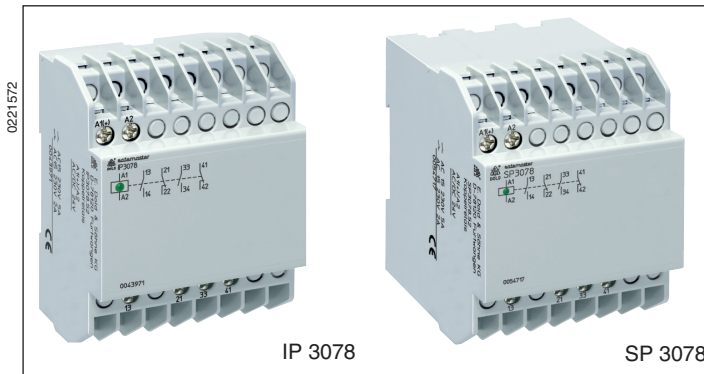
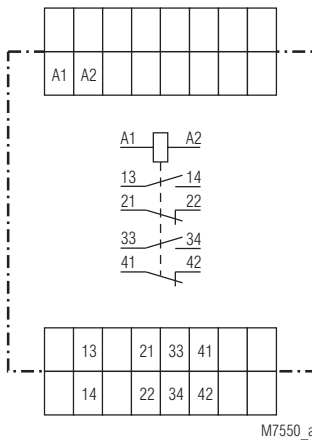


SAFEMASTER Interface Module IP 3078, SP 3078



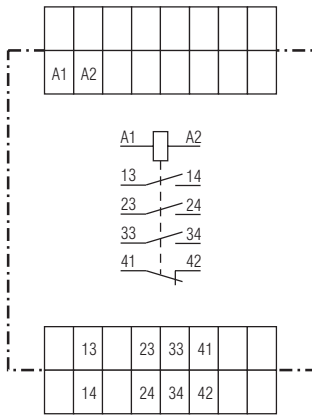
- According to IEC/EN 60 947-5-1, IEC/EN 61 810-1
- Forcibly guided contacts according to IEC 61810-3
- Max. 6 output contacts
- High thermal current $I_{th} = 8 \text{ A}$
- LED for operating state
- Devices available in 2 enclosure versions:
 - IP 3078: depth 61 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SP 3078: depth 100 mm, with terminals at the top
- Width 70 mm

Circuit Diagrams



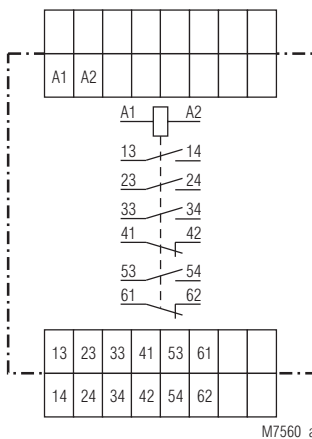
M7550_a

IP 3078.52, SP 3078.52



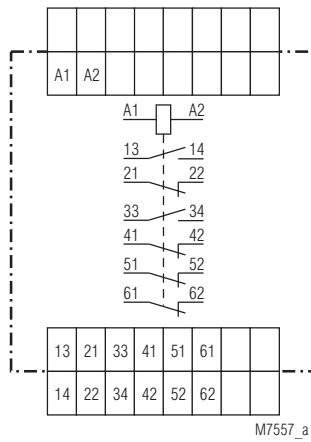
M7554_a

IP 3078.48, SP 3078.48



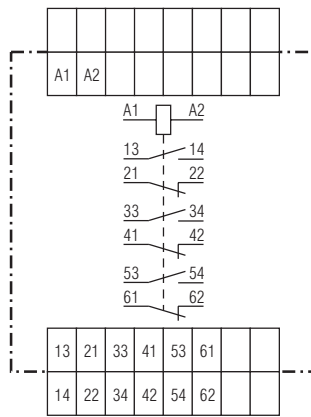
M7560_a

IP 3078.54, SP 3078.54



M7557_a

IP 3078.50, SP 3078.50



M7545_a

IP 3078.18, SP 3078.18

Approvals and Markings



Indicators

green LED: on, when supply connected

Connection Terminals

Terminal designation	Signal designation
A1	+ / L
A2	- / N
13, 14; 23, 24; 33, 34; 53, 54	Forcibly guided NO contacts for release circuit
21, 22; 41, 42; 51, 52; 61, 62	Forcibly guided NC contacts for release circuit

Technical Data

Input

Nominal voltage U_N : AC/DC 24 V
AC 220 ... 240 V

Voltage range: 0.8 ... 1.1 U_N

Nominal consumption:
IP 3078.52, SP 3078.52: 1 W / 2 VA
IP 3078.18, SP 3078.18: 1.5 W / 4 VA

Nominal frequency: 50 / 60 Hz

Frequency range: $\pm 5 \%$ of nominal frequency

Output

Contacts

IP 3078.52, SP 3078.52: 2 NO and 2 NC contacts
IP 3078.50, SP 3078.50: 2 NO and 4 NC contacts
IP 3078.48, SP 3078.48: 3 NO and 1 NC contacts
IP 3078.18, SP 3078.18: 3 NO and 3 NC contacts
IP 3078.54, SP 3078.54: 4 NO and 2 NC contacts

Response time: typ. 25 ms
Release time: typ. 20 ms
Contact type: Spring contact
Nominal output voltage: min. AC/DC 10 V
max. DC 250 V, AC 230 / 400 V

Thermal current I_{th} : 8 A
(see continuous current limit curve)

Switching capacity

to AC 15:
NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1
NC contact: 2 A / AC 230 V IEC/EN 60 947-5-1

Electrical life IEC/EN 60 947-5-1
to AC 15 at 2 A, AC 230 V: 2.5 x 10⁵ switching cycles

Permissible switching frequency: max. 36 000 switching cycles / h

Mechanical life: $\geq 30 \times 10^6$ switching cycles

Technical Data

General Data

Operating mode:	Continuous operation	
Temperature range:		
Operation:	- 20 ... + 60 °C	
Storage:	- 20 ... + 60 °C	
Altitude:	< 2,000 m	
Clearance and creepage distances		
rated impulse voltage / pollution degree:	4 kV / 2	IEC 60 664-1
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation		
80 MHz ... 6,0 GHz:	20 V / m	IEC/EN 61 000-4-3
Fast transients:	4 kV	IEC/EN 61 000-4-4
Surge voltages between		
wires for power supply:	2 kV	IEC/EN 61 000-4-5
between wire and ground:	4 kV	IEC/EN 61 000-4-5
HF-wire guided:	20 V	IEC/EN 61 000-4-6
Interference suppression:	Limit value class B EN 55011	
Degree of protection		
Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529
Housing:	Thermoplastic with V0 behaviour according to UL subject 94	
Vibration resistance:	Amplitude 0.35 mm IEC/EN 60 068-2-6 frequency 10 ... 55 Hz	
Climate resistance:	20 / 060 / 04	IEC/EN 60 068-1
Terminal designation:	EN 50 005	
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded ferruled DIN 46 228-1/-2/-3/-4	
Wire fixing:	Captive terminal screw M3.5 clamping piece as per IEC 60 664-1 / IEC/EN 60 999-1	
Fixing torque:	0.8 Nm	
Mounting:	DIN rail	IEC/EN 60 715
Weight		
IP 3078:	225 g	
SP 3078:	274 g	

Dimensions

Width x height x depth

IP 3078:	70 x 90 x 61 mm
SP 3078:	70 x 90 x 100 mm

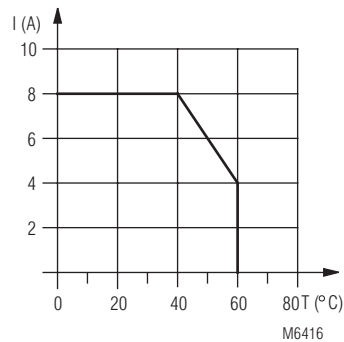
Standard Type

IP 3078.52 AC/DC 24 V	
Article number:	0043971
• Output:	2 NO, 2 NC contacts
• Nominal voltage U _N :	AC/DC 24 V
• Width:	70 mm
IP 3078.52 AC/DC 24 V	
Article number:	0054717
• Output:	2 NO, 2 NC contacts
• Nominal voltage U _N :	AC/DC 24 V
• Width:	70 mm

Ordering Example

IP 3078	.52	AC/DC 24 V	50 / 60 Hz	
				Nominal frequency
				Nominal voltage
				Contacts
				Type

Characteristic



Continuous current limit curve