6ES7132-6BF01-2AA0

Data sheet



SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Basic, Source output (PNP,P-switching) Packing unit: 10 pieces, fits to BU-type A0, Colour Code CC02, aubstitute value output, module diagnostics for: supply voltage

HW functional status From Firmware version V0.0 ● FW update possible No	type A0
Firmware version V0.0 • FW update possible No usable BaseUnits BU to	type A0
• FW update possible No usable BaseUnits BU t	type A0
usable BaseUnits BU t	
Color code for module-specific color identification plate CCC	02
Product function	
• I&M data Yes;	s; I&M0 to I&M3
• Isochronous mode No	
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	4
 STEP 7 configurable/integrated from version V5.5	5 SP3
 PROFIBUS from GSD version/GSD revision 	e GSD file each, Revision 3 and 5 and higher
PROFINET from GSD version/GSD revision GSE	DML V2.3
Operating mode	
• DQ Yes	
• DQ with energy-saving function No	
• PWM No	
• Oversampling No	
• MSO No	
Supply voltage	
Rated value (DC) 24 V	V
permissible range, lower limit (DC) 19.2	2 V
permissible range, upper limit (DC) 28.8	8 V
Reverse polarity protection Yes	3
Input current	
Current consumption, max. 45 n	mA; without load
output voltage / header	
Rated value (DC) 24 V	V
Power loss	
Power loss, typ. 1 W	1
Address area	
Address space per module	
Address space per module, max. 1 by	yte
Hardware configuration	
Automatic encoding Yes	3
Mechanical coding element Yes	3

Selection of Base Unit. for connection * wire connection * - wire	Type of mechanical coding element	Type A
- I - Wire connection - 2-wire connection - 3- wive connection - 4- wive connection - 4- wive connection - 5		Type A
**		RII tyne A0
- A-wire connection - A-wire connection - A-wire connection - A-wire connection - BU type A0 + Potential distributor module - But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential distributor module - Pesson But type A0 + Potential		
Pubmis		**
Type of digital outputs		
Type of digital output Source output (FNP, current-sourcing)		VI
Number of digital outputs 8		Source output (PNP, current-sourcing)
Ves		
Sport-circuit protection Yes; per channel, electronic		
Short-circuit protection		
A Response threshold, typ. 1 A Typ. L+ (-50 V)		Yes; per channel, electronic
Typ. L+ (-50 V)		
Switching capacity of the outputs		Typ. L+ (-50 V)
• no lamp load, max. 5 W Load resistance range • Nower limit 48 Ω • loyer limit 100 kΩ • Upper limit 100 kΩ Output current • 100 kΩ • for signal "1" read value 0.5 A • for signal "1" permissible range, max. 10 μA • Orb to signal "0" residual current, max. 10 μA Output delay with resistive load • "0" to "1", max. 100 μs; at rated load • "1" to "0", max. 100 μs; at rated load • "1" to "0", max. 100 μs; at rated load • for uprating No • for uprating of the outputs No • for uprating of the outputs No • for uprating of the outputs of a load Yes • with resistive load, max. 100 Hz • with inductive load, max. 10 Hz • with inductive load, max. 10 Hz • Current per channel, max. 4 A • Current per channel, max. 4 A • Current per channel, max. 4 A • Loyer per per hannel, max. 4 A • Up to 80 "C, max. 4 A <td></td> <td></td>		
	Switching capacity of the outputs	
Outwer limit	with resistive load, max.	0.5 A
• lower limit	on lamp load, max.	5 W
• upper limit 100 kΩ Output current • 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 • "0" to "1", max. 100 μs; at rated load • "0" to "1", max. 150 μs; at rated load • The redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 100 Hz • with inductive load, max. 10 Hz • on lamp load, max. 10 Hz • Current per channel, max. 4 A • Current per module, max. 4 A • Current per module, max. 4 A • Lourent of the outputs (per module) • horizontal installation — up to 60 "C, max. 4 A • Shielded, max. 1 000 m • shielded, max. 1 000 m • Shielded, max. 1 000 m • Diagnostic sfunction Yes • Monitoring the supply voltage Yes • Monitoring the supply voltage Yes	Load resistance range	
Output current 0 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 • "0" to "0", max. • "0" to "0", max. 150 μs; at rated load • "1" to "0", max. 150 μs; at rated load Parallel switching of two outputs • for uprating • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 2 Hz • on lamp load, max. 10 Hz Total current of the outputs 4 A • Current per channel, max. 0.5 A • Current per module, max. 4 A • Current per module, max. 4 A • Current per module, max. 4 A • up to 60 "C, max. 4 A • shielded, max. 1 000 m • shielded, max. 600 m • Interrupts/diagnostics/status information Yes Diagnostic function Yes Olayoustic should li		
		100 kΩ
• for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 150 μs; at rated load • "1" to "0", max. 150 μs; at rated load • "1" to "0", max. 150 μs; at rated load Parallel switching of two outputs • for uprating • for oredundant control of a load Yes Switching frequency • with resistive load, max. • und load, max. • on lamp load, max. • on lamp load, max. • Output per channel, max. • Current per channel, max. • Current per channel, max. • Current per module, max. • AA • Current per module, max. • Vertical installation — up to 60 °C, max. • 4 A Cable length • shelded, max. • unshielded, max. • unshielded, max. • loon m Interrupts/diagnostics/status information Diagnostics function Diagnostics alarm • Yes Olagnoses • Monitoring the supply voltage • Wire-break • Monitoring of the supply voltage (PWR-LED) • Monitoring of the supply voltage (PWR-LED) • Channel status display • Yes; green PWR LED • Channel status display • Yes; green PWR LED	·	
	-	
Output delay with resistive load • "0" to "1", max. • "1" to "0", max. • "1" to "0", max. • 150 µs; at rated load Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • Current per channel, max. • Current per channel, max. • Current per module, max. • Current per module, max. • Unstal current of the outputs • Current per module, max. • Current per module, max. • AA Total current of the outputs (per module) horizontal installation — up to 60 °C, max. • 4 A Cable length • sheided, max. • I 000 m • sheided, max. • unshielded, max. • unshielded, max. • Unshielded, max. • Diagnostics function Diagnostics function Substitute values connectable • Yes Alarms • Diagnostic alarm • Diagnostic alarm • No • Short-circuit • Konitoring the supply voltage • Wire-break • No • Short-circuit • Ronitoring of the supply voltage (PWR-LED) • Monitoring of the supply voltage (PWR-LED) • Channel status display • Yes; green LED		
• "0" to "1", max. 100 µs; at rated load • "1" to "0", max. 150 µs; at rated load Parallel switching of two outputs • for uprating No For redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 2 Hz • on lamp load, max. 10 Hz Total current of the outputs • Current per channel, max. 0.5 A • Current per module, max. 4 A Total current of the outputs (per module) horizontal installation — up to 60 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A Cable length • shielded, max. 600 m Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Yes Alarms • Diagnostics function Yes Monitoring the supply voltage Yes • More percal • Monitoring of the supply voltage (PWR-LED) • Monitoring of the supply voltage (PWR-LED) • Channel status display Yes; green PWR LED • Channel status display • Yes; green LED		10 μΑ
e "1" to "0", max. 150 µs; at rated load Parallel switching of two outputs • for uprating		
Parallel switching of two outputs • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 2 Hz • on lamp load, max. 100 Hz Total current of the outputs • Current per module, max. 4 A • Current per module, max. 4 A Total current of the outputs (Principle of Common of		
• for redundant control of a load For redundant control of load For redundant c		150 µs; at rated load
for redundant control of a load Switching frequency with resistive load, max. with inductive load, max. on lamp load, max. 10 Hz Total current of the outputs Current per channel, max. 4 A Total current of the outputs (per module) horizontal installation — up to 60 °C, max. 4 A Cable length • shielded, max. 4 A Cable length • shielded, max. 600 m Interrupts/diagnostics/status information Diagnostics function Pages Diagnoses Monitoring the supply voltage Wire-break Short-circuit Shorting for the supply voltage (PWR-LED) Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Ves; green PWR LED		Ma
Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • Current per channel, max. • Current per module, max. • Current per houtputs • Current per module, max. • A A **Total current of the outputs (per module) **horizontal installation up to 60 °C, max. • 4 A **vertical installation up to 50 °C, max. • 4 A **Cable length • shielded, max. • unshielded, max. • unshielded, max. • 1 000 m • shielded, max. • 600 m **Interrupts/diagnostics/status information **Diagnostics function **Diagnostics function Yes **Diagnostic alarm Pes **Diagnoses • Monitoring the supply voltage • Wire-break • Monitoring the supply voltage • Wire-break • Short-circuit • No • Group error • Yes **Diagnostics indication LED • Monitoring of the supply voltage (PWR-LED) • Channel status display **Yes; green PWR LED • Channel status display **Yes; green LED	-	
with inductive load, max. with inductive load, max. on lamp load, max. 10 Hz Total current of the outputs Current per channel, max. Current per module, max. Current per module, max. 4 A Total current of the outputs (per module) horizontal installation — up to 60 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A Cable length shielded, max. 1 000 m unshielded, max. 600 m Interrupts/diagnostics/status information Diagnostics function Piagnostics function Piagnostic alarm Piagnostic alarm Wes Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Ves; green PWR LED Ves; green PWR LED Ves; green LED		169
with inductive load, max. on lamp load, max. 10 Hz Total current of the outputs Current per channel, max. Current per module, max. 4 A Total current of the outputs (per module) horizontal installation — up to 60 °C, max. 4 A Cable length shielded, max. 1 000 m unshielded, max. 1 000 m unshielded, max. 1 000 m bushielded, max. 1 000 m Diagnostics function Pes Substitute values connectable Alarms Diagnostics function Piagnostics function Piagnostics function Piagnostics function No Olignostic alarm Yes Diagnostic alarm Piagnostic function Piagnostic alarm Piagnostic function Piagnostic function Piagnostic function Yes Substitute values connectable Yes Alarms Olignostic alarm Piagnostic function Piagnostic f		100 H 7
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Total current of the outputs Current per channel, max. Current per module, max. 4 A Total current of the outputs (per module) Current per module, max. 4 A Total current of the outputs (per module) Current per module, max. 4 A Total current of the outputs (per module) Current per module, max. 4 A Vertical installation up to 60 °C, max. 4 A Cable length Shielded, max. 1 000 m Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Alarms Diagnostic alarm Yes Diagnoses Monitoring the supply voltage Wire-break No Short-circuit No Group error Yes Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Channel status display	·	
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Current per module, max. Total current of the outputs (per module) horizontal installation — up to 60 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A Cable length • shielded, max. • unshielded, max. • unshielded, max. 600 m Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Yes Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit • Group error Diagnostics indication LED • Monitoring of the supply voltage (PWR-LED) • Channel status display Yes; green PWR LED Yes; green LED		0.5 A
Total current of the outputs (per module) horizontal installation — up to 60 °C, max.		
horizontal installation - up to 60 °C, max.	·	
- up to 60 °C, max. vertical installation - up to 50 °C, max. 4 A Cable length • shielded, max. • unshielded, max. • unshielded, max. 1 000 m 600 m Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Ves Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit • Short-circuit • Group error Diagnostics indication LED • Monitoring of the supply voltage (PWR-LED) • Channel status display 4 A A A 4 A 4 A 4 A 4 A 4 A 4	· · · · · · · · · · · · · · · · · · ·	
vertical installation — up to 50 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m 600 m Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Yes Alarms • Diagnostic alarm Yes Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit • Short-circuit • Group error Diagnostics indication LED • Monitoring of the supply voltage (PWR-LED) • Channel status display 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4		4 A
Cable length	·	
Cable length	— up to 50 °C, max.	4 A
 shielded, max. unshielded, max. 600 m Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Yes Alarms Diagnostic alarm Yes Diagnoses Monitoring the supply voltage Yes Wire-break Short-circuit Group error Monitoring of the supply voltage (PWR-LED) Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Yes; green LED 	·	
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Diagnostics function Substitute values connectable Alarms Diagnostic alarm Yes Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Piagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes Yes Yes Yes Yes Yes Yes Ye	• unshielded, max.	600 m
Diagnostics function Substitute values connectable Alarms Diagnostic alarm Yes Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Piagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes Yes Yes Yes Yes Yes Yes Ye	Interrupts/diagnostics/status information	
Substitute values connectable Alarms Diagnostic alarm Yes Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Piagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes Yes Yes Yes Yes Yes Yes Ye		Yes
 Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes 		Yes
Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error Ves Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes Yes Yes; green PWR LED Yes; green LED	Alarms	
 Monitoring the supply voltage Wire-break Short-circuit Group error Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes Yes Yes; green PWR LED Yes; green LED 	Diagnostic alarm	Yes
 Wire-break Short-circuit Group error Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Yes; green LED 	Diagnoses	
 Short-circuit Group error Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Yes; green LED 	 Monitoring the supply voltage 	Yes
 Group error Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Yes; green LED 	Wire-break	No
Diagnostics indication LED • Monitoring of the supply voltage (PWR-LED) • Channel status display Yes; green PWR LED Yes; green LED	Short-circuit	No
 Monitoring of the supply voltage (PWR-LED) Channel status display Yes; green PWR LED Yes; green LED 	Group error	Yes
Channel status display Yes; green LED	Diagnostics indication LED	
	 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
f l l l P e		
• for channel diagnostics No	for channel diagnostics	No

 for module diagnostics 	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
 between the channels 	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of the electronics 	No
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Suitable for safety-related tripping of standard modules	Yes; see FAQ Entry ID: 39198632
Highest safety class achievable in safety mode	
 Performance level according to ISO 13849-1 	PL d
SIL acc. to IEC 61508	SIL 2
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C; < 0 °C as of FS02
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C; < 0 °C as of FS02
vertical installation, max.	50 °C
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	30 g
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