

SIPLUS ET 200S EM 2AO I Standard -25...+70 °C with conformal coating based on 6ES7135-4GB01-0AB0 . "+/-20 mA; 13 bit+sign," "4..20mA; 13 bit" Cycle time less than 1 ms with SF LED (group fault)



Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V; From power module
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	150 mA
from backplane bus 3.3 V DC, max.	10 mA
Power loss	
Power loss, max.	2 W
Address area	
Address space per module	
• Address space per module, max.	4 byte
Analog outputs	
Number of analog outputs	2
Current output, no-load voltage, max.	18 V
Cycle time (all channels) max.	1.5 ms
Output ranges, current	

• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
• for current output two-wire connection	Yes
• for current output four-wire connection	No
Load impedance (in rated range of output)	
• with current outputs, max.	500 Ω
• with current outputs, inductive load, max.	1 mH
Destruction limits against externally applied voltages and currents	
• Voltages at the outputs towards MANA	15 V; max. 15 V continuous; 75 V for max. 1 s (mark to space ratio 1:20)
• Current, max.	50 mA; DC
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.	14 bit; 4 to 20 mA: 13 bits, ± 20 mA: 14 bits
Settling time	
• for resistive load	0.1 ms
• for capacitive load	0.5 ms
• for inductive load	0.5 ms
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.02 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.3 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; 0 to 65535 (range of values must be within the rated range)
Diagnostic messages	
• Wire-break	Yes
• Group error	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Parameter	

Remark	7 byte
Diagnostics wire break	Disable / enable
Output type/range	deactivated / ± 20 mA / 4 to 20 mA
Group diagnostics	Disable / enable
Response to CPU/master STOP	Output current and de-energized/substitute a value/keep last value

Potential separation

Potential separation analog outputs	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	Yes

Permissible potential difference

between MANA and M internally (UISO)	75 V DC/60 V AC
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Ambient conditions

Ambient temperature during operation	
• min.	-25 °C; = Tmin
• max.	70 °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)

Resistance

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 60721-3-6	Yes; Class 6S3 incl. sand, dust; *

from supply voltage 1L+

— Note regarding classification of environmental conditions acc. to EN 60721

* The supplied plug covers must remain in place over the unused interfaces during operation!

Dimensions

Width	15 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx.	40 g
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last modified: 05/16/2018