



SIPLUS ET 200S EM 2 AE I HF based on 6ES7134-4MB02-0AB0 with conformal coating, -25...+70 °C, electronic module 15 mm overall width, cycle time per module: 0.5 ms, +/-20 mA; 15 bit+sign, 4.. 20 mA; 15 bit, operational limit +/-0.1% with SF LED (group fault)

General information	
Product function	
<ul style="list-style-type: none"> • Isochronous mode 	Yes
Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V
<ul style="list-style-type: none"> • Reverse polarity protection 	Yes
Input current	
from load voltage L+ (without load), max.	48 mA
from backplane bus 3.3 V DC, max.	10 mA
Output voltage	
Power supply to the transmitters	
<ul style="list-style-type: none"> • present 	Yes
<ul style="list-style-type: none"> • short-circuit proof 	Yes
Power loss	
Power loss, typ.	1.2 W
Address area	
Address space per module	
<ul style="list-style-type: none"> • Address space per module, max. 	4 byte
Analog inputs	
Number of analog inputs	2
permissible input current for current input (destruction limit), max.	50 mA
Cycle time (all channels) max.	0.5 ms; 0.5 ms for 2 channels without noise suppression, 18 / 21 ms per channel with noise suppression
Input ranges (rated values), currents	
<ul style="list-style-type: none"> • -20 mA to +20 mA 	Yes
<ul style="list-style-type: none"> • 4 mA to 20 mA 	Yes
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	200 m
Analog value generation for the inputs	
Measurement principle	Sigma Delta
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> • Resolution with overrange (bit including sign), max. 	16 bit
<ul style="list-style-type: none"> • Integration time, parameterizable 	Yes
<ul style="list-style-type: none"> • Interference voltage suppression for interference frequency f1 in Hz 	60 / 50 Hz / no
<ul style="list-style-type: none"> • Conversion time (per channel) 	0.04 ms; Without noise suppression 17/20 ms per channel with error
Smoothing of measured values	

<ul style="list-style-type: none"> • parameterizable 	Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time
<ul style="list-style-type: none"> • Step: None 	Yes; 1x
<ul style="list-style-type: none"> • Step: low 	Yes; 4x
<ul style="list-style-type: none"> • Step: Medium 	Yes; 16x
<ul style="list-style-type: none"> • Step: High 	Yes; 32x
Encoder	
Connection of signal encoders	
<ul style="list-style-type: none"> • for current measurement as 2-wire transducer <ul style="list-style-type: none"> — Burden of 2-wire transmitter, max. 	750 Ω
Errors/accuracies	
Operational error limit in overall temperature range	
<ul style="list-style-type: none"> • Current, relative to input range, (+/-) 	0.1 %; 0.2% without interference frequency suppression
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> • Current, relative to input range, (+/-) 	0.05 %; 0.1% without interference frequency suppression
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> • Hardware interrupt 	Yes
Diagnoses	
<ul style="list-style-type: none"> • Wire break 	Yes; Measuring range 4 to 20 mA only
<ul style="list-style-type: none"> • Group error 	Yes
<ul style="list-style-type: none"> • Overflow/Underflow 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> • Group error SF (red) 	Yes
Parameter	
Remark	12 bytes, 4 bytes in compatibility mode
Diagnostics wire break	Disable / enable
Group diagnostics	Disable / enable
Overflow/Underflow	Disable / enable
Potential separation	
Potential separation analog inputs	
<ul style="list-style-type: none"> • between the channels 	No; however, increased permissible potential difference between the inputs.
<ul style="list-style-type: none"> • between the channels and backplane bus 	Yes
<ul style="list-style-type: none"> • Between the channels and load voltage L+ 	Yes
Standards, approvals, certificates	
CE mark	Yes
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. 	-25 °C; = Tmin
<ul style="list-style-type: none"> • max. 	70 °C; = Tmax
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	5 000 m
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)
Resistance	
Use in stationary industrial systems	
<ul style="list-style-type: none"> — 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
<ul style="list-style-type: none"> — 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); *
<ul style="list-style-type: none"> — to mechanically active substances according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul style="list-style-type: none"> — 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); *
<ul style="list-style-type: none"> — 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
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04

Yes; Class 3 (excluding trichlorethylene)

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!

Dimensions

Width	15 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx.	45 g
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Classifications

	Version	Classification
eClass	14	27-24-26-01
eClass	12	27-24-26-01
eClass	9.1	27-24-26-01
eClass	9	27-24-26-01
eClass	8	27-24-26-01
eClass	7.1	27-24-26-01
eClass	6	27-24-26-01
ETIM	10	EC001596
ETIM	9	EC001596
ETIM	8	EC001596
ETIM	7	EC001596
IDEA	4	3562
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



[Manufacturer Declaration](#)



[China RoHS](#)



[Metrological Approval](#)

General Product Approval

EMV

For use in hazardous locations



[CCC-Ex](#)

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