

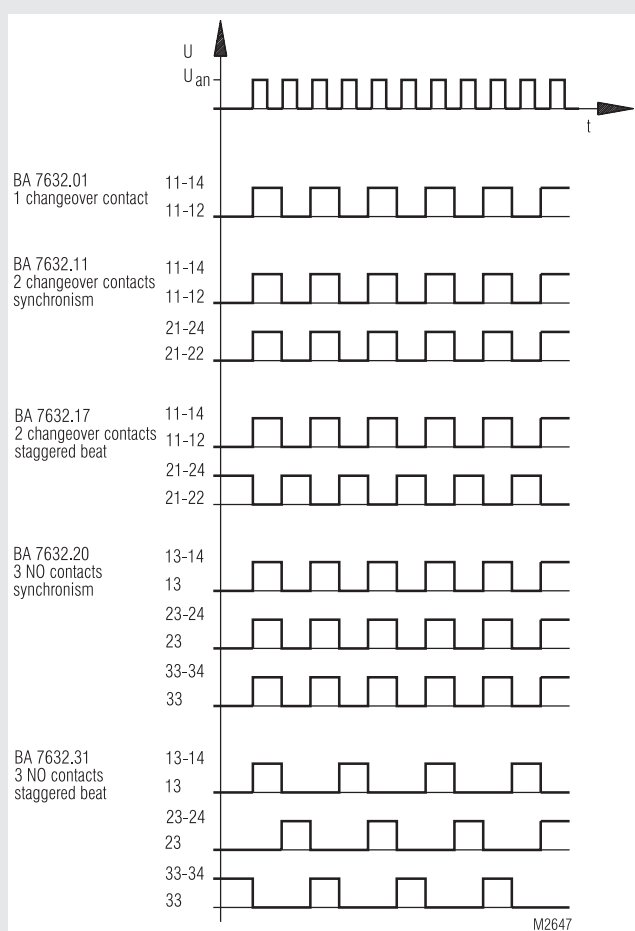
Stepping Relay BA 7632

Translation
of the original instructions



- According to IEC/EN 61810-1
- High switching capacity of contacts
- High switching safety
- Impulse operation
- Bistable switching behaviour
- Width 45 mm

Function Diagram



Approvals and Markings



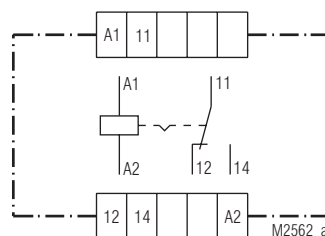
Applications

For cyclic control processes

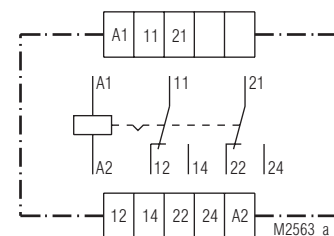
Function

With an impulse of the control voltage to the terminals A1-A2, a symmetric rotation tongue-magnetic system will be actuated, which switches the cam wheels of the contact links further on step. The sequence of the contact actuation effects according to the desired switching program.

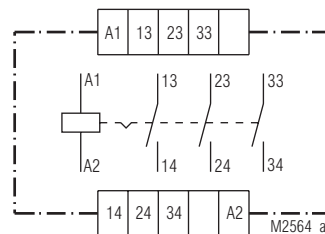
Circuit Diagrams



BA 7632.01



BA 7632.11; BA 7632.17;
BA 7632.19



BA 7632.20; BA 7632.31

Connection Terminals

Terminal designation	Signal description
A1(+)	L / +
A2(-)	N / -
11, 12, 14	1. changover contact
21, 22, 24	2. changover contact
13, 14, 23, 24, 33,34	NO contacts

Technical Data

Standard - switching programs

For 1 changeover contact	Contact 1		
Program .01:	E-A etc.		
For 2 changeover contacts	Contact 1	Contact 2	
Program .11:	E-A etc.	E-A etc.	
Program .17:	E-A etc.	A-E etc.	
Program .19:	E-A etc.	A-E-E-A etc.	
For 3 NO contacts	Contact 1	Contact 2	Contact 3
Program .20:	E-A etc.	E-A etc.	E-A etc.
Program .31:	E-A-A etc.	A-E-A etc.	A-A-E etc.
	Other switching program on request		
	A = contact in initial position		
	E = contact in switching position		

Input

Nominal voltage U_N:	AC 24, 42, 110, 127, 230, 240 V DC 24 V
Voltage range:	0.8 ... 1.1 U_N
Min. transition time:	≥ 100 ms
Min. break time:	≥ 200 ms
Nominal consumption:	AC 14 VA / 7 W
Nominal frequency:	50 / 60 Hz

Output

Operate time of contacts:	< 90 ms
Release time of contacts:	< 180 ms
Nominal breaking capacity:	AC 24 V AC 110 V AC 230 V AC 380 V
cos ϕ 1 ... 0.7:	6 A 6 A 4 A 3 A
cos ϕ 0.4:	4 A 4 A 3 A 2 A
	DC 24 V DC 60 V DC 110 V DC 220 V
Resistive:	1.5 A 0.8 A 0.4 A 0.2 A
Inductive:	0.8 A 0.3 A 0.2 A 0.12 A
Thermal current I_{th}:	10 A
Short circuit strength	10 A gG / gL
max. fuse rating:	1 x 10 ⁶ switching cycles, 3 000 switches / h at 50 % of the switching capacity
Electrical life:	0,5 x 10 ⁶ switching cycles, 1 500 switches / h at 100 % of the switching capacity
Mechanical life:	> 5 x 10 ⁶ switching cycles
Permissible switching frequency:	3 000 switching cycles / h

General Data

Operating mode:	Continuous operation
Temperature range:	
Operation:	- 20 ... + 70 °C at 40 % ED (cycle duration 250 s) - 20 ... + 60 °C at 60 % ED (cycle duration 160 s) - 20 ... + 45 °C at DB
Storage:	- 40 ... + 70 °C
Altitude:	< 2000 m
Clearance and creepage distances	
Rated impulse voltage / pollution degree:	4 kV / 2 IEC 60664-1
EMC	
Electrostatic discharge:	6 kV (air) IEC/EN 61000-4-2
HF-irradiation:	
80 MHz ... 6.0 GHz:	10 V / m IEC/EN 61000-4-3
Fast transients:	2 kV IEC/EN 61000-4-4
Surge voltages between	
Wires for power supply:	2 kV IEC/EN 61000-4-5
Between wire and ground:	4 kV IEC/EN 61000-4-5
HF-wire guided:	10 V IEC/EN 61000-4-6
Interference suppression:	Limit value class B EN 55011
Degree of protection	
Housing:	IP 40 IEC/EN 60529
Terminals:	IP 20 IEC/EN 60529

Technical Data

Housing:	Thermoplast PC ISO 1043-1 with V0-behaviour to UL subject 94
Vibration resistance:	Amplitude 0.35 mm, frequency 10...55Hz, IEC/EN 60068-2-6
Climate resistance:	Humid heat IEC/EN 60068-2-30 24-hours-rhythm: 40°C, 92 % relative air humidity and 23°C, 83 % relative air humidity
Terminal designation:	EN 60947-1
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded wire with sleeve DIN 46228-1/-2/-3/-4
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60999-1
Mounting:	DIN rail IEC/EN 60715
Weight:	450 g

Dimensions

Width x height x depth:	45 x 74 x 121 mm
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Standard Type

BA 7632.31 AC 230 V 50/60 Hz	
Article number:	0028206
• Output:	3 NO contacts
• Nominal voltage U_N :	AC 230 V
• Width:	45 mm

Ordering Example

BA 7632	.11	AC 230 V	50 / 60 Hz	
				Nominal frequency
				Nominal voltage
				Contact sequence
				Type