SIEMENS

Data sheet

6ES7132-6BF01-0AA0

SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Basic, Source output (PNP,P-switching) Packing unit: 1 piece, fits to BU-type A0, Colour Code CC02, substitute value output, module diagnostics for: supply voltage



Product type designation	DQ 8x24 VDC/0.5 A BA
Firmware version	V0.0
 FW update possible 	No
usable BaseUnits	BU type A0
Color code for module-specific color identification	CC02
plate	
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated as of 	V14
version	
 STEP 7 configurable/integrated as of version 	V5.5 SP3
 PROFIBUS as of GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher
 PROFINET as of GSD version/GSD revision 	GSDML V2.3
Operating mode	
• DQ	Yes
 DQ with energy-saving function 	No
• PWM	No

General information

Oversampling	No
• MSO	No
Redundancy	
Redundancy capability	Yes
	105
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.	45 mA; without load
Output voltage	24 V
Rated value (DC)	24 V
Power loss	
Power loss, typ.	1 W
Address area	
Address space per module	
Outputs	1 byte
Hardware configuration	
Automatic encoding	Yes
Mechanical coding element	Yes
Selection of BaseUnit for connection variants	
• 1-wire connection	BU type A0
• 2-wire connection	BU type A0
3-wire connection	BU type A0 with AUX terminals
• 4-wire connection	BU type A0 + Potential isolation module
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	8
Current-sourcing	Yes
Short-circuit protection	Yes; per channel, electronic
 Response threshold, typ. 	1 A
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
• on lamp load, max.	5 W
Load resistance range	
lower limit	48 Ω
• upper limit	100 kΩ
apportant.	

• for signal "1" rated value 0.5 A • for signal "1" permissible range, max. 0.5 A • for signal "0" residual current, max. 10 µA Output delay with resistive load	Output current	
ior signal "0" residual current, max. 10 μA Output delay with resistive load 100 μs; at rated load ion" to "n", max. 100 μs; at rated load Parallel switching of two outputs ion max. ion re dundant control of a load Yes Switching frequency ion Haz with inductive load, max. 100 Hz is with inductive load, max. 10 Hz is on lamp load, max. 10 Hz on lamp load, max. 0.5 A is current of the outputs 0.5 A is current per channel, max. 4 A Total current of the outputs (per module) is at a data of the outputs (per module) is current per channel, max. 4 A outp to 50 °C, max. 4 A - up to 60 °C, max. 4 A; in all other mounting positions - up to 60 °C, max. 4 A; in all other mounting positions - up to 50 °C, max. 600 m Suble length is all other moun	 for signal "1" rated value 	0.5 A
Output delay with resistive load 100 µs; at rated load • 1°1 to 1°1, max. 150 µs; at rated load • 1°1 to 1°0; max. 150 µs; at rated load Parallel switching of two outputs No • for redundant control of a load Yes Switching frequency 100 Hz • with resistive load, max. 100 Hz • or lamp load, max. 100 Hz • or lamp load, max. 0.5 A • Current per channel, max. 0.5 A • Current per module, max. 4 A • Output do °C, max. 4 A • up to 30 °C, max. 4 A - up to 40 °C, max. 4 A - up to 60 °C, max. 4 A - up to 50 °C, max. 4 A - up to 60 °C, max. 4 A - up to 50 °C, max. 4 A - up to 60 °C, max. 4 A; in all other mounting positions - up to 60 °C, max. 4 A; in all other mounting positions - up to 60 °C, max. 4 A; in all other mounting positions - up to 60 °C, max. 600 m Isochronous operation (application synchronized up to terminal) No <td> for signal "1" permissible range, max. </td> <td>0.5 A</td>	 for signal "1" permissible range, max. 	0.5 A
• "0" to "1", max.100 µs; at rated loadParallel switching of two outputs• for uprainingNo• for routpatingNo• for routpatingVesSwitching frequency100 Hz• with resistive load, max.2 Hz• with resistive load, max.100 Hz• or inamp load, max.100 Hz• or inamp load, max.0.5 A• Current per channel, max.0.5 A• Current per channel, max.4 A• Current per module, max.4 A• Data Current of the outputs (per module)• Data Current of the outputs (per module)• outputs 00 °C, max.4 A- up to 30 °C, max.4 A- up to 50 °C, max.4 A- up to 60 °C, max.4 A- up to 60 °C, max.4 A- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.4 A, in all other mounting positions- up to 60 °C, max.600 mSouthous modelInternounting positions- up to 50 °C, max.1000 m- up to 50 °C, max.600 mSouthorous operation (application synchronized up to terminal)NoIsochronous operation (application synchronized up to terminal)NoPiagnostic sfunctionYesSubstitue values connectableYesAlarmsYes• Nontoring the supply voltageYes	 for signal "0" residual current, max. 	10 µA
• "I" to "o", max.150 µs; at rated loadParallel switching of two outputs• for uprainingNo• for uprainingNo• for redundant control of a loadYesSwitching frequency100 Hz• with inductive load, max.100 Hz• on lamp load, max.10 Hz• on lamp load, max.0.5 A• Current per channel, max.4 A• Current per module, max.4 A• Data current of the outputs (per module)• Indizontal installation4 A• up to 30 °C, max.4 A• up to 50 °C, max.9 O• to maining1000 m• control outper to the module outper to	Output delay with resistive load	
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• for upratingNo• for redundant control of a loadYesSwitching frequency100 Hz• with resistive load, max.2 Hz• on lamp load, max.10 HzTotal current of the outputs0.5 A• Current per channel, max.4 A• Outputs (per module)4 ATotal current of the outputs (per module)4 A• horizontal installation4 A- up to 30 °C, max.4 A- up to 30 °C, max.4 A- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.4 A, in all other mounting positions- up to 50 °C, max.600 mStochronous operation (application synchronized up to terminal)NoIsolarostic functionYesSubstitute values connectableYesAlarmsYes• Nonitoring the supply voltageYes	• "1" to "0", max.	150 μs; at rated load
for redundant control of a load Yes Switching frequency 100 Hz • with resistive load, max. 2 Hz • on lamp load, max. 0 Hz • on lamp load, max. 0 Hz • Total current of the outputs 0.5 A • Current per channel, max. 4 A • Current per module, max. 4 A Total current of the outputs (per module) 4 A • oup to 50 °C, max. 4 A - up to 50 °C, max. 600 °C - up to 50 °C, max. 600 °C - up to 50 °C, max. 1000 °C - up to 50 °C, max. 600 °C - up t	Parallel switching of two outputs	
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• with resistive load, max.100 Hz• with inductive load, max.2 Hz• on lamp load, max.10 HzTotal current of the outputs0.5 A• Current per channel, max.0.5 A• Current per module, max.4 A• Current per module (per module)horizontal installation- up to 30 °C, max.4 A- up to 50 °C, max.4 A- up to 60 °C, max.4 A- up to 60 °C, max.4 A- up to 50 °C, max.600 mSolelength1000 m• unshielded, max.600 mIsochronous operation (application synchronized up to terminal)NoInterrupt//diagnostic/status informationYesDiagnostic slunctionYesSubstitute values connectableYesAlarmsYesDiagnostic alarmYesDiagnostic alarmYesNonttoring the supply voltageYes	 for redundant control of a load 	Yes
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Total current of the outputs 0.5 Å • Current per module, max. 4 Å • Current of the outputs (per module) 4 Å horizontal installation 4 Å - up to 30 °C, max. 4 Å - up to 50 °C, max. 4 Å - up to 50 °C, max. 4 Å - up to 60 °C, max. 4 Å; in all other mounting positions - up to 40 °C, max. 4 Å; in all other mounting positions - up to 40 °C, max. 4 Å; in all other mounting positions - up to 50 °C, max. 4 Å; in all other mounting positions - up to 50 °C, max. 600 m Stachronous operation (application synchronized up to therminal) 1000 m Isochronous operation (application synchronized up to therminal) No Isolagnostics function Yes Substitute values connectable Yes Diagnostic alarm Yes Diagnostic alarm Yes Diagnostic alarm Yes <	 with inductive load, max. 	2 Hz
• Current per channel, max.0.5 Å• Current per module, max.4 ÅTotal current of the outputs (per module)horizontal installation- up to 30 °C, max.4 Å- up to 50 °C, max.4 Å- up to 50 °C, max.4 Å- up to 60 °C, max.4 Å- up to 60 °C, max.4 Å- up to 50 °C, max.4 Å; in all other mounting positions- up to 30 °C, max.4 Å; in all other mounting positions- up to 50 °C, max.4 Å; in all other mounting positions- up to 50 °C, max.600 mSoble length1000 mushielded, max.600 mIsochronous operation (application synchronized up to the reminal)NoInterrupts/diagnostics/status informationYesDiagnostic functionYesOlagnostic alarmYesDiagnostic alarmYesMonitoring the supply voltageYes	• on lamp load, max.	10 Hz
• Current per module, max. 4 A Total current of the outputs (per module) horizontal installation up to 30 °C, max. 4 A -up to 40 °C, max. 4 A -up to 50 °C, max. 4 A -up to 60 °C, max. 4 A -up to 50 °C, max. 4 A -up to 50 °C, max. 4 A; in all other mounting positions -up to 50 °C, max. 4 A; in all other mounting positions -up to 50 °C, max. 4 A; in all other mounting positions -up to 50 °C, max. 4 A; in all other mounting positions -up to 50 °C, max. 600 m Sobele length 1000 m • unshielded, max. 600 m Isochronous operation (application synchronized up to terminal) No Isochronous operation (application synchronized up to terminal) No Isognostics function Yes Substitute values connectable Yes Alarms Ves Diagnostic alarm Yes Diagnostic messages Yes </td <td>Total current of the outputs</td> <td></td>	Total current of the outputs	
Total current of the outputs (per module) horizontal installation	 Current per channel, max. 	0.5 A
horizontal installation 4 A	• Current per module, max.	4 A
up to 30 °C, max.4 Å up to 40 °C, max.4 Å up to 50 °C, max.4 Å up to 60 °C, max.4 Å up to 30 °C, max.4 Å; in all other mounting positions up to 30 °C, max.4 Å; in all other mounting positions up to 40 °C, max.4 Å; in all other mounting positions up to 50 °C, max.4 Å; in all other mounting positions up to 50 °C, max.4 Å; in all other mounting positions up to 50 °C, max.4 Å; in all other mounting positions up to 50 °C, max.1000 m up to 50 °C, max.1000 m up to 50 °C, max.600 mIsochronous operation (application synchronized up to terminal)NoInterrupts/diagnostics/status informationYesDiagnostics functionYesAlarms	Total current of the outputs (per module)	
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up to 50 °C, max. 4 Å up to 50 °C, max. 4 Å up to 60 °C, max. 4 Å vertical installation 4 Å; in all other mounting positions up to 30 °C, max. 4 Å; in all other mounting positions up to 40 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 4 Å; in all other mounting positions up to 50 °C, max. 1000 m • shielded, max. 600 m Isochronous operation (application synchronized up to terminal) No Interrupts/diagnostics/status information Yes Substitute values connectable Yes Alarms Ves Diagnostic messages Yes • Monitoring the supply voltage Yes	— up to 30 °C, max.	4 A
up to 60 °C, max. 4 Å	— up to 40 °C, max.	4 A
vertical installation 4 A; in all other mounting positions - up to 30 °C, max. 4 A; in all other mounting positions - up to 40 °C, max. 4 A; in all other mounting positions - up to 50 °C, max. 4 A; in all other mounting positions - up to 50 °C, max. 4 A; in all other mounting positions Cable length 1 000 m • shielded, max. 600 m • unshielded, max. 600 m Isochronous operation (application synchronized up to terminal) No Interrupts/diagnostics/status information Ves Substitute values connectable Yes Alarms Yes Diagnostic alarm Yes • Diagnostic nessages Yes • Monitoring the supply voltage Yes	— up to 50 °C, max.	4 A
up to 30 °C, max.4 A; in all other mounting positions-up to 40 °C, max.4 A; in all other mounting positions-up to 50 °C, max.4 A; in all other mounting positionsCable length1000 m• unshielded, max.600 m• unshielded, max.600 mIsochronous modeIsochronous operation (application synchronized up to terminal)NoNoDiagnostics functionYesSubstitute values connectableYes• Diagnostic alarmYes• Monitoring the supply voltageYes	— up to 60 °C, max.	4 A
up to 40 °C, max.4 A; in all other mounting positions up to 50 °C, max.4 A; in all other mounting positionsCable length1000 m• shielded, max.600 m• unshielded, max.600 mIsochronous modeIsochronous operation (application synchronized up to terminal)NoNoDiagnostics/status informationYesSubstitute values connectableYesAlarmsYes• Diagnostic alarmYesDiagnostic messagesYes• Monitoring the supply voltageYes	vertical installation	
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Cable length 1 000 m • shielded, max. 600 m • unshielded, max. 600 m Isochronous mode Isochronous operation (application synchronized up to terminal) Isochronous operation (application synchronized up to terminal) No Interrupts/diagnostics/status information Yes Substitute values connectable Yes Alarms Yes • Diagnostic alarm Yes Diagnostic messages Yes • Monitoring the supply voltage Yes	— up to 40 °C, max.	4 A; in all other mounting positions
• shielded, max.1 000 m• unshielded, max.600 mIsochronous modeNoIsochronous operation (application synchronized up to terminal)NoInterrupts/diagnostics/status informationYesDiagnostics functionYesSubstitute values connectableYesAlarmsYes• Diagnostic alarmYesDiagnostic messagesYes• Monitoring the supply voltageYes	— up to 50 °C, max.	4 A; in all other mounting positions
• unshielded, max. 600 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information No Diagnostics function Yes Substitute values connectable Yes Alarms Yes Diagnostic alarm Yes Diagnostic messages Yes • Monitoring the supply voltage Yes	Cable length	
Isochronous mode Isochronous operation (application synchronized up to terminal) No Interrupts/diagnostics/status information Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Yes Alarms Yes Diagnostic alarm Yes Diagnostic messages Yes • Monitoring the supply voltage Yes	• shielded, max.	1 000 m
Isochronous operation (application synchronized up to terminal) No Interrupts/diagnostics/status information Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Yes Alarms Yes • Diagnostic alarm Yes Diagnostic messages Yes • Monitoring the supply voltage Yes	• unshielded, max.	600 m
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Diagnostics function Yes Substitute values connectable Yes Alarms Yes • Diagnostic alarm Yes Diagnostic messages Yes	to terminal)	
Substitute values connectable Yes Alarms Yes • Diagnostic alarm Yes Diagnostic messages Yes • Monitoring the supply voltage Yes	Interrupts/diagnostics/status information	
Alarms • Diagnostic alarm Diagnostic messages • Monitoring the supply voltage Yes	Diagnostics function	Yes
 Diagnostic alarm Yes Diagnostic messages Monitoring the supply voltage Yes 		Yes
Diagnostic messages Monitoring the supply voltage Yes		
Monitoring the supply voltage Yes	-	Yes
• Wire-break No	 Monitoring the supply voltage 	
	• Wire-break	No

Short-circuit	No		
Diagnostics indication LED			
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED		
Channel status display	Yes; Green LED		
 for channel diagnostics 	No		
• for module diagnostics	Yes; green/red DIAG LED		
Potential separation	Potential separation		
Potential separation channels			
 between the channels 	No		
 between the channels and backplane bus 	Yes		
 between the channels and the power supply of 	No		
the electronics			
Isolation			
Isolation tested with	707 V DC (type test)		
Ambient conditions			
Ambient temperature during operation			
 horizontal installation, min. 	0°0		
 horizontal installation, max. 	60 °C		
 vertical installation, min. 	0 °C; in all other mounting positions		
 vertical installation, max. 	50 °C; in all other mounting positions		
Altitude during operation relating to sea level			
 Ambient air temperature-barometric pressure- 	On request: Ambient temperatures lower than 0 °C (without		
altitude	condensation) and/or installation altitudes greater than 2 000 m		
Dimensions			
Width	15 mm		
Height	73 mm		
Depth	58 mm		
Weights			
Weight, approx.	30 g		
last modified:	03/10/2018		