SIEMENS

Data sheet 6ES7132-6BH01-2BA0

SIMATIC ET 200SP, Digital output module, DQ 16x 24V DC/0.5A STANDARD, Source output (PNP,P-switching) Packing unit: 10 pieces, fits to BU-type A0, Colour Code CC00, substitute value output, module diagnostics for: short-circuit to L+ and ground, wire break, supply voltage

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
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 type 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
Load resistance range	
● lower limit	48 Ω
● upper limit	12 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.	0.1 mA
Output delay with resistive load	
● "0" to "1", typ.	50 µs
● "1" to "0", typ.	100 µs
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.	0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads"
● on lamp load, max.	10 Hz
Total current of the outputs	
● Current per channel, max.	0.5 A
● Current per module, max.	8 A; see Equipment Manual "Derating curve"
Total current of the outputs (per module)	
horizontal installation	
— up to 40 °C, max.	8 A
— up to 50 °C, max.	6 A
— up to 60 °C, max.	4 A
vertical installation	
— up to 30 °C, max.	8 A
— up to 40 °C, max.	6 A
— up to 50 °C, max.	4 A
Cable length	
● shielded, max.	1 000 m
● 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	Yes; Module-wise

● Short-circuit to M	Yes; Module-wise
● Short-circuit to L+	Yes; Module-wise
● Group error	Yes
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 channels	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	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	No
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	29.3 kg
— global warming potential, (during production) [CO2 eq]	3.98 kg
— global warming potential, (during operation) [CO2 eq]	25.6 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.245 kg
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C; < 0 °C as of FS03
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C; < 0 °C as of FS03
● 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 ET 200SP system manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	30 g

Classifications

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval					Maritime application
Miscellaneous			Manufacturer Declaration		

Environment

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