

# SNV 4074SL / SNV 4076SL

MONITORING OF EMERGENCY STOP, SAFETY GATES AND LIGHT BARRIERS, OFF-DELAYED



## APPLICATIONS

- Controlled stop according to Category 1 (EN 60204-1)
- Monitoring of emergency stop applications
- Monitoring of safety gates
- Monitoring of interlocks
- Monitoring of light barriers
- Up to PL e / Category 4 (EN ISO 13849-1)
- Up to SIL<sub>CL</sub> 3 (EN 62061)

## FEATURES

- Stop Category 0/1 according to EN 60204-1
- Time setting in 10 steps
- Time ranges 3s, 30s or 300s
- Single-channel or two-channel control
- Manual or automatic start
- SafeStart
- Cross monitoring

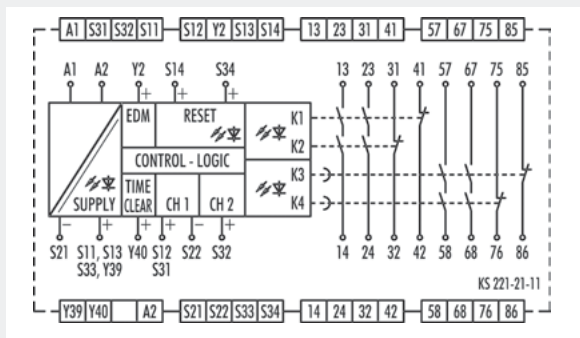
## OFF-DELAY FUNCTION

After the supply voltage is applied to terminals A1/A2 and the safety inputs are closed, the enabling current paths (NO contacts) are closed automatically or by pressing the reset button (manual start). When the safety inputs are opened/de-energized the enabling current paths (NO contacts) are opened immediately or with a delay.

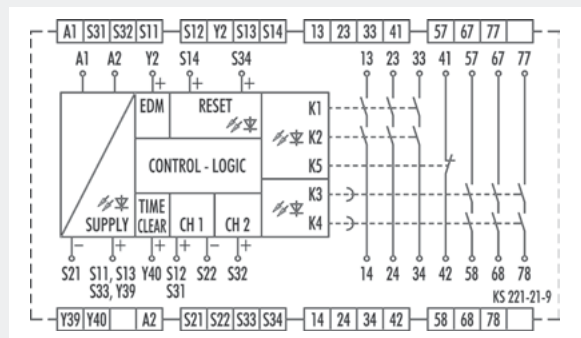
- **Automatic start** – Reset input S14 is connected to safety input S12. To monitor external contact blocks (EDM), their NC contacts must be connected in series between S34 and S12.
- **Manual start without monitoring** – Reset input S14 is connected to safety input S12 via a reset button. To monitor external contact blocks (EDM), their NC contacts must be connected in series to the reset button.
- **Manual start with monitoring** – Reset input S34 is connected to safety input S11 via a reset button. To monitor external contact blocks (EDM), their NC contacts must be connected in series to the reset button.

## CIRCUIT DIAGRAMS

SNV 4074SL



SNV 4076SL





## OVERVIEW OF DEVICES | PART NUMBERS

Type	Time range	Rated voltage		Terminals	Part no. 24V DC	Part no. 115 – 230V AC	P.U.
SNV 4074SL-A	3s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2130.0	R1.188.2310.0	1
SNV 4074SL-A	30s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2160.0	R1.188.2340.0	1
SNV 4074SL-A	300s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2190.0	R1.188.2370.0	1
SNV 4074SL-C	3s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2140.0	R1.188.2320.0	1
SNV 4074SL-C	30s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2170.0	R1.188.2350.0	1
SNV 4074SL-C	300s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2200.0	R1.188.2380.0	1
SNV 4076SL-A	3s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2040.0	R1.188.2220.0	1
SNV 4076SL-A	30s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2070.0	R1.188.2250.0	1
SNV 4076SL-A	300s	24V DC	115 – 230V AC	Screw terminals, pluggable	R1.188.2100.0	R1.188.2280.0	1
SNV 4076SL-C	3s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2050.0	R1.188.2230.0	1
SNV 4076SL-C	30s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2080.0	R1.188.2260.0	1
SNV 4076SL-C	300s	24V DC	115 – 230V AC	Push-in terminals, pluggable	R1.188.2110.0	R1.188.2290.0	1

### TECHNICAL DATA

Function	Emergency stop relay		
Function display	5 LEDs, green/red		
Function mode / adjustment	Time setting in 10 steps		
Adjustment range	0.1 - 3 s / 0 - 30 s / 0 - 300 s		
<b>Power supply circuit</b>			
Rated voltage $U_N$	A1, A2	24 V DC / 115-230 V AC	
Rated consumption	24 V DC   115-230 V AC	2.8 W   3.2 W / 6,3 VA	
Rated frequency	50 - 60 Hz		
Operating voltage range $U_B$	0.85 - 1.1 x $U_N$		
Electrical isolation supply circuit - control circuit	yes (at $U_N$ = AC 115-230 V)		
<b>Control circuit</b>			
Rated output voltage	S11, S13, S33, Y39 / S21	22 V DC	
Input current / peak current	S12, S31/S22, S32	3 mA / 4.5 mA	
	S14, S34, Y2, Y40	4 mA / 4.5 mA	
Response time $t_{A1}$ / $t_{A2}$	200 ms		
Minimum ON time $t_M$	100 ms		
Recovery time $t_W$	50 ms		
Release time $t_R$	20 ms		
Release time $t^R$ , delayed contacts (tolerance)	0.1 / 0.2 / 0.3 / 0.4 / 0.5 / 0.8 / 1 / 1.5 / 2 / 3 s (0.1 % ± 15 ms) 0 / 2 / 4 / 6 / 0.5 / 8 / 10 / 15 / 20 / 30 s (0.1 % ± 15 ms) 0 / 20 / 40 / 60 / 80 / 100 / 150 / 200 / 250 / 300 s (0.1 % ± 15 ms)		
Permissible test pulse time $t_{TP}$	< 1 ms		
Max. resistivity, per channel <sup>1)</sup>	24 V DC   115-230 V AC	< 50 Ω   < 50 Ω	
<b>Output circuit</b>			
Enabling paths	13/14, 23/24, 33/34 57/58, 57/68, 77/78	normally open contact normally open contact, OFF-delayed	
Signaling paths	31/32, 41/42   75/76, 85/86	normally closed contact   normally closed contact, OFF-delayed	
Contact assignment	forcefully guided		
Contact type	Ag-alloy, gold-plated		
Rated switching voltage	enabling- / signaling path	230 V AC	
Max. thermal current $I_{th}$	enabling- / signaling path	6 A / 2 A	
Max. total current $I^2$ of all current path ( $T_u = 55$ °C)	40 A <sup>2</sup>		
Application category (NO)	AC-15   DC-13	$U_e$ 230 V, $I_e$ 3 A   $U_e$ 24 V, $I_e$ 3 A	
Short-circuit protection (NO), lead fuse / circuit breaker	6 A class gG / melting integral < 100 A <sup>2</sup> s		
Mechanical life	10 <sup>7</sup> switching cycles		
<b>General data</b>			
Creepage distances and clearances between the circuits	EN 60664-1		
Protection degree according to EN 60529 (housing / terminals)	IP40 / IP20		
Ambient temperature / storage temperature	-25 °C - +55 °C / -25 °C - +75 °C		
Wire ranges screw terminals,	fine-stranded / solid	1 x 0.2 mm <sup>2</sup> – 2.5 mm <sup>2</sup> / 2 x 0.2 mm <sup>2</sup> – 1.0 mm <sup>2</sup>	
	fine-stranded with ferrules	1 x 0.25 mm <sup>2</sup> – 2.5 mm <sup>2</sup> / 2 x 0.25 mm <sup>2</sup> – 1.0 mm <sup>2</sup>	
Permissible torque	0.5 - 0.6 Nm		
Wire ranges push-in terminals	1 x 0.25 mm <sup>2</sup> – 1.5 mm <sup>2</sup>		
Weight	0.33 kg / 0.35 kg		
Standards	EN ISO 13849-1, EN 62061, EN 50156-1		
Approvals	TÜV, GL, cULus, CCC		

<sup>1)</sup> If two-channel devices are installed as single channel, the value is halved.