Safety relays - S² series

S2KR403

- Contact expansion device for safety relays S² series
- 4 delayed enabling current paths
- 2 signaling current paths
- 1 check-back current path
- For applications up to safety category 4
- Stop category 1
- Width 22.5mm
- Industrial design

Technical data

1. Functions

Contact expansion device with fixed delay time proper for all safety relays series S². Maximum safety category depends on selected base unit and wiring.

2. Indicators

Green LED R1 ON/OFF:	Safety channel 1 enabled
Green LED R2: ON/OFF	Safety channel 2 enabled

3. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-Rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Tightening torque: 0.5 to 0.6Nm
Terminal capacity:
- 2 x 0.14 to 0.75mm² without multicore cable end
- 1 x 0.14 to 2.5mm² without multicore cable end
- 2 x 0.25 to 0.5mm² flexible with multicore cable ends
- 1 x 0.25 to 2.5mm² flexible with multicore cable ends

4. Input circuit

Supply voltage:	
24V DC	terminals A1-A2
Tolerance:	
24V DC	-15% to +10%
Rated frequency:	50 to 60Hz
Rated consumption:	
24V DC	2.7VA (1.5W)
Duration of operation:	100%
Residual ripple:	2.4Vss

5. Output circuit

4 forced and delayed normally open contacts (enabling current paths)
2 forced and delayed normally closed contacts (signaling current paths)
1 forced and delayed normally open contact (check-back current path)

Delay time (OFF delay):	fixed 3s
Rated voltage:	230V AC/DC
Rated current of enabling paths:	max. 6A
Fusing:	gG 6A (MCB 6 B or C)
Rated current of signaling contacts:	max. 2A
Rated current of check-back contact:	max. 0.1A
Total current of all paths:	max. 12A
Mechanical life:	10 x 10⁶ operations

Switching capacity (in accordance with IEC 60947-5-1):

max. 60/min	(AC-15: 6A/230V AC)
max. 60/min	(DC-13: 3A/24V DC)
max. 6/min	(DC-13: 6A/24V DC)

Insulation voltage:	300V AC (in accordance with IEC 60664-1)
Surge voltage:	4kV
Overvoltage category:	III (in accordance with IEC 60664-1)
Response time t_A R1, R2:	20ms
Reset time t_R R1, R2:	40ms

6. Safety circuit

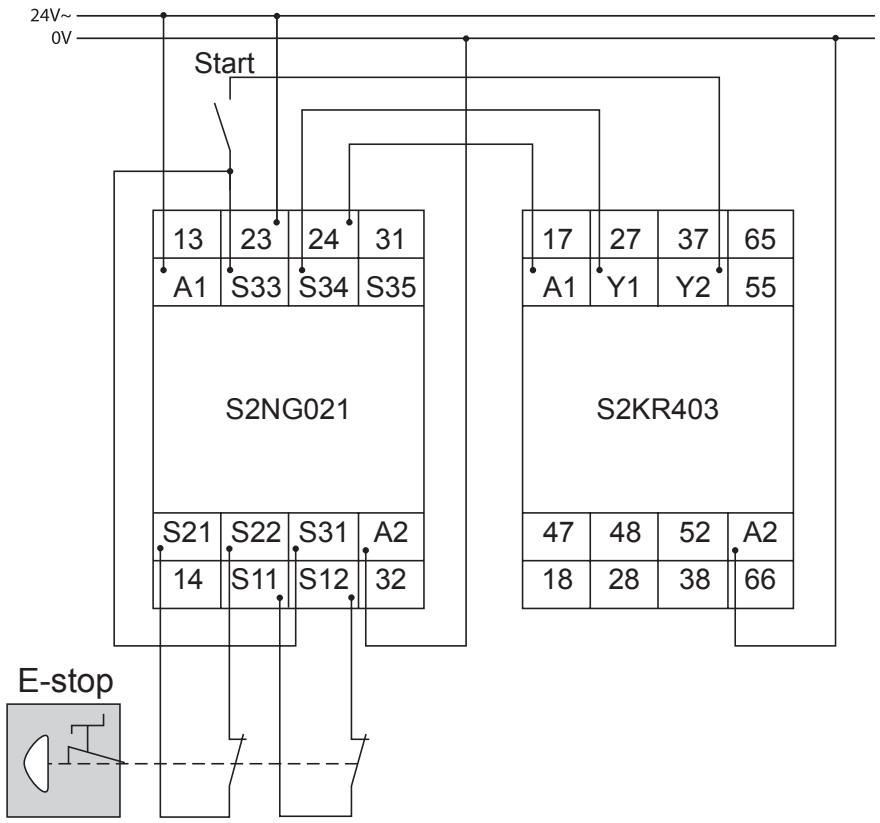
Function:	connection to base unit
Connection:	A1 and A2 via enabling path of base unit to power supply resp. GND
Safety channel 1:	A1-24V DC
Safety channel 2:	A2-GND (for safety category 4)
Cross monitoring:	-
Galvanic separation to power supply:	No

7. Ambient conditions

Ambient temperature:	-25 to +55°C (in accordance with IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative Humidity:	83% (bei 23°C), 93% (bei 40°C) in accordance with DIN 50016
Pollution degree:	3 outside, 2 inside (in accordance with IEC 60664-1)

Connections

S2KR403 connected to S2NG021



Dimensions

internal circuitry