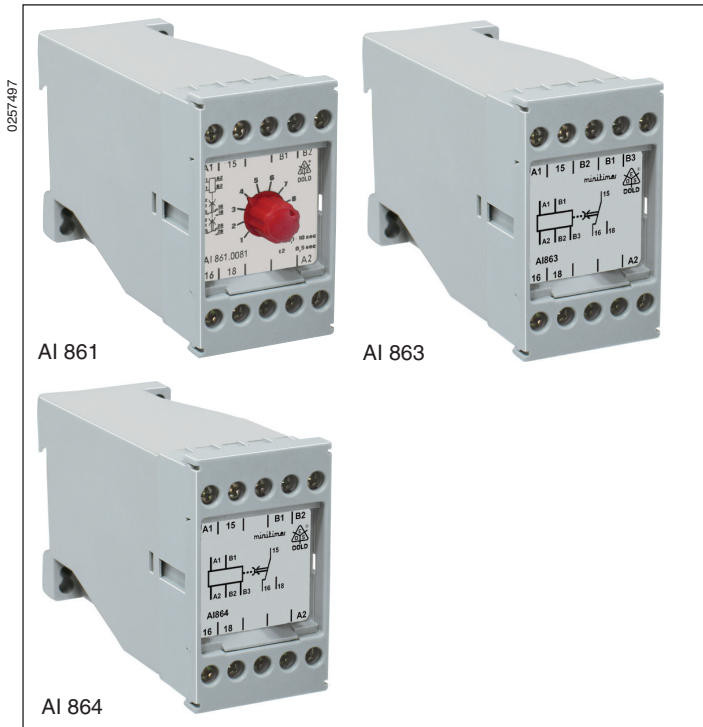


Contact Safety Device AI 861, AI 863, AI 864



- According to IEC/EN 60 255, IEC/EN 61 810-1
- galvanic separation between control contact and supply voltage
- AI 861 on delay, adjustable
- AI 864 on delay, fixed
- As option with 1- or 2-point-switching
- Width: 45 mm

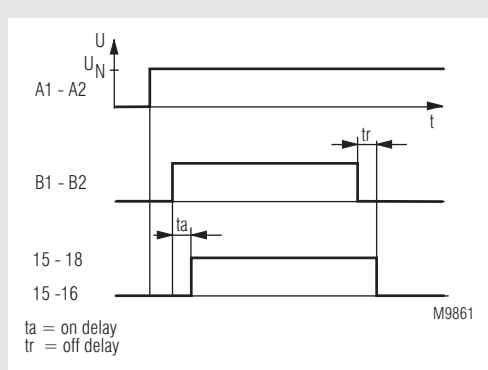
Approval and Marking



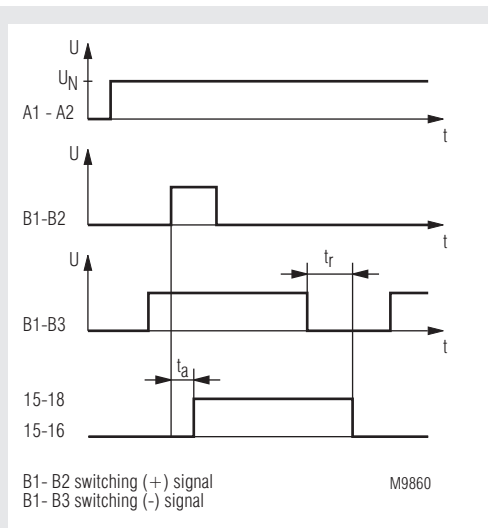
Application

For protection of sensitive contacts e. g. limit value switches to measuring instruments such as thermometers, manometers and hygrometers.

Function Diagrams

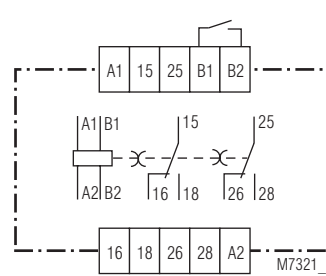


AI 861, AI 864

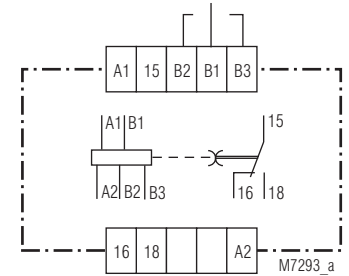


AI 863

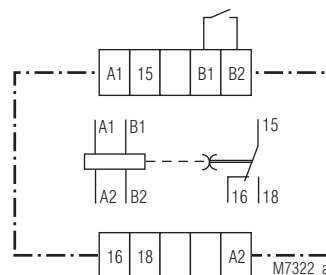
Circuit Diagrams



AI 861.82



AI 863.81



AI 864

Technical Data	
Input	
Nominal voltage U_N:	AC 24, 42, 110, 127*, 230, 240 V * only for AI 861 and AI 863
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	< 3 VA
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 %
Current over control contact	
contact open:	< DC 20 V
contact close	
AI 861:	0.5 mA
AI 863:	0.5 mA
AI 864:	0.85 mA
Max. resistance of control wire	
AI 861, AI 863:	25 k Ω
AI 864:	10 k Ω
Min. insulating resistance:	1 M Ω
Recovery time	
AI 861:	1.2 s
Repeat accuracy	
AI 861:	< ± 1 % scale value

Output

Contacts	
AI 861.81, AI 863.81, AI 864:	1 changeover contact
AI 861.82:	2 changeover contact
Operating time	
AI 861:	0.1 ... 10 s
AI 863:	30 ms
AI 864:	100 ms
Release time	
AI 861:	≤ 800 ms
AI 863:	≤ 120 ms
AI 864:	≤ 350 ms
Thermal current I_{th}:	4 A
Switching capacity	
according to AC 15:	3 A / AC 230 V IEC/EN 60 947-5-1
Electrical life	
acc. to AC 15 at 3 A, AC 230 V	IEC/EN 60 947-5-1
1 C/O contact:	2.5 x 10 ⁵ switching cycles
2 C/O contact:	0.5 x 10 ⁵ switching cycles
Permissible switching frequency:	
	1 500 switching cycles / h
Mechanical life:	
	30 x 10 ⁶ switching cycles

General Data

Operating mode:	Continuous operation	
Temperature range:	- 20 ... + 60°C	
Clearance and creepage distances		
rated impuls voltage / pollution degree:	4 kV / 2	IEC 60 664-1
EMC		
Statische Entladung (ESD):	8 kV (Luftentladung)	IEC/EN 61 000-4-2
Fast transients:	2 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
Interference suppression:	Limit value class B	EN 55 011
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, frequency 10...55Hz IEC/EN 60 068-2-6	
Climate resistance:		
	20 / 060 / 04	IEC/EN 60 068-1

Technical Data	
Terminal designation:	EN 50 005
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded wire with sleeve DIN 46 228-1/-2/-3/-4
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1
Mounting:	DIN rail IEC/EN 60 715
Weight:	220 g

Dimensions

Width x height x depth:	45 x 77 x 127 mm
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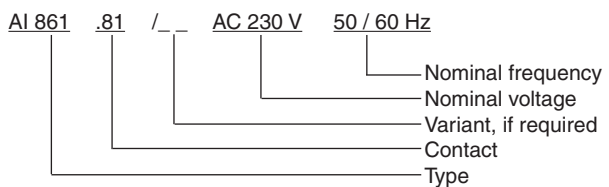
Standard Type

AI 861.82 AC 230 V 50/60 Hz	
Article number:	0000942
• Output:	2 changeover contacts
• Nominal voltage U_N :	AC 230 V
• Width:	45 mm

Variants

AI 861.81/03:	Release delay 1 s
AI 864.006:	1 changeover contact, with LED-indication

Ordering example for variants



Accessories

K 70-34:	Cover Article number: 0011790
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