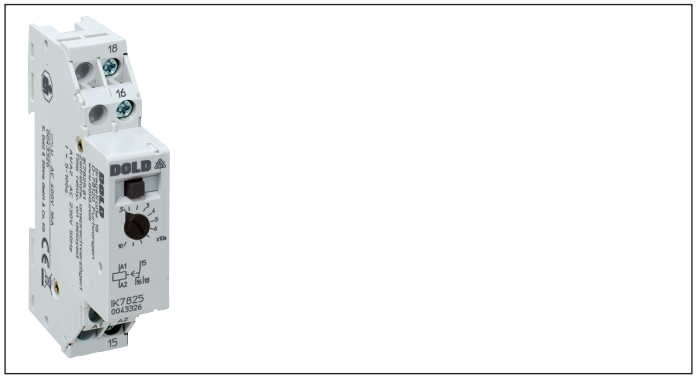
MINITIMER
Timer, On-delay
IK 7825

Translation of the original instructions

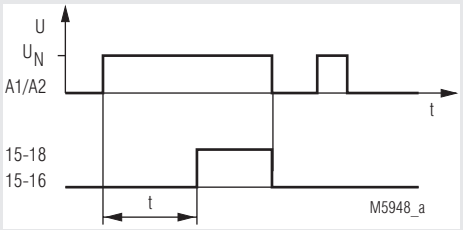
DOLD

0221566

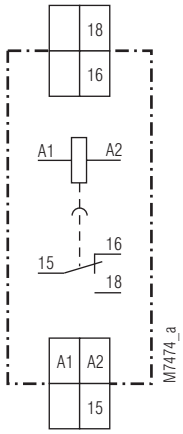


- Power ON-delay relay according to EN 61812-1
- Delay of 0.05 s ... 60 min.
- Repeat accuracy ≤ 0.5 % + 10 ms
- Pushbutton for manual actuation of the contact
- 1 or 2 changeover contacts for 16 A
- Width 17.5 mm

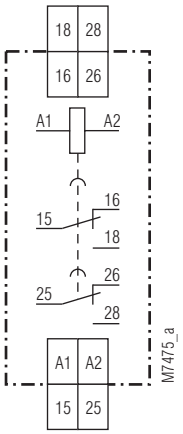
Function Diagram



Circuit Diagrams



IK 7825.81



IK 7825.82

Approvals and Markings

CE

Applications

- Time-dependent controllers

Indicators

Push button: Pressed, when relay energized

Notes

A change of time setting is accepted directly.
If during elaps of time the time setting is changed, the output relay may switch unintentionally!

Connection Terminals

Terminal designation	Signal description
A1	L / +
A2	N / -
15, 16, 18; 25, 26, 28	Changeover contacts

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:	< ± 0.5 % + 10 ms	
Voltage influence:	< 1 % over voltage range	
Temperature influence:	< 0.1 % / K	

Input

Nominal voltage U_N:	AC 24, 42, 48, 110, 230 V
	DC 24 V
Voltage range:	90 ... 110 % U_N
Release voltage:	15 % U_N
Nominal consumption	
AC:	2.3 VA
DC:	1.5 W
Nominal frequency:	50, 60 Hz
Frequency range:	± 5 %

Output

Contacts		
IK 7825.81:	1 changeover contact delayed	
IK 7825.82:	2 changeover contacts delayed	
Contact material:	$AgSnO_2$	
Measured nominal voltage:	AC 250 V	
Release time of the contacts:	< 30 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 arc limit curve	
Permissible switching frequency:	1000 switching cycles / h	
Short circuit strength		
Max. fuse rating:	16 A gG / gL	IEC/EN 60947-5-1
Mechanical life:	> 3 x 10^6 switching cycles	

General Data

Operating mode:	Continuous operation	
Temperature range		
Operation:	- 20 ... + 45 °C	
Storage:	- 25 ... + 70 °C	
Relative Luftfeuchte:	95 % at 40 °C	
Betriebshöhe:	≤ 2000 m	
Clearance and creepage distances		
Rated impulse voltage / pollution degree:	4 kV / 2 (basis insulation)	IEC 60664-1
Overvoltage category:	III	
Insulation test voltage, type test:	2,5 kV; 1 min	
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61000-4-2
HF irradiation 80 MHz ... 2.7 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:	1 kV	IEC/EN 61000-4-5
Between wire and ground:	2 kV	IEC/EN 61000-4-5
HF-wire guided:	10 V	IEC/EN 61000-4-6
Interference suppression:	Limit value class B	EN 55011

Technical Data

Degree of protection		
Housing:	IP 40	IEC/EN 60529
Terminals:	IP 20	IEC/EN 60529
Housing:	Thermplastic with V0 behaviour according to UL subject 94	
Vibration resistance:	Amplitude 0.35 mm, frequency 10 ... 55 Hz	IEC/EN 60068-2-6
Climate resistance:	20 / 045 / 04	IEC/EN 60068-1
Terminal designation:	EN 50005	
Wire connection:	DIN 46228-1/-2/-3/-4	
Cross section:	2 x 2.5 mm^2 solid or 2 x 1.5 mm^2 stranded ferruled	
Stripping length:	10 mm	
Wire fixing:	Flat terminals with self-lifting clamping piece	IEC/EN 60999-1
Fixing torque:	0.8 Nm	
Mounting:	DIN rail	IEC/EN 60715
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

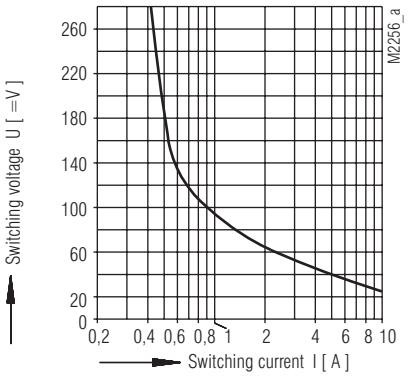
Article number:	0043326
• Output:	1 changeover contact delayed
• Nominal voltage U_N:	AC 230 V
• Time range:	5 ... 100 s
• Width:	17.5 mm

Ordering Example

IK 7825 .81 AC 230 V 50 Hz 1 s

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

Characteristic



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

Arc limit curve