

SIMATIC ET 200SP, ANALOG OUTPUT MODULE, AQ 2xU
STANDARD, PACKING UNIT: 1 PIECE, FITS TO BU-TYPE A0, A1,
COLOR CODE CC00, MODULE DIAGNOSIS, 16 BIT



General information	
Product type designation	ET 200SP, AQ 2xU Standard
Firmware version	V1.0
• FW update possible	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC00
Product function	
• I&M data	Yes; I&M0 to I&M3
• Output range scalable	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V13 SP1 / -
• STEP 7 configurable/integrated as of version	V5.5 SP3 / -
• PROFIBUS as of GSD version/GSD revision	GSD Revision 5
• PROFINET as of GSD version/GSD revision	GSDML V2.3
Operating mode	
• Oversampling	No
• MSO	No

CiR – Configuration in RUN	
Reparameterization possible in RUN	Yes
Calibration possible in RUN	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.	80 mA
Power loss	
Power loss, typ.	1 W
Address area	
Address space per module	
• Address space per module, max.	4 byte; + 1 byte for QI information
Analog outputs	
Number of analog outputs	2
Voltage output, short-circuit current, max.	45 mA
Cycle time (all channels), min.	1 ms
Analog output with oversampling	No
Output ranges, voltage	
• 0 to 10 V	Yes; 15 bit
• 1 V to 5 V	Yes; 13 bit
• -5 V to +5 V	Yes; 15 bit incl. sign
• -10 V to +10 V	Yes; 16 bit incl. sign
Connection of actuators	
• for voltage output two-wire connection	Yes
• for voltage output four-wire connection	No
Load impedance (in rated range of output)	
• with voltage outputs, min.	2 kΩ
• with voltage outputs, capacitive load, max.	1 μF
Destruction limits against externally applied voltages and currents	
• Voltages at the outputs	30 V
Cable length	
• shielded, max.	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit
Settling time	

- for resistive load
- for capacitive load

0.1 ms

1 ms

Errors/accuracies

Linearity error (relative to output range), (+/-)	0.03 %
Temperature error (relative to output range), (+/-)	0.005 %/K
Crosstalk between the outputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Voltage, relative to output range, (+/-)	0.5 %
• Current, relative to output range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to output range, (+/-)	0.3 %
• Current, relative to output range, (+/-)	0.3 %

Isochronous mode

Isochronous operation (application synchronized up to terminal)	No
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Interrupts/diagnostics/status information

Diagnostics function	Yes
Substitute values connectable	Yes

Alarms

• Diagnostic alarm	Yes
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Diagnostic messages

• Monitoring the supply voltage	Yes
• Short-circuit	Yes
• Group error	Yes
• Overflow/underflow	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 the power supply of the electronics	Yes

Isolation

Isolation tested with	707 V DC (type test)
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Ambient conditions

Ambient temperature during operation

- | | |
|---------------------------------|-------|
| • horizontal installation, min. | 0 °C |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | 0 °C |
| • vertical installation, max. | 50 °C |

Dimensions

Width	15 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	31 g
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last modified: 10/28/2016