

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6ES7132-6BH01-0BA0

Siemens 6ES7132-6BH01-0BA0 is a SIMATIC ET 200SP standard digital output module with sixteen 24 V DC source outputs. Each channel can switch up to 0.5 A, while configurable diagnostics cover short circuits, wire breaks and supply-voltage conditions.

The module fits ET 200SP BaseUnit type A0 and supports substitute values for individual outputs. Its compact design is intended for decentralized actuator control, including solenoid valves, DC contactors and indicator lights, with total module current subject to installation-temperature derating.

OFFICIAL SOURCE

ET 200SP DQ 16x24VDC/0.5A ST Equipment Manual

A5E03574420-AE

[Open current Siemens source](#)

Properties

The module has the following technical properties:

- Digital output module with 16 outputs
- Source output (PNP, P-switching)
- Supply voltage L+
- Output current 0.5 A (per channel)
- Total current max. 8 A
(see derating: Technical specifications (Page 27))
- Configurable diagnostics (per module)
- Configurable substitute values (per channel)
- Suitable for solenoid valves, DC contactors, and indicator lights
- Extended spare parts compatibility (see product information (<https://support.industry.siemens.com/cs/ww/en/view/73021864>))

The module supports the following functions:

Table 3-1 Version dependencies of the functions

Function	HW version	FW version	STEP 7		GSD file	
			TIA Portal	V5.x	PROFINET IO	PROFIBUS DP
Identification data I&M0 to I&M3	FS01	V0.0.0 and higher	V14 or higher with HSP 0222	V5.5 SP3 or higher with HSP 0230 V7.0	X	X
Reparameterizing in RUN	FS01	V0.0.0 and higher	V14 or higher with HSP 0222	V5.5 SP3 or higher with HSP 0230 V7.0	X	X
PROFenergy	FS01	V0.0.0 and higher	V14 or higher with HSP 0222	V5.5 SP3 or higher with HSP 0230 V7.0	X	-
Value status	FS01	V0.0.0 and higher	V14 or higher with HSP 0222	V5.5 SP3 or higher with HSP 0230 V7.0	X	X

Accessories

The following accessories are available optionally:

- Labeling strips
- Color-coded labels
- Reference identification label
- Shield connection

See also

You can find more information on accessories in the ET 200SP Distributed I/O System (<https://support.automation.siemens.com/WW/view/en/58649293>) System Manual.

Technical specifications

7.1 Technical specifications

Technical specifications of the DQ 16x24VDC/0.5A ST

The following table lists the technical specifications on the issue date. You will find a data sheet including daily updated technical specifications on the Internet

(<https://support.industry.siemens.com/cs/ww/en/pv/6ES7132-6BH01-0BA0/td?dl=en>).

Article number	6ES7132-6BH01-0BA0
General information	
Product type designation	DQ 16x24VDC/0.5 ST
HW functional status	from FS21
Firmware version	V0.0
• FW update possible	No
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC00
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	STEP 7 TIA V14 with HSP0222 / integrated as of TIA V15
• STEP 7 configurable/integrated from version	V5.5 SP3 with HSP0230 V7.0 / integrated as of V5.6 SP1
• PCS 7 configurable/integrated from version	V8.1 SP1
• PROFIBUS from GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
• PROFINET from GSD version/GSD revision	GSDML V2.3
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Oversampling	No
• MSO	No

7.1 Technical specifications

Article number	6ES7132-6BH01-0BA0
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
Input current	
Current consumption, max.	30 mA; without load
output voltage / header	
Rated value (DC)	24 V
Power loss	
Power loss, typ.	1 W
Address area	
Address space per module	
• Address space per module, max.	2 byte; + 2 bytes for QI information
Hardware configuration	
Automatic encoding	Yes
• Mechanical coding element	Yes
• Type of mechanical coding element	Type A
Selection of BaseUnit for connection variants	
• 1-wire connection	BU type A0
• 2-wire connection	BU type A0 with AUX terminals or potential distributor module
• 3-wire connection	BU type A0 with AUX terminals or potential distributor module
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	16
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
output characteristic acc. to IEC 61131, type 0.5	Yes
Short-circuit protection	Yes; Electronic
• Response threshold, typ.	1 A; 0.7 to 1.3 A
Open-circuit detection	Yes
Limitation of inductive shutdown voltage to	Typ. L+ (-50 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• with resistive load, max.	0.5 A
• with inductive load, max.	0.5 A
• on lamp load, max.	5 W

Article number	6ES7132-6BH01-0BA0
Load resistance range - lower limit - upper limit	48 Ω 12 kΩ
Output current - for signal "1" rated value - for signal "1" permissible range, max. - for signal "0" residual current, max.	0.5 A 0.5 A 0.1 mA
Output delay with resistive load "0" to "1", typ. "1" to "0", typ.	50 μs 100 μs
Parallel switching of two outputs - for uprating - for redundant control of a load	No Yes
Switching frequency - with resistive load, max. - with inductive load, max. - on lamp load, max.	100 Hz 0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads" 10 Hz
Total current of the outputs - Current per channel, max. - Current per module, max.	0.5 A 8 A; see Equipment Manual "Derating curve"
Total current of the outputs (per module)	
horizontal installation - up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max.	8 A 6 A 4 A
vertical installation - up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max.	8 A 6 A 4 A
Cable length - shielded, max. - unshielded, max.	1 000 m 600 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms Diagnostic alarm	Yes