



SIMATIC S7, ANALOG INPUT SM336 6 AI;
 15 BIT;
 FAILSAFE ANALOG INPUTS FOR SIMATIC SAFETY,
 WITH HART SUPPORT,
 UP TO CATEGORY 4 (EN954-1)/ SIL3 (IEC61508)/PLE
 (ISO13849),
 1 X 20 PIN,

Supply voltage	
Load voltage L+	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from backplane bus 5 V DC, max.	90 mA
from supply voltage L+, max.	150 mA ; Typical
Power losses	
Power loss, typ.	4.5 W
Analog inputs	
Number of analog inputs	6
permissible input current for current input (destruction limit), max.	40 mA
Input ranges	
Voltage	No
Current	Yes
Input ranges (rated values), currents	
0 to 20 mA	Yes
Input resistance (0 to 20 mA)	150 Ω ; typ. 150 ohms max. 175 ohms

4 to 20 mA	Yes
Input resistance (4 to 20 mA)	150 Ω ; typ. 150 ohms max. 175 ohms
Cable length	
Cable length, shielded, max.	1000 m
Analog value creation	
Integrations and conversion time/ resolution per channel	
Resolution with overrange (bit including sign), max.	16 bit ; 15 bits + sign
Integration time, ms	20 at 50 Hz 16.7 at 60 Hz
Interference voltage suppression for interference frequency f1 in Hz	f=n x (f1+0.5%)
Encoder	
Connection of signal encoders	
for current measurement as 2-wire transducer	Yes
for current measurement as 4-wire transducer	Yes
Errors/accuracies	
Operational limit in overall temperature range	
Current, relative to input area	+/- 0,2 % ; 40 µA
Basic error limit (operational limit at 25 °C)	
Current, relative to input area	+/- 0,1 %
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Diagnostic information readable	Yes
Diagnostics indication LED	
Fail-safe operation	Yes
Group error SF (red)	Yes
Monitoring 24 V voltage supply ON (green)	No
Galvanic isolation	
Galvanic isolation analog inputs	
between the channels	Yes
between the channels and the backplane bus	Yes
between the channels and the power supply of the electronics	Yes
Isolation	
Isolation checked with	370 V for 1 min
Standards, approvals, certificates	
Highest safety class achievable in safety mode	

acc. to DIN V 19250	old
acc. to EN 954	4
acc. to IEC 61508	SIL 3
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weight	
Weight, approx.	350 g
Status	Mar 4, 2013