


Safety switching device

Controlled stop SNV 2020

safety

Technical data		SNV 2020				
Function according to EN 60204-1		Emergency stop relay				
Function display		5 LEDs green				
Function diagram		FD 0369 W1				
Power supply circuit						
Rated voltage U_N	AC/DC	24 V				
Rated consumption at 50 Hz and U_N (AC)		11 VA				
Rated consumption at 50 Hz and U_N (AC)		5.8 W				
Rated consumption at U_N (DC)		4.8 W				
Rated frequency		50 – 60 Hz				
Residual ripple		2.4 V _{ss}				
Operating voltage range		0.8 – 1.1 x U_N				
Control circuit only for supplying the control inputs						
Electrical isolation between A1, A2 and S11, S33		no				
Line resistance (control inputs)		≤ 70 Ω				
Rated output voltage		DC 24 V				
Nominal current		90 mA				
Short-circuit current I_K max.		6000 mA				
Fuse		PTC thermistor				
Response time / recovery time		3 s/3 s				
Control inputs Y1/S34, Y2, S12, S22:						
Rated current input	Y2, S12, S22	45 mA				
Response time t_A	K1, K2, K3, K4, K5	25 ms				
Release time t_{r1} switch-on cycle	K1	80 ms				
Release time t_{r2} at emergency stop	K2, K3	8 ms				
Release time t_{r3} at emergency stop	K4, K5 (unbuffered)	Setting range 3 s: limit range adjustable in 12 increments 0, 0.1, 0.2, 0.3, 0.4, 0.6, 0.8, 1, 1.5, 2, 2.5, 3 s ± 10 % Setting range 30 s: limit range adjustable in 12 increments 0, 1, 2, 3, 4, 6, 8, 10, 15, 20, 25, 30 s ± 10 %				
Release time t_{r3} at emergency stop	K4, K5 with t = 0 s	20 ms				
Minimum ON time t_M for	Y2	25 ms				
Output circuit						
Contact assignment		3 enabling current paths (NO contacts), stop/safety category 0/4 1 enabling current path, OFF-delayed (NO contact), stop/safety category 1/3 1 signaling current path (NC contact)				
Contact type		positively driven				
Contact material		Ag alloy, gold-plated				
Rated operating voltage U_n		AC/DC 230 V				
Max. continuous current I_n per contact		6 A				
Max. total current of all current paths		18 A				
Application category according to EN 60947-5-1		AC-15: U_b 230 V AC, I_b 4 A DC-13: U_b 24 V DC, I_b 6 A				
Short-circuit protection, max. fuse insert		6 A class gG or circuit breaker with trigger characteristic B or C				
Permissible switching frequency		≤ 3600 switching cycles/h				
Mechanical life		30 x 10 ⁶ switching cycles				
General data						
Creepage distances and clearances between the circuits		according to EN 60664-1				
Rated impulse voltage		4 kV				
Overvoltage category		III				
Degree of pollution		3 outside, 2 inside				
Rated voltage		AC 300 V				
Test voltage U_{eff} 50 Hz		2 kV				
Protection degree according to DIN EN 60529 (housing / terminals)		IP 40/IP 20				
Ambient temperature, operating range		-25 – +55 °C				
Dimension diagram		S 4-6				
Rated cross sections fine-stranded/solid or fine-stranded with ferrules		1 or 2x0.75 – 1.5 mm ² /1 oder 2x0.75 – 2.5 mm ² 1 or 2x0.5 – 2.5 mm ²				
Permissible tightening torque		0.8 – 1 Nm				
Weight		0.57 kg				
Accessories		Cover Z 29				
Approvals						
Overview of the devices/Part numbers						
Type	OFF-delay	Rated voltage	Terminals	Part No.	Std. Pack	
SNV 2020	3 s	AC/DC 24 V	50 – 60 Hz	Terminal block, rising cage termination	R1.188.0180.0	1
	30 s	AC/DC 24 V	50 – 60 Hz	Terminal block, rising cage termination	R1.188.0050.0	1