SIEMENS

Data sheet

6ES7532-5HF00-0AB0



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

Product type designation	riguresiiiila		
HW functional status	General information		
Firmware version	Product type designation	AQ 8xU/I HS	
FW update possible Product function I & M data Secontronous mode Secontronous mode Prioritized startup Output range scalable No Engineering with STEP 7 To Portal configurable/integrated from version STEP 7 Toorfigurable/integrated from version STEP 7 Toorfigurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3/- Pes CIR-Configuration in RUN Pes Calibration possible in RUN Yes Calibration possible in RUN Yes Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) PROFINET from GSD version/GSD revision Version possible in RUN Prover ossupper limit (DC) Prover loss. Power available from the backplane bus Power available from the backplane bus Power loss, typ. Analog outputs Number of analog outputs 8 Voltage output, short-circuit current, max. 45 mA Current custu, no-load voltage, max. 20 V Cycle time (all channels), min. 125 µs; independent of number of activated channels	HW functional status	From FS01	
Product function • I&M data • Isochronous mode • Prioritized startup • Output range scalable Engineering with • STEP 7 TIAP Portal configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PVS • Ves	Firmware version	V2.1.0	
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NSO 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 Yes Input current Current consumption, max. 230 mA; with 19.2 V supply Power Power loss Power loss Power loss, typ. Analog outputs Number of analog outputs Voltage output, short-circuit protection Yes Voltage output, short-circuit current, max. Current cutput, no-load voltage, max. Curcel (all channels), min. 125 µs; independent of number of activated channels	Operating mode		
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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 Power loss, typ. 7 W Analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes Voltage output, short-circuit current, max. 45 mA Current output, no-load voltage, max. 20 V Cycle time (all channels), min. 125 µs; independent of number of activated channels	Reparameterization possible in RUN	Yes	
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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 Voltage output, short-circuit protection Voltage output, short-circuit current, max. Current output, no-load voltage, max. Cycle time (all channels), min. Yes 320 mA; with 19.2 V supply 7 W 8 1.15 W 7 W 4.15 W 7 W 4.16 M 4.17 M 4.17 M 4.18 M 4.19 M 4	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 Voltage output, short-circuit current, max. 45 mA Current output, no-load voltage, max. Cycle time (all channels), min. 20 V Cycle time (all channels), min.	permissible range, upper limit (DC)	28.8 V	
Current consumption, max. 320 mA; with 19.2 V supply	Reverse polarity protection	Yes	
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 Voltage output, short-circuit current, max. Voltage output, short-circuit current, max. 20 V Cycle time (all channels), min. 125 µs; independent of number of activated channels	Input current		
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Power loss, typ. 7 W Analog outputs Number of analog outputs 8 Voltage output, short-circuit protection Yes Voltage output, short-circuit current, max. 45 mA Current output, no-load voltage, max. 20 V Cycle time (all channels), min. 125 µs; independent of number of activated channels	Power available from the backplane bus	1.15 W	
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Number of analog outputs Voltage output, short-circuit protection Yes Voltage output, short-circuit current, max. 45 mA Current output, no-load voltage, max. Cycle time (all channels), min. 20 V Cycle time (all channels) min.	Power loss, typ.	7 W	
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Voltage output, short-circuit current, max. 45 mA Current output, no-load voltage, max. Cycle time (all channels), min. 20 V 125 µs; independent of number of activated channels	Number of analog outputs	8	
Voltage output, short-circuit current, max.45 mACurrent output, no-load voltage, max.20 VCycle time (all channels), min.125 μs; independent of number of activated channels	Voltage output, short-circuit protection	Yes	
Cycle time (all channels), min. 125 µs; independent of number of activated channels		45 mA	
	Current output, no-load voltage, max.	20 V	
Output ranges, voltage	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, capacitive load, max.	100 nF
with voltage datputs, capability load, max. with current outputs, max.	500 Ω
•	1 mH
with current outputs, inductive load, max. Cable length	I IIIN
Cable length	200 m
• shielded, max.	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	10.17
Resolution with overrange (bit including sign), max.	16 bit
Conversion time (per channel)	50 μs; independent of number of activated channels
Settling time	
for resistive load	30 μs; see additional description in the manual
 for capacitive load 	100 μs; see additional description in the manual
for inductive load	100 μs; see additional description in the manual
Errors/accuracies	
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	0.05 %
range), (+/-)	
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	p-
Diagnostics function	Yes
Substitute values connectable	Yes
	1 00
Alarms • Diagnostic clarm	Voc
Diagnostic alarm Diagnoses	Yes
Diagnoses	Voc
 Monitoring the supply voltage 	Yes
	Y GET LIGHT FOR OUTDUIT TYPE "CURRENT"
Wire-break	Yes; Only for output type "current"
Wire-breakShort-circuit	Yes; Only for output type "voltage"
Wire-breakShort-circuitOverflow/underflow	
Wire-break Short-circuit	Yes; Only for output type "voltage" Yes
Wire-breakShort-circuitOverflow/underflow	Yes; Only for output type "voltage"
Wire-break Short-circuit Overflow/underflow Diagnostics indication LED	Yes; Only for output type "voltage" Yes
Wire-break Short-circuit Overflow/underflow Diagnostics indication LED RUN LED	Yes; Only for output type "voltage" Yes Yes; green LED
Wire-break Short-circuit Overflow/underflow Diagnostics indication LED RUN LED ERROR LED	Yes; Only for output type "voltage" Yes Yes; green LED Yes; red LED

for channel diagnostics	Yes; red LED
for module diagnostics	Yes: red LED
Potential separation	100,100 LLD
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
Highest safety class achievable for safety-related tripping of standard 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
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, max.	40 °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	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	325 g
last modified:	3/3/2022 🗗