



SIMATIC S7-1200, Relay output SM 1226, F-DQ 2x RLY 5A, PROFIsafe, 70 mm overall width, up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)

| General information                            |                                                                                          |
|------------------------------------------------|------------------------------------------------------------------------------------------|
| Product type designation                       | SM 1226, F-DQ 2x relay/5 A                                                               |
| 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.                | 120 mA                                                                                   |
| Digital outputs                                |                                                                                          |
| • from load voltage L+, max.                   | 300 mA                                                                                   |
| Power loss                                     |                                                                                          |
| Power loss, typ.                               | 10 W                                                                                     |
| Digital outputs                                |                                                                                          |
| Number of digital outputs                      | 2                                                                                        |
| Short-circuit protection                       | No                                                                                       |
| Output voltage                                 |                                                                                          |
| • Rated value (DC)                             | 5 V DC to 30 V DC                                                                        |
| • Rated value (AC)                             | 5 V AC to 250 V AC                                                                       |
| Output current                                 |                                                                                          |
| • for signal "1" permissible range, max.       | 5 A maximum per circuit and 10 A maximum of all circuits per module                      |
| Relay outputs                                  |                                                                                          |
| • Number of relay outputs                      | 2; 2 circuits per output                                                                 |
| Switching capacity of contacts                 |                                                                                          |
| — with inductive load, max.                    | 0.1 Hz, accordance with IEC 60947-5-1, DC-13; 2 Hz, accordance with IEC 60947-5-1, AC-15 |
| — with resistive load, max.                    | 2 Hz                                                                                     |
| 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. | 300 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 |
|--------------------------|-----|



[Miscellaneous](#)



|                                |                   |
|--------------------------------|-------------------|
| For use in hazardous locations | Functional Safety |
|--------------------------------|-------------------|

[FM](#)



[Type Examination Certificate](#)

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last modified:

3/12/2024 