



SIMATIC DP, ELECTRONIC MODULE 2 AO U HIGH FEATURE FOR ET 200S, 15 MM WIDE, CYCLE TIME PER MODULE: 0.5MS, +/-10V; 15 BIT + SIGN, 1 .. 5V; 15 BIT, OPERATIONAL LIMITS +/- 0.07% WITH LED SF (GROUP FAULT)

| Supply voltage | |
|---|----------------------------------|
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 80 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |
| Power losses | |
| Power loss, max. | 1.2 W |
| Address area | |
| Address space per module | |
| • Address space per module, max. | 4 byte |
| Analog outputs | |
| Number of analog outputs | 2 |
| Voltage output, short-circuit protection | Yes |
| Voltage output, short-circuit current, max. | 25 mA |
| Cycle time (all channels) max. | 0.5 ms; At max. 0.5 µF |
| Output ranges, voltage | |
| • 1 V to 5 V | Yes; -5 to +5 V also implemented |
| • -10 V to +10 V | Yes |
| Connection of actuators | |
| • for voltage output two-wire connection | Yes |
| • for voltage output four-wire connection | Yes |

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| Load impedance (in rated range of output) | |
| • with voltage outputs, min. | 1 k Ω |
| • with voltage outputs, capacitive load, max. | 0.5 μ F |
| Destruction limits against externally applied voltages and currents | |
| • Voltages at the outputs towards MANA | 15 V; as required |
| Cable length | |
| • shielded, max. | 200 m; 100m if Twa < 2ms |
| Analog value creation | |
| Integration and conversion time/resolution per channel | |
| • Resolution with overrange (bit including sign), max. | 16 bit; 15 bits + sign |
| Settling time | |
| • for resistive load | 0.2 ms |
| • for capacitive load | 0.5 ms; At max. 0.5 μ F |
| • for inductive load | 0.5 ms |
| Errors/accuracies | |
| Output ripple (based on output area, bandwidth 0 to 50 kHz), (+/-) | 0.02 % |
| Linearity error (relative to output range), (+/-) | 0.01 % |
| Crosstalk between the outputs, min. | 60 dB |
| Repeat accuracy in steady state at 25 °C (relative to output area), (+/-) | 0.01 % |
| Operational limit in overall temperature range | |
| • Voltage, relative to output area, (+/-) | 0.1 % |
| Basic error limit (operational limit at 25 °C) | |
| • Voltage, relative to output area, (+/-) | 0.05 % |
| Isochronous mode | |
| Isochronous operation (application synchronized up to terminal) | Yes |
| Interrupts/diagnostics/status information | |
| Substitute values connectable | Yes |
| Diagnostic messages | |
| • Diagnostic information readable | Yes |
| • Short circuit | Yes |
| • Group error | Yes |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| Parameter | |
| Remark | 7 byte |
| Output type/range | deactivated / 1 to 5 V / +/- 10 V / +/- 5 V |
| Diagnosis: short circuit | Disable / enable |

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| Interference frequency suppression | No |
| Group diagnostics | Disable / enable |
| Behavior on CPU/Master STOP | Output current and de-energized/substitute a value/keep last value |

Galvanic isolation

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| Galvanic isolation analog outputs | |
| • between the channels | No |
| • between the channels and the backplane bus | Yes |
| • between the channels and the load voltage L+ | Yes |

Permissible potential difference

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|--------------------------------------|---------------|
| between MANA and M internally (UISO) | 75V DC/60V AC |
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Isolation

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| Isolation checked with | 500 V DC |
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Dimensions

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| Width | 15 mm |
| Height | 81 mm |
| Depth | 52 mm |

Weights

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| Weight, approx. | 40 g |
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last modified: 12.03.2015