## 6ES7135-6GB00-0BA1

**Data sheet** 



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

Product type designation	General information	
Firmware version  FW update possible  usable BaseUnits  Color code for module-specific color identification plate  Product function  I&M data  Sechronous mode  Output range scalable  No  Engineering with  STEP 7 TIA Portal configurable/integrated from version  FROFIBUS from GSD version/GSD revision  PROFIBUS from GSD version/GSD revision  PROFINET from GSD version/GSD revision  Robert GSD No  CIR - Configuration in RUN  Reparameterization possible in RUN  Reparameterization possible in RUN  Rated value (DC)  permissible range, upper limit (DC)  permissible range, upper limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Input current  Current consumption, max.  Power loss  Power loss  Power loss  Power loss  Power module	Product type designation	AQ 2xl ST
• FW update possible  usable BaseUnits  Color code for module-specific color identification plate  Product function  • 18M data  • Isochronous mode  • Output range scalable  Engineering with  • STEP 7 TIA Portal configurable/integrated from version  • STEP 7 configurable/integrated from version  • PROFIBUS from GSD version/GSD revision  • PROFINET from GSD version/GSD revision  • MSO  Oversampling  • MSO  CiR-configuration in RUN  Reparameterization possible in RUN  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, lower limit (DC)  permissible range, lower limit (DC)  Reverse polarity protection  power loss  Power loss  Power loss, typ.  Address space per module	HW functional status	From FS03
usable BaseUnits  Color code for module-specific color identification plate  Product function  IskM data Iscorronous mode Output range scalable No  STEP 7 TIA Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Oversampling MSO No  CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Supply voltage Rated value (DC) permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Current consumption, max.  110 mA  Power loss PVes; I&M0 to I&M3 PVes IAM3 PVes IAM4 PVes IAM	Firmware version	
Color code for module-specific color identification plate  Product function  • I&M data  • Isochronous mode  • Output range scalable  No  Engineering with  • STEP 7 TIA Portal configurable/integrated from version  • STEP 7 configurable/integrated from version  • STEP 7 configurable/integrated from version  • PROFIBUS from GSD version/GSD revision  • PROFIBUS from GSD version/GSD revision  • Oversampling  • Oversampling  • No  • MSO  CIR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Input current  Current consumption, max.  110 mA  Power loss  Power loss  Power loss, typ.  Address area  Address space per module	FW update possible	Yes
Product function  I &M data I sochronous mode Output range scalable  Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Tonfigurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision No Operating mode Oversampling MSO No CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Ves Input current Current consumption, max. Power loss Power loss Power loss, typ. Address area Address space per module	usable BaseUnits	BU type A0, A1
Isochronous mode Isochronous mode Output range scalable No  Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Tour Agricult from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision No PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision No CIR - Configuration in RUN Reparameterization possible in RUN Ves Calibration possible in RUN No Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC	Color code for module-specific color identification plate	CC00
Isochronous mode Output range scalable No  Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Operating mode Oversampling No MSO No  CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Ves Input current Current consumption, max. Power loss Power loss, typ. Address area Address space per module	Product function	
Output range scalable  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 Configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision SDML V2.3  Operating mode Oversampling No MSO No  CIR - Configuration in RUN  Reparameterization possible in RUN Calibration possible in RUN  Supply voltage  Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permit current Current consumption, max.  Power loss Power loss, typ.  Address space per module	● I&M data	Yes; I&M0 to I&M3
Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision SDML V2.3  Operating mode Oversampling No MSO No  CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No  Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permits upper lim	<ul> <li>Isochronous mode</li> </ul>	No
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision SDML V2.3  Operating mode Oversampling No MSO No  CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No  Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Pves Input current Current consumption, max.  110 mA  Power loss Power loss, typ.  Address area Address space per module	Output range scalable	No
version  • STEP 7 configurable/integrated from version  • PROFIBUS from GSD version/GSD revision  • PROFINET from GSD version/GSD revision  • PROFINET from GSD version/GSD revision  GSDML V2.3  Operating mode  • Oversampling  • MSO  No  CIR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  ryes  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address space per module	Engineering with	
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision  PROFINET from GSD version/GSD revision  GSDML V2.3  Operating mode  Oversampling No MSO No  CIR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  Supply voltage  Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes  Input current  Current consumption, max.  110 mA  Power loss Power loss, typ.  Address space per module		V13 SP1 / -
PROFINET from GSD version/GSD revision  Operating mode  Oversampling  MSO  MSO  CIR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  No  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Tyes  Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  Address area  Address space per module	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
Operating mode  Oversampling  MSO  No  CiR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  No  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  Address area  Address space per module	<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD Revision 5
Oversampling  MSO  MSO  No  CiR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  No  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  Address area  Address space per module	<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
MSO  CiR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  No  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  Address area  Address space per module	Operating mode	
CiR - Configuration in RUN  Reparameterization possible in RUN  Calibration possible in RUN  No  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	<ul> <li>Oversampling</li> </ul>	No
Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 110 mA Power loss Power loss, typ. 1.5 W Address area Address space per module	• MSO	No
Calibration possible in RUN  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	CiR - Configuration in RUN	
Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	<u> </u>	Yes
Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	Calibration possible in RUN	No
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 110 mA  Power loss Power loss, typ. 1.5 W  Address area Address space per module	Supply voltage	
permissible range, upper limit (DC)  Reverse polarity protection  Yes  Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  1.5 W  Address area  Address space per module	Rated value (DC)	24 V
Reverse polarity protection  Input current  Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	permissible range, lower limit (DC)	19.2 V
Input current  Current consumption, max.  110 mA  Power loss  Power loss, typ.  1.5 W  Address area  Address space per module	permissible range, upper limit (DC)	28.8 V
Current consumption, max.  Power loss  Power loss, typ.  Address area  Address space per module	Reverse polarity protection	Yes
Power loss Power loss, typ. 1.5 W  Address area  Address space per module	Input current	
Power loss, typ. 1.5 W  Address area  Address space per module	Current consumption, max.	110 mA
Address area Address space per module	Power loss	
Address space per module	Power loss, typ.	1.5 W
	Address area	
Address space per module, max.     4 byte; + 1 byte for QI information	Address space per module	
	Address space per module, max.	4 byte; + 1 byte for QI information
Hardware configuration	Hardware configuration	
Automatic encoding	Automatic encoding	
Mechanical coding element     Yes	<ul> <li>Mechanical coding element</li> </ul>	Yes
• Type of mechanical coding element  Type A	<ul> <li>Type of mechanical coding element</li> </ul>	Type A

Analog outputs	
Number of analog outputs	2
Cycle time (all channels), min.	1 ms
Analog output with oversampling	No
Output ranges, current	
• 0 to 20 mA	Yes; 15 bit
• -20 mA to +20 mA	Yes; 16 bit incl. sign
• 4 mA to 20 mA	Yes; 14 bit
Connection of actuators	100, 14 bit
for current output two-wire connection	Yes
Load impedance (in rated range of output)	
with current outputs, max.	500 Ω
with current outputs, max.      with current outputs, inductive load, max.	1 mH
Destruction limits against externally applied voltages and cur	
Voltages at the outputs	30 V
Cable length	00 V
shielded, max.	1 000 m
,	1 000 111
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	16 hit
Resolution with overrange (bit including sign), max.  Setting times.	16 bit
Settling time	0.4 may Typical colum
• for resistive load	0.1 ms; Typical value
for inductive load	0.5 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	
<ul> <li>Voltage, relative to output range, (+/-)</li> </ul>	0.5 %
Current, relative to output range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
<ul> <li>Voltage, relative to output range, (+/-)</li> </ul>	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	
<ul> <li>Monitoring the supply voltage</li> </ul>	Yes
Wire-break	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	
between the channels	No
between the channels and backplane bus	Yes
between the channels and the power supply of the	Yes
electronics	133
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

last modified: 2/1/2021 🖸