



SIMATIC S7-1200, Digital output SM 1226, F-DQ 4x 24 V DC 2A, PROFIsafe, 70 mm overall width, up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)

| General information                            |                                                      |
|------------------------------------------------|------------------------------------------------------|
| Product type designation                       | SM 1226 F-DQ 4x 24 VDC                               |
| Supply voltage                                 |                                                      |
| permissible range, lower limit (DC)            | 20.4 V                                               |
| permissible range, upper limit (DC)            | 28.8 V                                               |
| power supply according to NEC Class 2 required | No                                                   |
| Input current                                  |                                                      |
| from backplane bus 5 V DC, max.                | 125 mA                                               |
| Digital outputs                                |                                                      |
| • from load voltage L+, max.                   | 170 mA                                               |
| Power loss                                     |                                                      |
| Power loss, typ.                               | 8 W                                                  |
| Digital outputs                                |                                                      |
| Number of digital outputs                      | 4                                                    |
| • in groups of                                 | 1                                                    |
| Short-circuit protection                       | Yes                                                  |
| Switching capacity of the outputs              |                                                      |
| • with resistive load, max.                    | 30 Hz                                                |
| • on lamp load, max.                           | 10 Hz                                                |
| Output voltage                                 |                                                      |
| • Rated value (DC)                             | 24 V                                                 |
| Output current                                 |                                                      |
| • for signal "1" rated value                   | 2 A                                                  |
| • for signal "1" permissible range, max.       | 10 mA to 2.4 A                                       |
| • for signal "0" residual current, max.        | P-switch: 0.5 mA, maximum; M-switch: 0.5 mA, maximum |
| Cable length                                   |                                                      |
| • shielded, max.                               | 200 m                                                |
| • unshielded, max.                             | 200 m                                                |
| Interrupts/diagnostics/status information      |                                                      |
| Diagnostics indication LED                     |                                                      |
| • for status of the outputs                    | Yes                                                  |
| Degree and class of protection                 |                                                      |
| IP degree of protection                        | IP20                                                 |
| Standards, approvals, certificates             |                                                      |
| CE mark                                        | Yes                                                  |
| cULus                                          | Yes                                                  |
| FM approval                                    | Yes                                                  |
| Highest safety class achievable in safety mode |                                                      |
| • Performance level according to ISO 13849-1   | Category 4, PL e                                     |
| • SIL acc. to IEC 61508                        | SIL 3                                                |

|                                                                                    |            |
|------------------------------------------------------------------------------------|------------|
| Probability of failure (for service life of 20 years and repair time of 100 hours) |            |
| — Low demand mode: PFDavg in accordance with SIL3                                  | < 1.00E-05 |
| — High demand/continuous mode: PFH in accordance with SIL3                         | < 4.00E-09 |

#### Ambient conditions

##### Free fall

- Fall height, max. 0.3 m; five times, in product package

##### Ambient temperature during operation

- min. 0 °C
- max. 55 °C
- permissible temperature change 5°C to 55°C, 3°C / minute

##### Ambient temperature during storage/transportation

- min. -40 °C
- max. 70 °C

##### Air pressure acc. to IEC 60068-2-13

- Storage/transport, min. 660 hPa
- Storage/transport, max. 1 080 hPa

##### Relative humidity

- Operation at 25 °C without condensation, max. 95 %

#### Mechanics/material

|                            |     |
|----------------------------|-----|
| Enclosure material (front) |     |
| • Plastic                  | Yes |

#### Dimensions

|        |        |
|--------|--------|
| Width  | 70 mm  |
| Height | 100 mm |
| Depth  | 75 mm  |

#### Weights

|                 |       |
|-----------------|-------|
| Weight, approx. | 270 g |
|-----------------|-------|

#### Classifications

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 27-24-22-04    |
| eClass | 12      | 27-24-22-04    |
| eClass | 9.1     | 27-24-22-04    |
| eClass | 9       | 27-24-22-04    |
| eClass | 8       | 27-24-22-04    |
| eClass | 7.1     | 27-24-22-04    |
| eClass | 6       | 27-24-22-04    |
| ETIM   | 9       | EC001419       |
| ETIM   | 8       | EC001419       |
| ETIM   | 7       | EC001419       |
| IDEA   | 4       | 3566           |
| UNSPSC | 15      | 32-15-17-05    |

#### Approvals / Certificates

|                          |     |                                |
|--------------------------|-----|--------------------------------|
| General Product Approval | EMV | For use in hazardous locations |
|--------------------------|-----|--------------------------------|



#### For use in hazardous locations

##### Functional Safety



FM



CCC-Ex



[Type Examination Certificate](#)

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last modified:

3/12/2024 