SIEMENS

Data sheet

6ES7142-6BG00-0AB0



SIMATIC DP, ET 200ECO PN, 8 DO 24 V DC/1.3 A; 8xM12, Degree of protection IP67

Figure similar

| General information | | |
|---|-----------------------|--|
| Vendor identification (VendorID) | 002AH | |
| Device identifier (DeviceID) | 0306H | |
| Supply voltage | | |
| Rated value (DC) | 24 V | |
| Reverse polarity protection | Yes | |
| power supply according to NEC Class 2 required | Yes | |
| Load voltage 1L+ | | |
| Rated value (DC) | 24 V | |
| permissible range, lower limit (DC) | 20.4 V | |
| permissible range, upper limit (DC) | 28.8 V | |
| Reverse polarity protection | Yes | |
| Load voltage 2L+ | | |
| Rated value (DC) | 24 V | |
| permissible range, lower limit (DC) | 20.4 V | |
| permissible range, upper limit (DC) | 28.8 V | |
| Reverse polarity protection | Yes | |
| Input current | | |
| Current consumption, typ. | 100 mA | |
| from supply voltage 1L+, max. | 4 A | |
| from load voltage 1L+ (unswitched voltage) | 4 A | |
| from load voltage 2L+, max. | 4 A | |
| Power loss | | |
| Power loss, typ. | 5.5 W | |
| Digital outputs | | |
| Number of digital outputs | 8 | |
| • in groups of | 4 | |
| Short-circuit protection | Yes | |
| Response threshold, typ. | 1.8 A | |
| Limitation of inductive shutdown voltage to | Typ. (L1+, L2+) -47 V | |
| Controlling a digital input | Yes | |
| Switching capacity of the outputs | | |
| on lamp load, max. | 5 W | |
| Output current | | |
| for signal "1" rated value | 1.3 A; Maximum | |
| for signal "0" residual current, max. | 1.5 mA | |
| Parallel switching of two outputs | | |
| for uprating | No | |
| for redundant control of a load | Yes | |

| Switching frequency | |
|--|----------------------------------|
| with resistive load, max. | 100 Hz |
| with inductive load, max. | 0.5 Hz |
| on lamp load, max. | 1 Hz |
| Total current of the outputs (per group) | |
| all mounting positions | |
| — up to 60 °C, max. | 3.9 A |
| Cable length | |
| • unshielded, max. | 30 m |
| Interfaces | |
| Transmission procedure | 100BASE-TX |
| Number of PROFINET interfaces | 1 |
| 1. Interface | |
| Interface types | |
| integrated switch | Yes |
| Interface types | |
| M12 port | |
| Autonegotiation | Yes |
| Autocrossing | Yes |
| Transmission rate, max. | 100 Mbit/s |
| Protocols | |
| Supports protocol for PROFINET IO | Yes |
| PROFINET CBA | No |
| PROFINET CBA PROFIsafe | No |
| PROFINET IO Device | 110 |
| Services | |
| — IRT with the option "high flexibility" | Yes |
| Prioritized startup | Yes |
| | 1 65 |
| Redundancy mode Media redundancy | |
| — MRP | Yes |
| Open IE communication | 1 65 |
| • TCP/IP | No |
| • SNMP | Yes |
| • DCP | |
| • LLDP | Yes |
| | Yes |
| pingARP | Yes |
| | Yes |
| Interrupts/diagnostics/status information | V |
| Diagnostics function | Yes |
| Alarms | Ver |
| Diagnostic alarm | Yes |
| Diagnoses | V |
| Diagnostic information readable | Yes |
| Monitoring the supply voltage | Yes; green "ON" LED |
| Wire-break in actuator cable | Yes |
| Short-circuit | Yes |
| Group error | Yes; Red/yellow "SF/MT" LED |
| Potential separation | |
| between the load voltages | Yes |
| between load voltage and all other switching components | No |
| between Ethernet and electronics | Yes |
| Potential separation channels | |
| between the channels | No |
| Isolation | |
| tested with | |
| • 24 V DC circuits | 707 V DC (type test) |
| Test voltage for interface, rms value [Vrms] | 1 500 V; According to IEEE 802.3 |
| Degree and class of protection | |
| IP degree of protection | IP65/67 |
| · · · · · · · · · · · · · · · · · · · | |

| Standards, approvals, certificates | | |
|---|---|--|
| Suitable for safety-related tripping of standard modules | Yes | |
| Highest safety class achievable for safety-related tripping of standard modules | | |
| Performance level according to ISO 13849-1 | PL d | |
| Category according to ISO 13849-1 | Cat. 3 | |
| SIL acc. to IEC 62061 | SIL 2 | |
| remark on safety-oriented shutdown | https://support.industry.siemens.com/cs/de/en/view/39198632 | |
| Use in hazardous areas | | |
| Explosion protection category for gas | ATEX II 3G Ex nA II T4 | |
| Explosion protection category for dust | ATEX II 3D Ex tc IIIC T90°C Dc | |
| connection method | | |
| Design of electrical connection | 4/5-pin M12 circular connectors | |
| Dimensions | | |
| Width | 60 mm | |
| Height | 175 mm | |
| Depth | 49 mm | |
| Weights | | |
| Weight, approx. | 910 g | |

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last modified: