











Figure similar

SIPLUS S7-1500 AQ 8xU/I HS based on 6ES7532-5HF00-0AB0 with conformal coating, -40...+70 °C, start up -25 °C, analog output module 16-bit resolution, accuracy 0.4%, 8 channels in groups of 8, diagnostics; substitute value 8 channels in 0.125 ms including infeed element, shielding bracket and shield terminal

General information	
Product type designation	AQ 8xU/I HS
Firmware version	
• FW update possible	Yes
based on	<a href="#">6ES7532-5HF00-0AB0</a>
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	see entry ID: 109746275
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 consumption from the backplane bus	1.15 W
Power loss	
Power loss, typ.	7 W
Analog outputs	
Number of analog outputs	8; > +60 °C max. 4x ±10 V permissible
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
<b>Output ranges, current</b>	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Connection of actuators</b>	
• for voltage output two-wire connection	Yes
• for voltage output four-wire connection	Yes
• for current output two-wire connection	Yes
<b>Load impedance (in rated range of output)</b>	
• 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
<b>Cable length</b>	
• shielded, max.	200 m
<b>Analog value generation for the outputs</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	16 bit
• Conversion time (per channel)	50 μs; independent of number of activated channels
<b>Settling time</b>	
• 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
<b>Errors/accuracies</b>	
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
<b>Operational error limit in overall temperature range</b>	
• Voltage, relative to output range, (+/-)	0.4 %
• Current, relative to output range, (+/-)	0.4 %
<b>Basic error limit (operational limit at 25 °C)</b>	
• Voltage, relative to output range, (+/-)	0.2 %
• Current, relative to output range, (+/-)	0.2 %
<b>Isochronous mode</b>	
Execution and activation time (TCO), min.	100 μs
Bus cycle time (TDP), min.	250 μs
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
Substitute values connectable	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnoses</b>	
• Monitoring the supply voltage	Yes
• Wire-break	Yes; Only for output type "current"
• Short-circuit	Yes; Only for output type "voltage"
• Overflow/underflow	Yes
<b>Diagnostics indication LED</b>	
• 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
<b>Potential separation</b>	
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
<b>Permissible potential difference</b>	
between S- and MANA (UCM)	8 V DC
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
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 eq]	11.1 kg
— 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 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
• remark on safety-oriented shutdown	<a href="https://support.industry.siemens.com/cs/de/en/view/39198632">https://support.industry.siemens.com/cs/de/en/view/39198632</a>
<b>Security</b>	
signed firmware update	No
data integrity	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C
• horizontal installation, max.	70 °C; = Tmax; > +60 °C max. 4x ±10 V permissible
• vertical installation, min.	-40 °C; = Tmin; Startup @ -25 °C
• vertical installation, max.	40 °C; = Tmax
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
<b>Resistance</b>	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN	Yes; Class 6S3 incl. sand, dust; *

60721-3-6																																											
Usage in industrial process technology																																											
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)																																										
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)																																										
Remark																																											
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!																																										
Conformal coating																																											
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability																																										
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection																																										
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life																																										
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A																																										
Dimensions																																											
Width	35 mm																																										
Height	147 mm																																										
Depth	129 mm																																										
Weights																																											
Weight, approx.	325 g																																										
Classifications																																											
	<table><tr><th></th><th>Version</th><th>Classification</th></tr><tr><td>eClass</td><td>14</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>12</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>9.1</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>9</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>8</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>7.1</td><td>27-24-22-01</td></tr><tr><td>eClass</td><td>6</td><td>27-24-22-01</td></tr><tr><td>ETIM</td><td>10</td><td>EC001420</td></tr><tr><td>ETIM</td><td>9</td><td>EC001420</td></tr><tr><td>ETIM</td><td>8</td><td>EC001420</td></tr><tr><td>ETIM</td><td>7</td><td>EC001420</td></tr><tr><td>IDEA</td><td>4</td><td>3562</td></tr><tr><td>UNSPSC</td><td>15</td><td>32-15-17-05</td></tr></table>		Version	Classification	eClass	14	27-24-22-01	eClass	12	27-24-22-01	eClass	9.1	27-24-22-01	eClass	9	27-24-22-01	eClass	8	27-24-22-01	eClass	7.1	27-24-22-01	eClass	6	27-24-22-01	ETIM	10	EC001420	ETIM	9	EC001420	ETIM	8	EC001420	ETIM	7	EC001420	IDEA	4	3562	UNSPSC	15	32-15-17-05
	Version	Classification																																									
eClass	14	27-24-22-01																																									
eClass	12	27-24-22-01																																									
eClass	9.1	27-24-22-01																																									
eClass	9	27-24-22-01																																									
eClass	8	27-24-22-01																																									
eClass	7.1	27-24-22-01																																									
eClass	6	27-24-22-01																																									
ETIM	10	EC001420																																									
ETIM	9	EC001420																																									
ETIM	8	EC001420																																									
ETIM	7	EC001420																																									
IDEA	4	3562																																									
UNSPSC	15	32-15-17-05																																									
Approvals / Certificates																																											
General Product Approval																																											
EMV																																											
<div><div> EG-Konf.</div><div><a href="#">Manufacturer Declaration</a></div><div></div><div><a href="#">China RoHS</a></div><div> UL</div><div><a href="#">KC</a></div></div>																																											
EMV	For use in hazardous locations	Maritime application	Environment																																								
 RCM	 IECEX	 ATEX	 DNV	 EPD																																							

last modified: 10/23/2025 