

## NPFSR-K122YMD

Input: E-STOP, Safety gate

Output: 2NO, non-delay + 2NO, d-delay

The inputs of K series E-STOP, safety gate input safety relays are normally closed contact signals, which are used for emergency braking or the protection of people entering dangerous areas, and widely used in machining and other industries.

- 1oo2 architecture
- With detection of shorts across contacts
- With monitored manual reset function
- The safety function remains effective in the case of a component failure
- The correct opening and closing of the safety function relays is tested automatically in each on-off cycle

|                             |                                                                              |
|-----------------------------|------------------------------------------------------------------------------|
| Voltage range               | 24V DC                                                                       |
| Voltage tolerance           | 0.85 ~ 1.1                                                                   |
| Power dissipation           | ≤ 3.8W/24V DC                                                                |
| Current consumption         | ≤ 50mA/24V DC                                                                |
| Cable resistance            | ≤ 15Ω                                                                        |
| Input devices               | E-STOP button, Safety gate                                                   |
| Signal type                 | 2 NO, non-delay + 2 NO, d-delay                                              |
| Contact type                | Forced guided                                                                |
| Contact material            | AgSnO <sub>2</sub>                                                           |
| Contact loading             | AC-15: 3A/230V, DC-13: 3A/24V                                                |
| Contact fuse protection     | 10A gL/gG(NO)                                                                |
| Delay time T <sub>set</sub> | 0.1~80s, default 10s                                                         |
| Delay time accuracy         | ±15%                                                                         |
| Switch-on                   | ≤ 150ms                                                                      |
| Release                     | E-stop: ≤ 30ms; Power failure: ≤ 100ms                                       |
| Recovery time               | E-stop: ≤ 30ms, Power failure: ≤ 100ms                                       |
| Supply short interruption   | 20ms                                                                         |
| EMC                         | According to IEC/EN 60947, IEC 61326-3-1, IEC/EN 61000-6-2, IEC/EN 61000-6-4 |
| Rated insulation voltage    | 250V AC                                                                      |
| Rated impulse voltage       | 6000V(1.2/50us)                                                              |
| Dielectric strength         | 1500V AC, 1 min                                                              |
| Clearance and creepage      | According to IEC 60947-1                                                     |
| Vibration                   | 10Hz ~ 55Hz, 0.35mm                                                          |
| Overvoltage category        | III                                                                          |
| Pollution degree            | 2                                                                            |
| Protection type             | IP20                                                                         |
| Ambient temperature         | -20°C ~ +60°C                                                                |
| Storage temperature         | -40°C ~ +80°C                                                                |
| Operating altitude          | ≤2000m                                                                       |
| Mechanical life             | 10×10                                                                        |

### Functional Block Diagram

