




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 |
| • Isochronous mode | No |
| • Output range scalable | No |
| Engineering with | |
| • STEP 7 TIA Portal configurable/integrated from version | V13 SP1 / - |
| • STEP 7 configurable/integrated from version | V5.5 SP3 / - |
| • PROFIBUS from GSD version/GSD revision | GSD Revision 5 |
| • PROFINET from 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 |
| Hardware configuration | |
| Automatic encoding | |
| • Mechanical coding element | Yes |
| • Type of mechanical coding element | Type A |

| 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 | 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 |
| Diagnoses | |
| • 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 | |
| <ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. | <ul style="list-style-type: none"> -30 °C; < 0 °C as of FS03 60 °C -30 °C; < 0 °C as of FS03 50 °C |
| Altitude during operation relating to sea level | |
| <ul style="list-style-type: none"> • 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. | 31 g |
| last modified: | 1/16/2021  |