

SIPLUS ET 200S EM 2AI HF -25...+60°C with conformal coating based on 6ES7134-4LB02-0AB0 . 2 AI U High Feature for ET 200S, 15 mm width, Cycle time per module: "0.5 ms, ""+/-10 V; 15 bit+sign, "" "" +/-5 V; 15 bit+sign, 1..5V;" "15"" bit, Operational limit" +/- 0.1% with SF LED (group fault)



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	55 mA
from backplane bus 3.3 V DC, max.	10 mA
Output voltage	
Power supply to the transmitters	
• present	No
Power loss	
Power loss, typ.	0.85 W
Address area	
Address space per module	
• Address space per module, max.	4 byte

Analog inputs

Number of analog inputs	2
permissible input voltage for voltage input (destruction limit), max.	35 V; 35 V continuous; 75 V for max. 1 ms
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), voltages	
• 1 V to 5 V	Yes
— Input resistance (1 V to 5 V)	800 k Ω
• -10 V to +10 V	Yes
— Input resistance (-10 V to +10 V)	800 k Ω
• -5 V to +5 V	Yes
— Input resistance (-5 V to +5 V)	800 k Ω
Cable length	
• shielded, max.	200 m

Analog value generation for the inputs

Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit; 0 to 5 V: 15 bit, ± 10 V: 16 bit, ± 5 V: 16 bit
• Integration time, parameterizable	Yes
• Interference voltage suppression for interference frequency f1 in Hz	60 / 50 Hz / no
• Conversion time (per channel)	0.04 ms; Without noise suppression 17/20 ms per channel with error

Encoder

Connection of signal encoders	
• for voltage measurement	Yes

Errors/accuracies

Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	0.15 %; 0,25% without interference frequency suppression
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input range, (+/-)	0.05 %; 0.1% without interference frequency suppression

Interrupts/diagnostics/status information

Alarms	
• Hardware interrupt	Yes
Diagnostic messages	
• Wire-break	Yes; Measuring range 1 to 5 V only
• Group error	Yes
• Overflow/underflow	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes

Parameter	
Remark	12 bytes, 4 bytes in compatibility mode
Measurement type/range	deactivated / ± 5 V / 1 to 5 V / ± 10 V
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

Isolation	
Isolation tested with	500 V DC

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. 	60 °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	
— 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; *
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!

Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm

Weights	
Weight, approx.	45 g

last modified: 05/13/2020