



SIPLUS S7-1500 AO 4XU/I ST -25 ... +70 DEGREES C
WITH CONFORMAL COATING BASED ON 6ES7532-
5HD00-0AB0 . ANALOG OUTPUT MODULE 16 BITS OF
RESOLUTION,
ACCURACY 0.3 %;
4 CHANNELS IN GROUPS OF 4;
DIAGNOSIS,
SUBSTITUTE VALUE INCL. INFEED ELEMENT,
SHIELD CLAMP AND SHIELD TERMINAL

General information	
Hardware product version	E01
Firmware version	V1.0.0
Product function	
I&M data	Yes ; I&M0 to I&M3
Engineering with	
STEP 7 TIA Portal can be configured/integrated as of version	V12 / V12
STEP 7 can be configured/integrated as of version	V5.5 SP3 / -
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption, max.	190 mA ; with 24 V DC supply
Power	
Power available from the backplane bus	0.6 W
Power losses	

Power loss, typ.	4 W
Analog outputs	
Number of analog outputs	4 ; > +60 °C max. 4x ±10 V permissible
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	24 mA
Current output, no-load voltage, max.	22 V
Cycle time (all channels), min.	3.2 ms ; independent of number of activated channels
Output ranges, voltage	
0 to 10 V	Yes
1 to 5 V	Yes
-10 to +10 V	Yes
Output ranges, current	
0 to 20 mA	Yes
-20 to +20 mA	Yes
4 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.	1 μF
with current outputs, max.	750 Ω
with current outputs, inductive load, max.	10 mH
Cable length	
Cable length, shielded, max.	800 m
Analog value creation	
Integrations and conversion time/resolution per channel	
Conversion time (per channel)	0.5 ms
Settling time	
for resistive load	1.5 ms
for capacitive load	2.5 ms
for inductive load	2.5 ms
Errors/accuracies	
Output ripple (based on output area, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.15 %
Temperature error (relative to output range), (+/-)	0.0020 %/K
Crosstalk between the outputs, max.	-100 dB

Repeat accuracy in steady state at 25 °C (relative to output area), (+/-)	0.05 %
Operational limit in overall temperature range	
Voltage, relative to output area, (+/-)	0.3 %
Current, relative to output area, (+/-)	0.3 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to output area, (+/-)	0.2 %
Current, relative to output area, (+/-)	0.2 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostics	Yes
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 the supply voltage	Yes ; Green LED
Channel status display	Yes ; Green LED
for channel diagnostics	Yes ; Red LED
for module diagnostics	Yes ; Red LED
Galvanic isolation	
Electrical isolation channels	
between the channels	No
between the channels, in groups of	4
between the channels and the backplane bus	Yes
between the channels and the load voltage L+	Yes
Permissible potential difference	
between MANA and M internally (UIISO)	75 V DC/60 V AC (base isolation)
between S- and MANA (UCM)	+/- 8 V
Ambient conditions	
Operating temperature	
horizontal installation, min.	-25 °C
horizontal installation, max.	70 °C
vertical installation, min.	-25 °C

vertical installation, max.	40 °C
Extended ambient conditions	
Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity	
With condensation, tested in accordance with IEC 60068-2-38, maximum	100 % ; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
to biologically active substances/conformity with EN 60721-3-3	Yes ; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
to chemically active substances/conformity with EN 60721-3-3	Yes ; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
to mechanically active substances/conformity with EN 60721-3-3	Yes ; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!
Decentralized operation	
Supports fast startup	Yes ; 500 ms
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	310 g
Status	May 9, 2014