## SIEMENS

## Data sheet

## 6ES7135-6FB00-0BA1



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	
<ul> <li>FW update possible</li> </ul>	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC00
Product function	
<ul> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul> <li>Isochronous mode</li> </ul>	No
Output range scalable	No
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 SP1 / -
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD Revision 5
<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	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	
<ul> <li>Address space per module, max.</li> </ul>	4 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	
<ul> <li>Mechanical coding element</li> </ul>	Yes
<ul> <li>Type of mechanical coding element</li> </ul>	Туре А

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	
<ul> <li>for voltage output two-wire connection</li> </ul>	Yes
<ul> <li>for voltage output four-wire connection</li> </ul>	No
Load impedance (in rated range of output)	
with voltage outputs, min.	2 kΩ
<ul> <li>with voltage outputs, capacitive load, max.</li> </ul>	1 µF
Destruction limits against externally applied voltages and cu	rrents
<ul> <li>Voltages at the outputs</li> </ul>	30 V
Cable length	
• shielded, max.	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	16 bit
Settling time	
for resistive load	0.1 ms
<ul> <li>for capacitive load</li> </ul>	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	0.05 %
output range), (+/-)	
Operational error limit in overall temperature range	
<ul> <li>Voltage, relative to output range, (+/-)</li> </ul>	0.5 %
<ul> <li>Current, relative to output range, (+/-)</li> </ul>	0.5 %
Basic error limit (operational limit at 25 °C)	
<ul> <li>Voltage, relative to output range, (+/-)</li> </ul>	0.3 %
<ul> <li>Current, relative to output range, (+/-)</li> </ul>	0.3 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
<ul> <li>Monitoring the supply voltage</li> </ul>	Yes
Short-circuit	Yes
Group error	Yes
Overflow/underflow	Yes
Diagnostics indication LED	
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	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	
<ul> <li>between the channels</li> </ul>	No
<ul> <li>between the channels and backplane bus</li> </ul>	Yes
<ul> <li>between the channels and the power supply of the electronics</li> </ul>	Yes
electronics	
Isolation	

Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; < 0 °C as of FS03
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; < 0 °C as of FS03
<ul> <li>vertical installation, max.</li> </ul>	50 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	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
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