## 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

Product type designation     AQ 2xU ST       HW functional status     From FS03       Firmware version     From FS03       • FW update possible     Yes       usable BaseUnits     BU type A0, A1       Color code for module-specific color identification plate     CC00       Product function     Color code for module-specific color identification plate       • I&M data     Yes; I&M0 to I&M3       • lsochronous mode     No       • Output range scalable     No       • 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       • PROFIBUS from GSD version/GSD revision     GSD Revision 5       • Oversampling     No       • MSO     No       Calibration possible in RUN     Yes       Reparameterization possible in RUN     Yes       Supply voltage     Z4 V       permissible range, lower limit (DC)     24 V       permissible range, upper limit (DC)     28.8 V       Reverse polarity protection     Yes       Input current     Current consumption, max.       Roverse polarity protection     Yes       Reverse polarity protection     Yes       Reverse polarity protection     Yes	General information	
Firmware version     Yes       • FW update possible     Yes       usable BaseUnits     BU type A0, A1       Color code for module-specific color identification plate     CC00       Product function     CC00       • I&M data     Yes; I&M0 to I&M3       • Isochronous mode     No       • Sochronous mode     No       • StEP 7 TIA Portal configurable/integrated from version     V13 SP1 / -       • STEP 7 to Configurable/integrated from version     V5.5 SP3 / -       • PROFIBUS from GSD version/GSD revision     GSD Revision 5       • PROFIBUS from GSD version/GSD revision     GSDML V2.3       Operating mode     No       • NSO     No       Clar configuration in RUN     Yes       Reparameterization possible in RUN     Yes       Supply voltage     Z4 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.       Power loss, typ.     1 W	Product type designation	AQ 2xU ST
• FW update possible         Yes           usable BaseUnits         BU type A0, A1           Color code for module-specific color identification plate         CC00           Product function         CC00           Product function         CC00           • I&M data         Yes; I&M0 to I&M3           • Isochronous mode         No           • Output range scalable         No           • STEP 7 TIA Portal configurable/integrated from version         V13 SP1 / -           • STEP 7 configurable/integrated from version         V5.5 SP3 / -           • STEP 7 configurable/integrated from version         GSD Revision 5           • PROFIBUS from GSD version/GSD revision         GSDML V2.3           Operating mode         -           • Oversampling         No           • MSO         No           Calibration possible in RUN         Yes           Calibration possible in RUN         Yes           Calibration possible range, upper limit (DC)         19.2 V           permissible range, lower limit (DC)         24.8 V           permissible range, upper limit (DC)         24.8 V           perverse polarity protection         Yes           Input current         Current consumption, max.           Power loss, typ.         1 W </td <td>HW functional status</td> <td>From FS03</td>	HW functional status	From FS03
usable BaseUnits         BU type A0, A1           Color code for module-specific color identification plate         CC00           Product function         CC00           I &M data         Yes; I&M0 to I&M3           I sochronous mode         No           Output range scalable         No           StEP 7 TIA Portal configurable/integrated from version         V5.5 SP3 /-           • STEP 7 configurable/integrated from version         V5.5 SP3 /-           • STEP 7 configurable/integrated from version         V5.5 SP3 /-           • PROFIBUS from GSD version/GSD revision         GSD Revision 5           • PROFIBUS from GSD version/GSD revision         GSDML V2.3           Operating mode         -           • Oversampling         No           • MSO         No           Calibration possible in RUN         Yes           Calibration possible in RUN         Yes           Calibration possible in RUN         Yes           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, typ.         1 W	Firmware version	
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         • 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 CSD version/GSD revision       GSDML V2.3         Operating mode       -         • Oversampling       No         • MSO       No         Calibration possible in RUN       Yes         Calibration possible in RUN       Yes         Supply voltage       -         Reted 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       1 W	FW update possible	Yes
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         • PROFIBUS from GSD version/GSD revision       GSDRevision 5         • PROFIBUS from GSD version/GSD revision       GSDRevision 5         • Oversampling       No         • MSO       No         CiR - Configuration in RUN       Yes         Calibration possible in RUN       Yes         Calibration possible in RUN       No         Supply voltage       24 V         permissible range, lower limit (DC)       28.8 V         Reverse polarity protection       Yes         Current       80 mA         Power loss       40 mA         Power loss, typ.       1 W	usable BaseUnits	BU type A0, A1
• I&M dataYes; I&M0 to I&M3• Isochronous modeNo• Output range scalableNoEngineering with• STEP 7 TIA Portal configurable/integrated from versionV13 SP1 / -• STEP 7 configurable/integrated from versionV5.5 SP3 / -• PROFIBUS from GSD version/GSD revisionGSD Revision 5• PROFINET from GSD version/GSD revisionGSDML V2.3Operating mode• Oversampling • MSONo• Step 7NoCalibration possible in RUNYesSupply voltageRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentCurrent consumption, max.80 mAPower loss, typ.1 W	Color code for module-specific color identification plate	CC00
• Isochronous modeNo• Output range scalableNoEngineering with• STEP 7 TIA Portal configurable/integrated from versionV13 SP1 / -• STEP 7 configurable/integrated from versionV5.5 SP3 / -• PROFIBUS from GSD version/GSD revisionGSD Revision 5• PROFIBUS from GSD version/GSD revisionGSDML V2.3Operating mode• Oversampling • MSONo• MSONoCalibration possible in RUN supply voltageYesReparameterization possible in RUN permissible range, lower limit (DC)YesRated value (DC) permissible range, upper limit (DC)19.2 Vpermissible range, upper limit (DC)YesInput currentYesCurrent consumption, max.80 mAPower loss, typ.1 W	Product function	
• Output range scalable       No         Engineering with	• 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         • STEP 7 configurable/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         • Oversampling         • Oversampling         • MSO         Calibration possible in RUN         Reparameterization possible in RUN         Supply voltage         Rated value (DC)         permissible range, lower limit (DC)         permissible range, lower limit (DC)         permissible range, upper limit (DC)         Reverse polarity protection         Yes         Input current         Current consumption, max.         80 mA         Power loss         Power loss, typ.	<ul> <li>Isochronous mode</li> </ul>	No
• STEP 7 TIA Portal configurable/integrated from versionV13 SP1 / -• STEP 7 configurable/integrated from versionV5.5 SP3 / -• PROFIBUS from GSD version/GSD revisionGSD Revision 5• PROFINET from GSD version/GSD revisionGSDML V2.3Operating modeNo• OversamplingNo• MSONoCiller Configuration in RUNYesCalibration possible in RUNYesCalibration possible in RUNNoSupply voltage24 VPermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput current80 mAPower loss, typ.1 W	Output range scalable	No
version• STEP 7 configurable/integrated from versionV5.5 SP3 / -• PROFIBUS from GSD version/GSD revisionGSD Revision 5• PROFINET from GSD version/GSD revisionGSDML V2.3Operating mode• OversamplingNo• MSONoCiR - Configuration in RUNYesCalibration possible in RUNYesCalibration possible in RUNNoSupply voltage24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput current80 mAPower loss1 W		
PROFIBUS from GSD version/GSD revision     GSD Revision 5     PROFINET from GSD version/GSD revision     GSDML V2.3  Operating mode     Oversampling     No     No     NSO     NSO     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, typ. 1 W		V13 SP1 / -
• PROFINET from GSD version/GSD revisionGSDML V2.3Operating modeNo• OversamplingNo• MSONoCiR - Configuration in RUNYesReparameterization possible in RUNYesCalibration possible in RUNNoSupply voltage24 VRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentVesCurrent consumption, max.80 mAPower loss, typ.1 W	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
Operating mode• OversamplingNo• MSONoCiR - Configuration in RUNYesReparameterization possible in RUNYesCalibration possible in RUNNoSupply voltageXesRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentCurrent consumption, max.Power loss1 W	<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD Revision 5
• Oversampling • MSONoNoNoCiR - Configuration in RUNYesReparameterization possible in RUNYesCalibration possible in RUNNoSupply voltageXRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentXCurrent consumption, max.80 mAPower loss1 W	<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
• MSONoCiR - Configuration in RUNReparameterization possible in RUNYesCalibration possible in RUNNoSupply voltageRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentSo mACurrent consumption, max.80 mAPower loss, typ.1 W	Operating mode	
CiR - Configuration in RUN       Yes         Reparameterization possible in RUN       Yes         Calibration possible in RUN       No         Supply voltage       Xes         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       Yes         Current consumption, max.       80 mA         Power loss, typ.       1 W	Oversampling	No
Reparameterization possible in RUNYesCalibration possible in RUNNoSupply voltageImage: Constraint of the second	• MSO	No
Calibration possible in RUNNoSupply voltageRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentCurrent consumption, max.80 mAPower lossPower loss, typ.1 W	CiR - Configuration in RUN	
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	Reparameterization possible in RUN	Yes
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.         Power loss       80 mA         Power loss, typ.       1 W	Calibration possible in RUN	No
permissible range, lower limit (DC)       19.2 V         permissible range, upper limit (DC)       28.8 V         Reverse polarity protection       Yes         Input current       V         Current consumption, max.       80 mA         Power loss       1 W	Supply voltage	
permissible range, upper limit (DC)       28.8 V         Reverse polarity protection       Yes         Input current       Current consumption, max.         Power loss       80 mA         Power loss, typ.       1 W	Rated value (DC)	24 V
Reverse polarity protection     Yes       Input current     Current consumption, max.       Reverse polarity protection     80 mA       Power loss     1 W	permissible range, lower limit (DC)	19.2 V
Input current     Current consumption, max.     80 mA       Power loss     Power loss, typ.     1 W	permissible range, upper limit (DC)	28.8 V
Current consumption, max.     80 mA       Power loss     1 W	Reverse polarity protection	Yes
Power loss       Power loss, typ.       1 W	Input current	
Power loss, typ. 1 W	Current consumption, max.	80 mA
	Power loss	
Address area	Power loss, typ.	1 W
	Address area	
Address space per module	Address space per module	
Address space per module, max.     4 byte; + 1 byte for QI information	· · ·	4 byte; + 1 byte for QI information
Hardware configuration		
Automatic encoding		

- Machanical adding alamant	Vac
Mechanical coding element	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
with voltage outputs, capacitive load, max.	1 µF
Destruction limits against externally applied voltages and cur	
Voltages at the outputs	30 V
Cable length	
<ul> <li>shielded, max.</li> </ul>	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	
<ul> <li>for resistive load</li> </ul>	0.1 ms
<ul> <li>for capacitive load</li> </ul>	1 ms
Errors/accuracies	
Linearity error (relative to output range), (+/-)	0.03 %
Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-)	0.03 % 0.005 %/K
Temperature error (relative to output range), (+/-)	0.005 %/K
Temperature error (relative to output range), (+/-)Crosstalk between the outputs, min.Repeat accuracy in steady state at 25 °C (relative to	0.005 %/K -50 dB
Temperature error (relative to output range), (+/-) Crosstalk between the outputs, min. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.005 %/K -50 dB
Temperature error (relative to output range), (+/-)Crosstalk between the outputs, min.Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)Operational error limit in overall temperature range	0.005 %/K -50 dB 0.05 %
Temperature error (relative to output range), (+/-)Crosstalk between the outputs, min.Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)Operational error limit in overall temperature range 	0.005 %/K -50 dB 0.05 % 0.5 %
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)	0.005 %/K -50 dB 0.05 % 0.5 %
Temperature error (relative to output range), (+/-)Crosstalk between the outputs, min.Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)Operational error limit in overall temperature range• Voltage, relative to output range, (+/-)• Current, relative to output range, (+/-)Basic error limit (operational limit at 25 °C)	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 %
Temperature error (relative to output range), (+/-)Crosstalk between the outputs, min.Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)Operational error limit in overall temperature range• Voltage, relative to output range, (+/-)• Current, relative to output range, (+/-)Basic error limit (operational limit at 25 °C)• Voltage, relative to output range, (+/-)	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 %
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 %
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Interrupts/diagnostics/status information	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 %
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics/status information         Diagnostics function	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics/status information         Diagnostics function         Substitute values connectable	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics/status information         Diagnostics function         Substitute values connectable         Alarms	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics/status information         Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics/status information         Diagnostic alarm         • Diagnoses	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)         • Channel status display	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Basic error limit (operational limit at 25 °C)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)         • Channel status display         • for channel diagnostics	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)         • Channel status display         • for channel diagnostics         • for module diagnostics	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)         • Channel status display         • for channel diagnostics         • for module diagnostics         • for module diagnos	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes
Temperature error (relative to output range), (+/-)         Crosstalk between the outputs, min.         Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)         Operational error limit in overall temperature range         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Voltage, relative to output range, (+/-)         • Current, relative to output range, (+/-)         • Diagnostics function         Substitute values connectable         Alarms         • Diagnostic alarm         Diagnoses         • Monitoring the supply voltage         • Short-circuit         • Group error         • Overflow/underflow         Diagnostics indication LED         • Monitoring of the supply voltage (PWR-LED)         • Channel status display         • for channel diagnostics         • for module diagnostics	0.005 %/K -50 dB 0.05 % 0.5 % 0.5 % 0.3 % 0.3 % Yes Yes Yes Yes Yes Yes Yes Yes

## • between the channels and backplane bus

• between the channels and the power supply of the electronics

Isolation tested with 707 V DC (type test) Ambient conditions Ambient temperature during operation • horizontal installation, min. -30 °C; < 0 °C as of FS03 • horizontal installation, max. 60 °C • vertical installation, min. -30 °C; < 0 °C as of FS03 • vertical installation, max. 50 °C Altitude during operation relating to sea level • 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 58 mm Depth Weights 31 g Weight, approx.

Yes

Yes

last modified:

1/16/2021 🖸