

*** SPARE PART*** SIMATIC SC,ELECTRONIC SUBMODULE 1
AO, +/-10V, 1..5V

General information	
Usable terminal block	TB 16SC
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from supply voltage L+, max.	50 mA
Power loss	
Power loss, max.	1 W
Hardware configuration	
Slots	
• required slots	2; from 8
Analog outputs	
Number of analog outputs	1
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	30 mA
Output ranges, voltage	
• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
Connection of actuators	
• for voltage output two-wire connection	Yes
• for voltage output four-wire connection	Yes
Load impedance (in rated range of output)	
• with voltage outputs, capacitive load, max.	1 μ F
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 (incl. overrange)	S7 representation: ± 10 V, 1 V to 5 V; S5 representation: 12 bit, 11 bit

• Resolution with overrange (bit including sign), max.	12 bit
• Conversion time (per channel)	5 ms
Settling time	
• for resistive load	0.1 ms
• for capacitive load	3.3 ms
Errors/accuracies	
Linearity error (relative to output range), (+/-)	0.06 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.1 %
Operational error limit in overall temperature range	
• Voltage, relative to output range, (+/-)	0.9 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to output range, (+/-)	0.6 %
Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, f_1 = interference frequency	
• Common mode interference (UCM < V _{SS} AC (50 Hz)), min.	30 dB
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Substitute values connectable	No
Potential separation	
Potential separation analog outputs	
• between the channels and backplane bus	No; Optocoupler
• between the channels and the power supply of the electronics	No
Permissible potential difference	
between reference point of load and QV-(UCM)	2 V DC / 2 V _{pp} AC
Isolation	
Isolation tested with	1500 V AC
Dimensions	
Width	20 mm
Height	64 mm
Depth	51 mm
Weights	
Weight, approx.	25 g
last modified:	08/12/2019