



Figure similar

SIMATIC, electronic module for ET200iSP, 4 DO, 17.4 V DC/40 mA, "L"-shutdown, Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC Da] IIC T4 Gb, Ex ib [ia] I Mb

| General information | |
|--|---|
| Product brand name | SIMATIC |
| Product family | ET 200iSP |
| Product category | Digital module output |
| Product type designation | 4DQ 17.4 V DC/40 mA |
| HW functional status | 2 |
| Firmware version | V3.0.0 |
| Product version | SHUT DOWN "L" |
| Installation type/mounting | |
| Rack mounting | No |
| Front mounting | Yes |
| Rail mounting | Yes |
| Wall mounting/direct mounting | No |
| Supply voltage | |
| Type of supply voltage | DC |
| Input current | |
| Current consumption, typ. | 380 mA |
| from load voltage (power bus), max. | 400 mA |
| Power loss | |
| Power loss, typ. | 2.8 W |
| Address area | |
| Address space per module | |
| • Address space per module, max. | 2 byte |
| Hardware configuration | |
| Fieldbus connection via separate transceiver | Yes |
| Digital outputs | |
| Type of digital output | Transistor |
| Number of digital outputs | 4; additionally 1 intrinsically-safe input for L shutdown |
| Short-circuit protection | Yes |
| No-load voltage U_{ao} (DC) | 17.4 V |
| Internal resistor R_i | 167 Ω |
| Trend key points E | |
| • Voltage U_e (DC) | 10.7 V |
| • Current I_e | 40 mA |
| Output voltage | |
| • Type of output voltage | DC |
| • permissible voltage at output, min. | 0 V |
| • permissible voltage at output, max. | 17.4 V |

| | |
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| Output current | |
| • for signal "1" rated value | 0.04 A |
| Output delay with resistive load | |
| • "0" to "1", max. | 2 ms |
| • "1" to "0", max. | 1.5 ms |
| Parallel switching of two outputs | |
| • for uprating | Yes |
| Switching frequency | |
| • with resistive load, max. | 100 Hz |
| • with inductive load, max. | 2 Hz |
| Cable length | |
| • shielded, max. | 500 m |
| • unshielded, max. | 500 m |
| Interfaces | |
| Number of PROFINET interfaces | 0 |
| Number of RS 485 interfaces | 0 |
| Protocols | |
| Supports protocol for PROFINET IO | No |
| PROFIsafe | No |
| PROFIBUS | No |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes |
| Alarms | |
| • Diagnostic alarm | Yes; Parameterizable |
| • Hardware interrupt | No |
| Diagnoses | |
| • Diagnostic information readable | Yes |
| • Wire-break | Yes; $R > 10 \text{ kohms}$, $I < 100 \text{ }\mu\text{A}$ |
| • Short-circuit | Yes; $R < 80 \text{ Ohm}$ (one output), $R < 40 \text{ Ohm}$ (outputs connected in parallel) |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| • Status indicator digital output (green) | Yes; Per channel |
| Ex(i) characteristics | |
| Module for Ex(i) protection | Yes; for more Co/Lo combinations, see certificate IECEx KEM 05.0011 |
| maximum values for connecting terminals for gas group IIC | |
| • U_o (no-load voltage), max. | 19.4 V |
| • I_o (short-circuit current), max. | 118 mA |
| • P_o (power output), max. | 0.57 W |
| • C_o (permissible external capacity), max. | 0.24 μF |
| • L_o (permissible external inductivity), max. | 2.5 mH |
| • U_i (intrinsically safe input voltage), max. | 28 V; switch input circuit |
| • P_i (intrinsically safe input power), max. | 1.2 W; switch input circuit |
| • C_i (internal capacity), max. | 3 nF; switch input circuit |
| Potential separation | |
| Potential separation digital outputs | |
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • Between the channels and load voltage L+ | Yes |
| Permissible potential difference | |
| between different circuits | 60 V DC/30 V AC |
| Degree and class of protection | |
| IP degree of protection | IP30 |
| Standards, approvals, certificates | |
| CE mark | CE 0344 |
| UKCA mark | DEKRA 21UKEX0085 Importer UK: Siemens plc Manchester M20 2UR |
| cULus | LISTED E334384 |
| FM approval | CLASSIFIED 3025852 |
| Suitable for safety functions | No |

| | |
|--|--|
| INMETRO certificate | UL-BR 12.0073 |
| reference designation according to IEC 81346-2 (2009) | K |
| Highest safety class achievable in safety mode | |
| <ul style="list-style-type: none"> SIL acc. to IEC 61508 | No |
| Use in hazardous areas | |
| <ul style="list-style-type: none"> ATEX marking ATEX certificate IECEX CCC Ex EAC Ex FM marking Explosion protection category for gas Explosion protection category for dust associated equipment (Ex ia) associated equipment (Ex ib) | <p>II 2 G (1) G Ex ib [ia Ga] IIC T4 Gb II 2 G (1) D Ex ib [ia IIIC Da] IIC T4 Gb I M2 Ex ib [ia] I Mb</p> <p>KEMA 04 ATEX 1249</p> <p>IECEX KEM 05.0011</p> <p>2020322316002945</p> <p>PB Ex ib [ia] I Mb 1Ex ib [ia Ga] IIC T4 Gb [Ex ia Da] IIIC</p> <p>Class I, Zone 1 AEx ib [ia] IIC T4 Ex ib IIC T4 NI, Class I, DIV.2, GP. A,B,C,D T4 AIS, Class I, DIV.1, GP. A,B,C,D T4 DIP Class II, III, GP. E,F,G</p> <p>ATEX gas explosion protection, Zone 1</p> <p>ATEX dust explosion protection, Zone 21 always install in corresponding enclosure</p> <p>Yes</p> <p>Yes</p> |
| Marine approval | |
| <ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> |

Connection method

| | |
|---------------------------------|----------------------------|
| Design of electrical connection | Screw/spring-type terminal |
|---------------------------------|----------------------------|

Dimensions

| | |
|--------|----------|
| Width | 30 mm |
| Height | 129 mm |
| Depth | 136.5 mm |

Weights

| | |
|-----------------|-------|
| Weight, approx. | 255 g |
|-----------------|-------|

Classifications

| | Version | Classification |
|--------|---------|----------------|
| eClass | 14 | 27-24-26-04 |
| eClass | 12 | 27-24-26-04 |
| eClass | 9.1 | 27-24-26-04 |
| eClass | 9 | 27-24-26-04 |
| eClass | 8 | 27-24-26-04 |
| eClass | 7.1 | 27-24-26-04 |
| eClass | 6 | 27-24-26-04 |
| ETIM | 10 | EC001599 |
| ETIM | 9 | EC001599 |
| ETIM | 8 | EC001599 |
| ETIM | 7 | EC001599 |
| IDEA | 4 | 3566 |
| UNSPSC | 15 | 32-15-17-05 |

Approvals / Certificates

General Product Approval



[Miscellaneous](#)

[China RoHS](#)



For use in hazardous locations



ATEX



IECEX

[FM](#)



IECEX

[Miscellaneous](#)



CCC

For use in hazardous locations

Maritime application

[CCC-Ex](#)



UL



[Miscellaneous](#)

[Miscellaneous](#)



ABS

Maritime application

Environment



BUREAU
VERITAS



DNV



LRS

[NK / Nippon Kaiji Ky-
okai](#)



PRS



EPD

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