

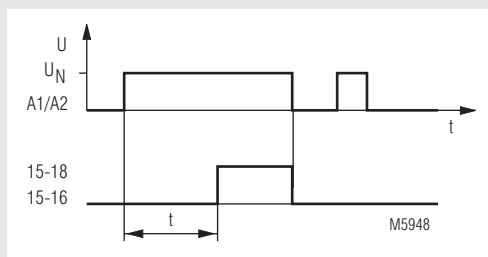
MINITIMER

Time Delay Relay, Operate Delay Type IK 7825



- According to IEC/EN 61 812-1
- Delay of 0.05 s ... 60 min.
- Repeat accuracy $\leq 0.5\% + 10\text{ ms}$
- Pushbutton for manual actuation of the contact
- 1 or 2 changeover contacts for 16 A
- Width 17.5 mm

Function Diagram



Approvals and Marking



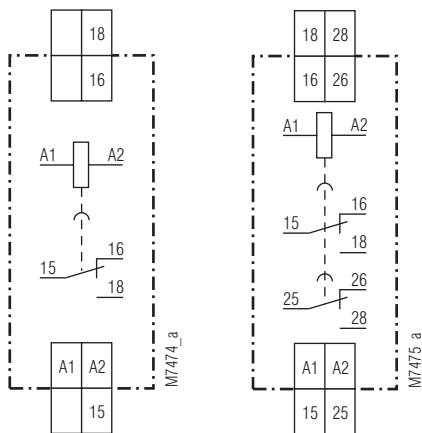
Applications

- Time-dependent controllers

Indicators

Push button: pressed, when relay energized

Circuit Diagrams



IK 7825.81

IK 7825.82

Technical Data

Time ranges:	0.05 ... 1 s
	0.5 ... 10 s
	5 ... 100 s
	0.5 ... 10 min.
	1.5 ... 30 min.
	3 ... 60 min.
Tolerance of end value:	- 5 ... + 25 % of nominal value
Time setting:	steppless, 1:20 on relative scale
Recovery time:	approx. 60 ms (after time run-down)
	approx. 700 ms (during time run-down)
Repeat accuracy:	$< \pm 0.5\% + 10\text{ ms}$
Voltage influence:	$< 1\%$ over voltage range
Temperature influence:	$< 0.1\% / K$

Input

Nominal voltage U_N:	AC 24, 127, 230 V
	DC 24 V
Voltage range:	90 ... 110 % U_N
Nominal consumption	
AC:	2.3 VA
DC:	1.5 W
Nominal frequency:	50 Hz
Frequency range:	$\pm 5\%$

Output

Contacts	
IK 7825.81:	1 changeover contact delayed
IK 7825.82:	2 changeover contacts delayed
Release time of the contacts:	$< 30\text{ ms}$
Thermal current I_{th}:	16 A
Electrical life	at 500 switching cycles / h
under ohmic load AC 230 V:	6 A 150 x 10 ⁴ switching cycles
	10 A 72 x 10 ⁴ switching cycles
	16 A 12 x 10 ⁴ switching cycles
Inductive load cos. φ 0.6:	10 A 10 x 10 ⁴ switching cycles
Direct current load:	see limti curve for arc-free operation
Short circuit strength	
max. fuse rating:	16 A gL
Mechanical life:	$> 3 \times 10^6$ switching cycles

Technical Data

General Data

Operating mode:	Continuous operation	
Temperature range:	- 20 ... + 45 °C	
Clearance and creepage distances		
rated impuls voltage / pollution degree:	4 kV / 3	IEC 60 664-1
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation:	10 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
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 ... 55 Hz IEC/EN 60 068-2-6	
Climate resistance:	20 / 045 / 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:	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1	
Mounting:	DIN rail IEC/EN 60 715	
Weight:	100 g	

Dimensions

Width x height x depth: 17.5 x 89 x 58 mm

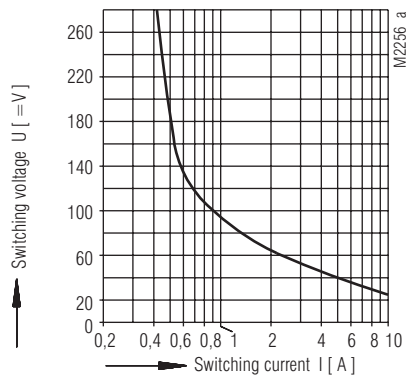
Standard Type

IK 7825.81	AC 230 V	50 Hz	5 ... 100 s	
Article number:	0043326			stock item
• Output:	1 changeover contact delayed			
• Nominal voltage U_N :	AC 230 V			
• Time range:	5 ... 100 s			
• Width:	17.5 mm			

Ordering Example

IK 7825	.81	AC 230 V	50 Hz	1 s	
					Time range limit value
					Nominal frequency
					Nominal voltage
					Contact
					Type

Characteristics



safe braking, no continuous arcing
max. 1000 switching cycles / h
contact spacing min. 0,6mm

Limit curve for arc-free operation