



SIPLUS SM331 AI 8 X 0/4...20MA FOR MEDIAL STRESS
WITH CONFORMAL COATING BASED ON 6ES7331-7TF01
-0AB0

Supply voltage	
Load voltage L+	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	20 mA
from backplane bus 5 V DC, max.	120 mA
Power loss	
Power loss, typ.	1.5 W
Analog inputs	
Number of analog inputs	8
permissible input current for current input (destruction limit), max.	40 mA
Input ranges	
Voltage	No
Current	Yes
Thermocouple	No
Resistance thermometer	No
Resistance	No

Input ranges (rated values), currents	
0 to 20 mA	Yes
Input resistance (0 to 20 mA)	240 Ω
Input resistance (-20 to +20 mA)	240 Ω
Input resistance (4 to 20 mA)	240 Ω
Cable length	
Cable length, shielded, max.	800 m
Analog value generation	
Measurement principle	Sigma Delta
Integration and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	16 bit
Integration time, parameterizable	Yes
Integration time, ms	20 ms@50 Hz/16.6 ms@60 Hz/100 ms@100 Hz
Interference voltage suppression for interference frequency f1 in Hz	60 / 50 / 10 Hz
Encoder	
Connection of signal encoders	
for current measurement as 2-wire transducer	Yes
for current measurement as 4-wire transducer	Yes
Errors/accuracies	
Operational error limit in overall temperature range	
Current, relative to input area, (+/-)	0.15 %
Basic error limit (operational limit at 25 °C)	
Current, relative to input area, (+/-)	0.1 %
Isochronous mode	
Isochronous mode (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes
Limit value alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Diagnostic information readable	Yes
Diagnostics	Yes
Group error	Yes
Diagnostics indication LED	
Group error SF (red)	Yes
Galvanic isolation	

Galvanic isolation analog inputs	
between the channels	No
between the channels, in groups of	8
between the channels and the backplane bus	Yes
Isolation	
Isolation tested with	500
Standards, approvals, certificates	
CE mark	Yes
KC approval	Yes
UL approval	Yes ; File E239877
RCM (former C-TICK)	Yes
FM approval	Yes ; CofC 3028431
EAC (former Gost-R)	Yes
Ambient conditions	
Operating temperature	
min.	0 °C ; = Tmin
max.	60 °C ; = Tmax
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!
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	117 mm
Weights	
Weight, approx.	205 g

