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## Data sheet 6ES7145-4GF00-0AB0



Figure similar

SIMATIC DP, Electronic modules for ET 200 PRO 4 AO I High Feature, +-20 mA; 0...20 mA; 4-20mA; Channel diagnostics; incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately

| | |
|---|---|
| **Supply voltage** | |
| Rated value (DC) | 24 V |
| Reverse polarity protection | Yes; against destruction |
| **Input current** | |
| from supply voltage 1L+, max. | 110 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |
| **Actuator supply** | |
| Number of outputs | 4 |
| Short-circuit protection | Yes; per module |
| Output current | |
| ● up to 55 °C, max. | 1 A |
| **Power loss** | |
| Power loss, typ. | 2.3 W |
| **Address area** | |
| Address space per module | |
| ● Address space per module, max. | 8 byte |
| **Analog outputs** | |
| Number of analog outputs | 4 |
| Voltage output, short-circuit protection | Yes; per module, electronic to frame |
| Current output, no-load voltage, max. | 16 V |
| Cycle time (all channels) max. | 3 ms |
| Output ranges, current | |
| ● 0 to 20 mA | Yes |
| ● -20 mA to +20 mA | Yes |
| ● 4 mA to 20 mA | Yes |
| Connection of actuators | |
| ● for current output two-wire connection | Yes |
| ● for current output four-wire connection | Yes |
| Load impedance (in rated range of output) | |
| ● with current outputs, max. | 600 Ω |
| ● with current outputs, inductive load, max. | 1 mH |
| Destruction limits against externally applied voltages and currents | |
| ● Current, max. | 100 mA |
| Cable length | |
| ● shielded, max. | 30 m |
| **Analog value generation for the outputs** | |
| Integration and conversion time/resolution per channel | |
| ● Resolution with overrange (bit including sign), max. | 15 bit; at ±20 mA; 14 bit at 0 to 20 mA; 15 bit at 4 to 20 mA |


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| | |
|---|---|
| ● Conversion time (per channel) | 0.7 ms |
| Settling time | |
| ● for resistive load | 0.1 ms |
| ● for inductive load | 1 ms |
| **Errors/accuracies** | |
| Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) | 0.02 % |
| Linearity error (relative to output range), (+/-) | 0.1 % |
| Temperature error (relative to output range), (+/-) | 0.01 %/K |
| Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) | 0.05 % |
| Operational error limit in overall temperature range | |
| ● Current, relative to output range, (+/-) | 0.2 % |
| Basic error limit (operational limit at 25 °C) | |
| ● Current, relative to output range, (+/-) | 0.15 % |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Substitute values connectable | Yes |
| Alarms | |
| ● Diagnostic alarm | Yes; Parameterizable |
| ● Hardware interrupt | No |
| Diagnoses | |
| ● Diagnostic information readable | Yes |
| ● Wire break | Yes; per channel, not in zero range |
| ● short-circuit | No |
| Diagnostics indication LED | |
| ● Group error SF (red) | Yes |
| **Potential separation** | |
| Potential separation analog outputs | |
| ● between the channels | No |
| ● between the channels and backplane bus | Yes |
| **Isolation** | |
| Isolation tested with | 707 V DC (type test) |
| **Dimensions** | |
| Width | 45 mm |
| Height | 130 mm |
| Depth | 35 mm |
| **Weights** | |
| Weight, approx. | 150 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 16 | 27-24-26-01 |
| eClass | 14 | 27-24-26-01 |
| eClass | 12 | 27-24-26-01 |
| eClass | 9.1 | 27-24-26-01 |
| eClass | 9 | 27-24-26-01 |
| eClass | 8 | 27-24-26-01 |
| eClass | 7.1 | 27-24-26-01 |
| eClass | 6 | 27-24-26-01 |
| ETIM | 10 | EC001596 |
| ETIM | 9 | EC001596 |
| ETIM | 8 | EC001596 |
| ETIM | 7 | EC001596 |
| IDEA | 4 | 3562 |
| UNSPSC | 15 | 32-15-17-05 |

**Approvals / Certificates**


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**General Product Approval**

| | | | |
|---|---|---|---|
| Manufacturer Declaration | Miscellaneous | EAC | China RoHS |

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