

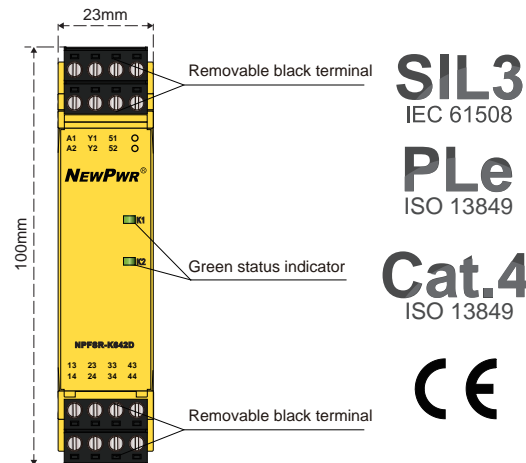
NPFSR-K642D

Input: Safety contact

Output: 4NO+2NC

The K series contact expansion can expand a group of safety contact signal into multiple safety contact signals, and widely used in machining and other industries.

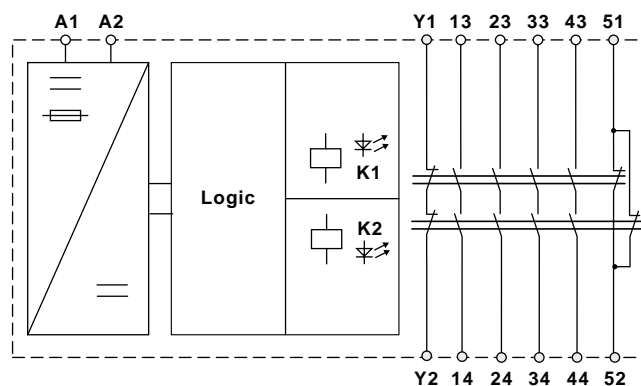
- Single channel
- With feedback loop
- The safety function remains effective in the case of a component failure



Parameters

Voltage range	24V DC
Voltage tolerance	0.85 ~ 1.1
Power dissipation	≤ 2W/24V DC
Current consumption	≤ 80mA/24V DC
Test pulse width	≤ 4ms
Cable resistance	≤ 15Ω
Input devices	Safety contact
Signal type	4NO+2NC
Contact type	Forced guided
Contact material	AgSnO ₂ +0.2μmAu
Contact loading	AC-15: 5A/230V, DC-13: 5A/24V
Contact fuse protection	10A gL/gG(NO), 6A gL/gG(NC)
Switch-on	≤ 30ms
Release	≤ 20ms
Recovery time	≤ 100ms
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 ⁶ cycles

Functional Block Diagram



Safety Values

Performance level	PLe, according to ISO 13849
Category	Cat.4, according to ISO 13849
PTI (T _M)	20 years, according to ISO 13849
DC _{avg}	99%, according to ISO 13849
MTTF _D	164 years, according to ISO 13849
CCF	68, according to ISO 13849
SIL	SIL3, according to IEC 61508
SIL CL	SIL CL3, according to IEC 62061
HFT	1, according to IEC 62061
SFF	≥ 99%, according to IEC 62061
PFD _{avg} /PTI = 20 years	2.03×10 ⁻⁶ , according to IEC 62061
PFH	2.31×10 ⁻⁹ /h, according to IEC 62061
Stop Category	0, according to IEC 60204