

SIMATIC ET 200SP, Analog output module, AQ 2xU Standard, Pack quantity: 1 unit, suitable for BU type A0, A1, Color code CC00, Module diagnostics, 16 bit



General information	
Product type designation	AQ 2xU ST
HW functional status	From FS03
Firmware version	
• 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 k Ω
- with voltage outputs, capacitive load, max. 1 μ F

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	0.1 ms
• for capacitive load	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 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
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)
Ambient conditions	
Ambient temperature during operation	

- horizontal installation, min. -30 °C
- horizontal installation, max. 60 °C
- vertical installation, min. -30 °C
- vertical installation, max. 50 °C

Altitude during operation relating to sea level

- Installation altitude above sea level, max. 2 000 m; On request: Installation altitudes greater than 2 000 m

Dimensions

Width	15 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	31 g
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last modified: 05/13/2020