

*** SPARE PART*** SIMATIC SC,ELECTRONIC SUBMODULE 1
AO, 4..20MA, +/-20MA

| 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 | |
| Rack | |
| • required terminal block | TB 16SC |
| Slots | |
| • required slots | 2; from 8 |
| Analog outputs | |
| Number of analog outputs | 1 |
| Current output, no-load voltage, max. | 16 V |
| Output ranges, current | |
| • 0 to 20 mA | Yes |
| • 4 mA to 20 mA | Yes |
| Connection of actuators | |
| • for current output two-wire connection | Yes |
| Load impedance (in rated range of output) | |
| • with current outputs, max. | 600 Ω; at common-mode voltage 2 V, max. 500 ohms; at common-mode voltage 0 V, max. 600 ohms; idle test |
| • with current outputs, inductive load, max. | 1 mH |
| 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: 0 mA to 20 mA, 4 mA to 20 mA; S5 representation: 12 bits, 12 bits |

| | |
|---|-------------------------------|
| <ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. | 12 bit |
| <ul style="list-style-type: none"> Conversion time (per channel) | 5 ms |
| Settling time | |
| <ul style="list-style-type: none"> for resistive load | 0.1 ms |
| <ul style="list-style-type: none"> for inductive load | 0.5 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 | |
| <ul style="list-style-type: none"> Current, relative to output range, (+/-) | 1 % |
| Basic error limit (operational limit at 25 °C) | |
| <ul style="list-style-type: none"> Current, relative to output range, (+/-) | 0.7 % |
| Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, f_1 = interference frequency | |
| <ul style="list-style-type: none"> Common mode interference (UCM < V_{ss} AC (50 Hz)), min. | 30 dB |
| Interrupts/diagnostics/status information | |
| Alarms | No |
| Diagnostic functions | No |
| Substitute values connectable | No |
| Potential separation | |
| Potential separation analog outputs | |
| <ul style="list-style-type: none"> between the channels and backplane bus | No; Optocoupler |
| <ul style="list-style-type: none"> 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: | 08/12/2017 |