Data sheet

6ES7532-5HF00-0AB0

Siemens EcoTech



SIMATIC S7-1500, analog output module AQ8xU/I HS, 16-bit resolution accuracy 0.3%, 8 channels in groups of 8, diagnostics; substitute value 8 channels in 0.125 ms oversampling; the module supports the safety-oriented shutdown of load groups up to SIL2 according to EN IEC 62061:2021 and Category 3 / PL d according to EN ISO 13849-1:2015. delivery including infeed element, shielding bracket and shield terminal: front connector (screw terminals or push-in) to be ordered separately

Figure similar

General Information Product type designation HV functional status From FS01 Firmware version FW update possible Yes Product function I i i i i i i i i i i i i i i i i i i		
HW functional status	General information	
Firmware version FW update possible Product function FIW update possible Product function FIW data Fixed data Fixed version Fixed ver	Product type designation	AQ 8xU/I HS
Product function I&M data	HW functional status	From FS01
Product function IAM data Isochronous mode Prioritized startup Output range scalable No Engineering with 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 Press Poor flag version/GSD revision Press Possible in RUN Press Press Press Press Press Press Press Press Press Prover tonsumption, max. Press Power loss Prover loss Prover loss Press Power for analog outputs Number of analog outputs Press	Firmware version	V2.1.0
I I&M data I I&M data I Isochronous mode Prioritized startup Output range scalable Engineering with I STEP 7 TIA Portal configurable/integrated from version I STEP 7 Ton Gigurable/integrated from version I STEP 7 Configurable/integrated from version I STEP 7 CONFIGURABLE (Integrated From Version) I STEP 7 CONFIGURABLE (Integrated From Version) I STEP 7 CONFIGURABLE (Integrated From Version) I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable/integrated from version I V14 /- I STEP 7 TIA Portal Configurable Integrated from version I V14 /- I STEP 7 TIA Portal Configurable Integrated from version I V14 /- I STEP 7 TIA Portal Configurable Integrated from version I V14 /- I STEP 7 TIA Portal Configurable Integrated	FW update possible	Yes
● Isochronous mode Prioritized startup No 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 PROFIBUS from GSD version/GSD revision PROFIBUT from GSD version/GSD revision PROFIBUT from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFIBUT from GSD version/GSD	Product function	
Prioritized startup Output range scalable Regimeering with ● STEP 7 TIA Portal configurable/integrated from version ● STEP 7 tonfigurable/integrated from version ● STEP 7 tonfigurable/integrated from version ● STEP 7 tonfigurable/integrated from version ● PROFIBUS from GSD version/GSD revision ● PROFIBUS from GSD version/GSD revision ● PROFINET from GSD version/GSD revision ● Oversampling ● MSO ● Ves ● Oversampling ● MSO ■ Yes CiR - Configuration in RUN Reparameterization possible in RUN ■ Yes Calibration possible in RUN ■ Yes 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 Current consumption, max. ■ 320 mA; with 19.2 V supply Power Power available from the backplane bus ■ 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs Number of analog outputs Pes	I&M data	Yes; I&M0 to I&M3
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 PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Profit from GSD version/GSD r	 Isochronous mode 	Yes
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TOA rigurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Press SUBJECT OF TOR STEP STEP STEP STEP STEP STEP STEP STEP	 Prioritized startup 	No
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 PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3 /- Operating mode Oversampling MSO Yes MSO Ves CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Yes Input current Current consumption, max. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs Number of analog outputs Number of analog outputs V5.5 SP3 /- V1.4 /- V5.5 SP3 /- V1.6 V.5.1 Ves. V1.0 / V5.1 Vis.1 Ves. V1.0 / V5.1 Vis.1 Ves. V1.0 / V5.1 Vis.1 Ves. V1.0 / V5.1 Vis.1 Vis.1 Ves. V1.0 / V5.1 Vis.1 Vis.1 Ves. V1.0 / V5.1 Vis.1 Vis.1 Vis.1 Ves. V1.0 / V5.1 V1	Output range scalable	No
STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision V1.0 / V5.1 PROFINET from GSD version/GSD revision V2.3 / - Operating mode Oversampling MSO Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes 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 Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs V1.0 / V5.1 V1.0 / V5.	Engineering with	
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3 /- Operating mode Oversampling MSO Yes MSO Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes 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) Permissible range, was a supply voltage Rated value (DC) Permissible range, upper limit (DC) Permissible range, upper limi	 STEP 7 TIA Portal configurable/integrated from version 	V14 / -
PROFINET from GSD version/GSD revision Operating mode Oversampling MSO Yes MSO Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes 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. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs Number of analog outputs Ves Ves Ves Ves Ves Ves	 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
Operating mode Oversampling Ves MSO Yes CiR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes 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) Permissible range, were limit (DC) Permissible range, upper limit (DC	 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
Oversampling MSO Yes CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Yes 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. Current consumption, max. Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes Ves Ves Augustation Pyes Yes Augustation Pyes Yes Ves Ves Ves Ves Ves Ves V	 PROFINET from GSD version/GSD revision 	V2.3 / -
NSO Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes 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. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs Ves	Operating mode	
CiR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 320 mA; with 19.2 V supply Power Power varialable from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes	 Oversampling 	Yes
Reparameterization possible in RUN Calibration possible in RUN Yes Supply voitage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Ves Ves 8 Voltage output, short-circuit protection Yes	• MSO	Yes
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. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. Analog outputs Number of analog outputs Ves Ves	CiR - Configuration in RUN	
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. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss, typ. 7 W Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	Reparameterization possible in RUN	Yes
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 230 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss, typ. Analog outputs Number of analog outputs Ves Yes	Calibration possible in RUN	Yes
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs Ves Ves Voltage output, short-circuit protection 19.2 V 28.8 V 28.8 V 7 W Analog outputs 8 Voltage output, short-circuit protection Yes	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	Rated value (DC)	24 V
Reverse polarity protection Input current Current consumption, max. Power Power available from the backplane bus Power loss Power loss, typ. Analog outputs Number of analog outputs Ves Yes Yes Yes Yes Yes	permissible range, lower limit (DC)	19.2 V
Input current Current consumption, max. 320 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	permissible range, upper limit (DC)	28.8 V
Current consumption, max. 230 mA; with 19.2 V supply Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	Reverse polarity protection	Yes
Power available from the backplane bus Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	Input current	
Power available from the backplane bus 1.15 W Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes	Current consumption, max.	320 mA; with 19.2 V supply
Power loss Power loss, typ. 7 W Analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes	Power	
Power loss, typ. 7 W Analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes	Power available from the backplane bus	1.15 W
Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes	Power loss	
Number of analog outputs 8 Voltage output, short-circuit protection Yes	Power loss, typ.	7 W
Number of analog outputs 8 Voltage output, short-circuit protection Yes	Analog outputs	
Voltage output, short-circuit protection Yes		8
		Yes
		45 mA

Current output, no-load voltage, max.	20 V
Cycle time (all channels), min.	125 µs; independent of number of activated channels
Output ranges, voltage	
• 0 to 10 V	Yes
• 1 V to 5 V	Yes
• -5 V to +5 V	No
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
for voltage output two-wire connection	Yes
for voltage output four-wire connection	Yes
for current output two-wire connection	Yes
Load impedance (in rated range of output)	
with voltage outputs, min.	1 kΩ
with voltage outputs, rain. with voltage outputs, capacitive load, max.	100 nF
with voltage outputs, expanditive load, max. with current outputs, max.	500 Ω
with current outputs, inductive load, max.	1 mH
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
Conversion time (per channel)	50 µs; independent of number of activated channels
Settling time	30 μs, independent of number of activated charmers
• for resistive load	30 us; see additional description in the manual
for capacitive load	30 μs; see additional description in the manual 100 μs; see additional description in the manual
for inductive load	100 μs; see additional description in the manual
	100 μs, see additional description in the mandal
Errors/accuracies	0.00.0/
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.15 %
Temperature error (relative to output range), (+/-)	0.002 %/K
Crosstalk between the outputs, max.	-100 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
note regarding accuracy	at temperatures below 0 °C, the figures for operating error and temperature error are doubled
Operational error limit in overall temperature range	
Voltage, relative to output range, (+/-)	0.3 %
Current, relative to output range, (+/-)	0.3 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to output range, (+/-)	0.2 %
Current, relative to output range, (+/-)	0.2 %
Isochronous mode	
Execution and activation time (TCO), min.	100 μs
Bus cycle time (TDP), min.	250 μs
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	100
Diagnostic alarm	Yes
	100
Diagnoses • Monitoring the supply voltage	Vec
Monitoring the supply voltage Wire brook	Yes
Wire-break Short circuit	Yes; Only for output type "current"
Short-circuit	Yes; Only for output type "voltage"
Overflow/underflow	Yes
Diagnostics indication LED	
RUN LED	Yes; green LED

• ERROR LED	Vec. red LED
	Yes; red LED
Monitoring of the supply voltage (PWR-LED)	Yes; green LED
Channel status display	Yes; green LED
• for channel diagnostics	Yes; red LED
for module diagnostics	Yes; red LED
Potential separation	
Potential separation channels	
 between the channels 	No
 between the channels, in groups of 	8
 between the channels and backplane bus 	Yes
Between the channels and load voltage L+	Yes
Permissible potential difference	
between S- and MANA (UCM)	8 V DC
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes; from FS04
Ecological footprint	
environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	37.6 kg
— global warming potential, (during production) [CO2	11.1 kg
eq]	Titing
— global warming potential, (during operation) [CO2 eq]	26.8 kg
— global warming potential, (after end of life cycle)[CO2 eq]	-0.364 kg
Highest safety class achievable for safety-related tripping of stand	ard modules
 Performance level according to ISO 13849-1 	PL d
 Category according to ISO 13849-1 	Cat. 3
• SIL acc. to IEC 62061	SIL 2
 remark on safety-oriented shutdown 	https://support.industry.siemens.com/cs/de/en/view/39198632
product functions / security / header	
signed firmware update	No
data integrity	No
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	-30 °C; From FS03
horizontal installation, max.	60 °C
vertical installation, min.	-30 °C; From FS03
vertical installation, min. vertical installation, max.	40 °C
	40 0
Altitude during operation relating to sea level	F 000 ms. Destrictions for installation altitudes > 2,000 ms. and manual
Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	325 g
Weights	

last modified: 10/9/2024 🖸