC

02 BEFORE INSTALLATION

- Disconnect the S7-1500 station and all 120/230 V AC field circuits before handling the module or front connector.
- Install the module in the configured S7-1500 slot and fit the separately ordered compatible front connector.

OFFICIAL INSTALLATION DRAWING

The selected Siemens source page is retained as the installation and wiring reference. Use the current controlled manual for final work.

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	Yes; Firmware V3.0.0 or higher																																													
safely removing data	No																																													
data integrity	Yes; Firmware V3.0.0 or higher																																													
Ambient conditions																																														
Ambient temperature during operation																																														
• horizontal installation, min.	-30 °C; From FS05																																													
• horizontal installation, max.	60 °C																																													
• vertical installation, min.	-30 °C; From FS05																																													
• 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.	300 g																																													
Other																																														
Note:	please order front connectors (screw-in/push-in) separately																																													
Classifications																																														
	<table><tr><td></td><td>Version</td><td>Classification</td></tr><tr><td>eClass</td><td>16</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>14</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>12</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>9.1</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>9</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>8</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>7.1</td><td>27-24-22-04</td></tr><tr><td>eClass</td><td>6</td><td>27-24-22-04</td></tr><tr><td>ETIM</td><td>10</td><td>EC001419</td></tr><tr><td>ETIM</td><td>9</td><td>EC001419</td></tr><tr><td>ETIM</td><td>8</td><td>EC001419</td></tr><tr><td>ETIM</td><td>7</td><td>EC001419</td></tr><tr><td>IDEA</td><td>4</td><td>3566</td></tr><tr><td>UNSPSC</td><td>15</td><td>32-15-17-05</td></tr></table>		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
	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																																														
Miscellaneous	Manufacturer Declaration																																													
																																														
																																														
																																														
General Product Approval	For use in hazardous locations																																													
6ES75211FH000AA0																																														
Page 3/4	8/13/2026																																													
Subject to change without notice																																														
© Copyright Siemens																																														

04 INSTALLATION SEQUENCE

01

Disconnect the S7-1500 station and all 120/230 V AC field circuits before handling the module or front connector.

02

Install the module in the configured S7-1500 slot and fit the separately ordered compatible front connector.

03

Route and terminate the four input groups according to the approved AC safety, isolation and circuit-protection design.

04

Verify the field voltage, channel addressing, input delay and diagnostic indications before returning the station to service.

05 OFFICIAL DOCUMENTATION

SIMATIC S7-1500 SM 521 Technical Data (6ES7521-1FH00-0AA0)

[Open current Siemens manual](#)

[Open Siemens exact product record](#)

06 SUPPORT CONTACT

AMIKON PRODUCT SUPPORT

Amikon Limited

+86-18020776786

INFO@AMIKON.CN

AMIKONG.COM