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

General information	
Product type designation	AQ 8xU/I HS
HW functional status	From FS01
Firmware version	V2.1.0
 FW update possible 	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
 Isochronous mode 	Yes
Prioritized startup	No
Output range scalable	No
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V14 / -
 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
 PROFINET from GSD version/GSD revision 	V2.3 / -
Operating mode	
Oversampling	Yes
• 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
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
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 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	
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 μ s; see additional description in the manual
Errors/accuracies	···· F., ···
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)	0.0 /0
Voltage, relative to output range, (+/-)	0.2 %
Current, relative to output range, (+/-)	0.2 %
Isochronous mode	400.00
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	
Diagnostic alarm	Yes
Diagnoses	
 Monitoring the supply voltage 	Yes
Wire-break	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	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
Highest safety class achievable for safety-related tripping of sta	andard 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, 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
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