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## Data sheet 6ES7132-7RD01-0AB0



SIMATIC, electronic module for ET200iSP, 4 DO, 23.1 V DC/20 mA "H"-shutdown, Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC Da] IIC T4 Gb, Ex ib [ia] I Mb

| | |
|---|---|
| **General information** | |
| Product type designation | 4DQ 23.1 V DC/20 mA |
| HW functional status | 7 |
| Firmware version | V3.0.0 |
| **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. | 290 mA |
| from load voltage (power bus), max. | 340 mA; with actuator supply |
| **Power loss** | |
| Power loss, typ. | 2.5 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 H shutdown |
| Short-circuit protection | Yes |
| No-load voltage Uao (DC) | 23.1 V |
| Internal resistor Ri | 275 Ω |
| Trend key points E | |
| ● Voltage Ue (DC) | 17.6 V |
| ● Current Ie | 20 mA |
| Output voltage | |
| ● Type of output voltage | DC |
| Output current | |
| ● for signal "1" rated value | 0.02 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 | No; for Ex reasons not possible; nor for predecessor |


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|---|---|
| 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** | |
| 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 kohms, I < 100 µA |
| ● short-circuit | Yes; R< 80 Ohm (one output), R< 40 Ohm (outputs connected in parallel) |
| Diagnostics indication LED | |
| ● Group error SF (red) | Yes |
| ● Status indicator digital output (green) | Yes |
| **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 | |
| ● Uo (no-load voltage), max. | 25.6 V |
| ● Io (short-circuit current), max. | 96 mA |
| ● Po (power output), max. | 0.61 W |
| ● Co (permissible external capacity), max. | 98 nF |
| ● Lo (permissible external inductivity), max. | 3 mH |
| ● Ui (intrinsically safe input voltage), max. | 28 V; switch input circuit |
| ● Pi (intrinsically safe input power), max. | 1.2 W; switch input circuit |
| ● Ci (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 |
| **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 | |
| ● SIL acc. to IEC 61508 | No |
| Use in hazardous areas | |
| ● ATEX marking | 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 |
| ● ATEX certificate | KEMA 04 ATEX 1249 |
| ● IECEx | IECEx KEM 05.0011 |
| ● CCC Ex | 2020322316002945 |


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| | |
|---|---|
| ● EAC Ex | PB Ex ib [ia] I Mb 1Ex ib [ia Ga] IIC T4 Gb [Ex ia Da] IIIC |
| ● FM marking | 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 |
| ● Explosion protection category for gas | ATEX gas explosion protection, Zone 1 |
| ● Explosion protection category for dust | ATEX dust explosion protection, Zone 21 always install in corresponding enclosure |
| ● associated equipment (Ex ia) | Yes |
| ● associated equipment (Ex ib) | Yes |
| Marine approval | |
| ● Germanischer Lloyd (GL) | Yes |
| ● American Bureau of Shipping (ABS) | Yes |
| ● Bureau Veritas (BV) | Yes |
| ● Det Norske Veritas (DNV) | Yes |
| **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 | 16 | 27-24-26-04 |
| 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

| General Product Approval | For use in hazardous locations | | | | |
|---|---|---|---|---|---|
| Manufacturer Declaration | ATEX | IECEx | FM | IECEx | Miscellaneous |

**For use in hazardous locations**


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|---|---|---|---|---|---|
| CCC | CCC-Ex | UL | INMETRO | Miscellaneous | Miscellaneous |

**Maritime application**

| | | | | | |
|---|---|---|---|---|---|
| ABS | BUREAU VERITAS | DNV | LRS | NK / Nippon Kaiji Kyokai | PRS |

**Environment**

EPD

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