

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Selected official pages for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6ES7321-1BH01-0AA0

S7-300 SM 321 Digital Input Module. Relevant section pages: 93, 129. Adjacent model text on shared pages is outside this product reference.

OFFICIAL SOURCE

PCS 7 Released modules V9.0 SP1; 12/2017, A5E41674051-AB

Siemens original documentation and product reference

This package contains a historical Siemens released-module overview, not an installation manual. Only the exact 1BH01 row applies. Terminal wiring, detailed electrical limits and replacement equivalence are not established by these pages.

AMIKON PRODUCT SUPPORT

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Amikon Limited prepared this independent reference package. Selected manufacturer pages follow with their original content and pagination visible.

SIMATIC

Process Control System PCS 7 Released modules (V9.0 SP1)

Offer overview

valid for PCS 7 as of V9.0 SP1

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines, and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit:

<https://www.siemens.com/industrialsecurity>

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under

<https://www.siemens.com/industrialsecurity>.

18.4 SM DI

Product name	Article no.	Brief description	Properties (Page 129)			
			F	C	R	T
SM321 DI 16xDC24V	6ES7 321-1BH01-0AA0	Digital input module 16 DI; DC 24 V; grouping 16	W	M		10/ 04
SM321 DI 16xDC24V	6ES7 321-1BH02-0AA0	Digital input module 16 DI; DC 24 V; grouping 16	W P E	M	M	
SM321 DI 16xDC24V	6ES7 321-1BH10-0AA0	Digital input module 16 DI; 24 V DC; grouping 16, high speed, sup- ports isochronous mode	W P	M		
SM321 DI 16xDC24V	6ES7 321-1BH50-0AA0	Digital input module 16 DI; DC 24 V; grouping 16, active low	W P	M		
SM321 DI 16xDC24V	6ES7 321-1BH81-0AA0	Digital input module 16 DI; DC 24 V; extended environmental conditions	W	M		10/ 00
SM321 DI 16xDC24V	6ES7 321-1BH82-0AA0	Digital input module 16 DI; DC 24 V; extended environmental conditions	W	M		11/ 03
SM321 DI 32xDC24V	6ES7 321-1BL00-0AA0	Digital input module 32 DI; DC 24 V; grouping 32	W P E	M	M	
SM321 DI 32xDC24V	6ES7 321-1BL80-0AA0	Digital input module 32 DI; DC 24 V; extended environmental conditions	W	M		11/ 03
SM321 DI 64xDC24V	6ES7 321-1BP00-0AA0	Digital input module 64 DI; DC 24 V; grouping 16, active high or active low	W P	M		
SM321 DI 16xAC/DC24...48V	6ES7 321-1CH00-0AA0	Digital input module 16 DI; AC / DC 24 ...48 V; grouping 1	W P E SM	M		
SM321 DI 16xDC48...120V	6ES7 321-1CH20-0AA0	Digital input module 16 DI; DC 48 ...120 V; grouping 8	W P E SM	M		
SM321 DI 16xDC48...120V	6ES7 321-1CH80-0AA0	Digital input module 16 DI; DC 48 ...120 V; grouping 8, extended environmental conditions	W	M		11/ 03
SM321 DI 16xAC120V	6ES7 321-1EH01-0AA0	Digital input module 16 DI; AC 120 V; grouping 4	W	M		09/ 01
SM321 DI 32xAC120V	6ES7 321-1EL00-0AA0	Digital input module 32 DI; AC 120 V; 32 Pt 120 V AC input - IEC Type II - 8 Pts/Comm	W P SM	M		

Appendix

A.1 Properties

Properties in the module list

Col-umn	Meaning of column	Identifier	Meanings
F	Functions	P	Component has been released for PROFINET
		W	Module wizard is supported
		E	Component is released for central use with PCS 7 AS mEC RTX
		Y	Component can be installed behind the Y-Link
		SM	Component is released for use behind the IM 650-8
C	CiR support	X	Station can be installed and removed with CiR
		S	Station can be reconfigured "Online"
		M	Module can be installed and removed with CiR
		O	Module parameters can be changed "online"
		OS	Module parameters can be changed "online" only in standard mode
R	Redundant I/O	X	Component is supported
		A	Redundant connection is possible
		M	By module
		G	By group
		C	By channel
T	Discontinuation		On specified date (month/year)