Installation Technique

MINITIMER
Lighting Timing Switch
IK 8814 / OA 8824

Translation of the original instructions

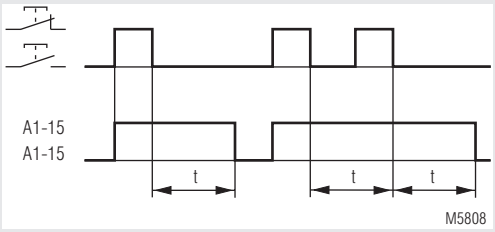
0222095

IK 8814

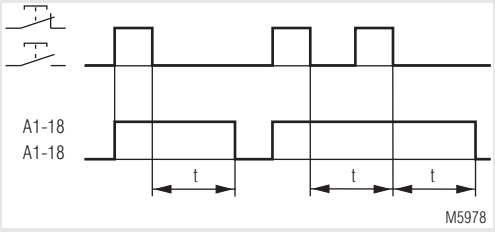
OA 8824

- According to EN 60669-1, EN 60669-2-1
- Reswitching possible
- Operating times between 0.5 ... 60 min., as required
- IK 8814 with permanent light switch and LED indicator for contact position
- IK 8814 for installation in rows, width 17.5 mm
  OA 8824 for installation in flush-mounted boxes

Function Diagrams

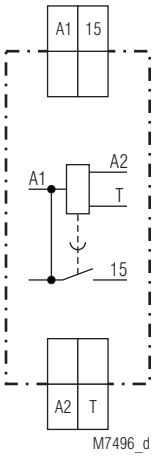


IK 8814

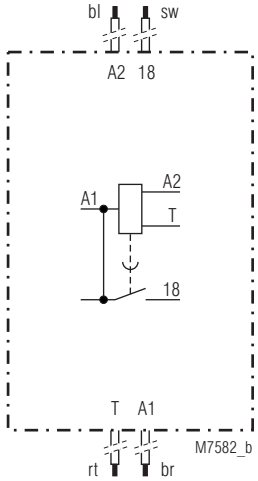


OA 8824

Circuit Diagrams



IK 8814.41



OA 8824.41

Approvals and Markings

CE

Applications

- Automatic staircase light switch
- Delayed-release timing relay
- Time-lag switch

Function

IK 8814 and OA 8824 - that are controlled by a static timing element - can be used as automatic staircase light switches, as delayed-release timing relays or as time-lag switches. While IK 8814 is designed to be mounted on a top hat rail, OA 8824 is suitable for installation in flush-mounted boxes (diameter 60 mm, depth 40 mm).
The operating time can be set using a screwdriver.
When the unit is being used as an automatic staircase light switch, it is activated via a 3- or 4-wire connection by pressing a pushbutton (only a 4-wire connection in the case of OA 8824). The pushbutton and the equipment concerned have to be connected to the same phase in this context.
When a pushbutton is pressed, the contact moves to its active position and the set time starts. The active position is indicated by an LED on IK 8814. The lighting timing switch can be reswitched at any time during the operating period by pressing the pushbutton again. If this is done, the time delay starts again from the beginning without any interruption (in the case of 4-wire circuits).
IK 8814 can be switched to permanent lighting by moving a slide switch that is located on the front of the unit.
If they are wired appropriately (see the connection diagrams), IK 8814 and OA 8824 can also be used as a time-lag relay for a second consumer (e.g. ventilator). When the first consumer (e.g. a light) is switched on, the contacts move to their active position, as a result of which the second consumer is switched on as well.
When the first consumer has been switched off, the contact remains in its active position for the duration of the set time delay.

Connection Terminals

Terminal designation	Signal description
A1	L
A2	N
T	Control input for buttons
15, 18	Contact-output delayed

Indicators

IK 8814
LED: On, when the output relay is activated

Notes

Switch connection boxes (60 cm deep) are suitable for installing OA 8824 can be purchased, for example, from Messrs Kaiser, D - 5885 Schalksmühle / Germany (order no. 1055-02). OA 8824 is also available on request complete with installation pushbutton and installation frame for switch connection boxes (diameter 60 mm, depth 40 mm).

Technical Data

Timing circuit

Timing ranges: 0.5 ... 10 min, 1 ... 20 min, 3 ... 60 min
Repeat accuracy: ± 2 % of the full scale value

Input

Nominal voltage U_N: AC 230 V
Voltage range: 0.8 ... 1.1 U_N
Nominal consumption
Apparent power: IK 8814: 5 VA
OA 8824: 3 VA
Actual power: 0.3 W
Nominal frequency: 50 / 60 Hz
Glow lamps parallel to the pushbutton
IK 8814: 40 mA
OA 8824: 10 mA

Output

Contacts
IK 8814.41: 1 NO contact, delayed
OA 8824.41: 1 NO contact, delayed
Thermal current I_{th}
IK 8814: 10 A
OA 8824: 4 A
Switching capacity with lamp load
Fluorescent lamp load
Duo-switching
IK 8814: 20 lamps with 58 W
5×10^4 switching cycles
OA 8824: 6 lamps with 58 W each
5×10^4 switching cycles
Glow lamp load
IK 8814: 1200 W
OA 8824: 600 W
Short circuit strength max. fuse rating
IK 8814: 10 A gG / gL IEC/EN 60947-5-1
OA 8824: 4 A gG / gL IEC/EN 60947-5-1
Mechanical life: > 10^6 switching cycles

General Data

Operating mode: Continuous operation
Temperature range
Operation: - 20 ... + 45 °C
Storage: - 20 ... + 60 °C
Altitude: < 2000 m
Clearance and creepage distances
Rated impulse voltage / pollution degree: 4 kV / 2 IEC 60664-1
EMC
Electrostatic discharge: 8 kV (air) IEC/EN 61000-4-2
HF-irradiation: 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
Interference suppression: Limit value class B EN 55011

Technical Data

Degree of protection
IK 8814:
Housing: IP 40 IEC/EN 60529
Terminals: IP 20 IEC/EN 60529
OA 8824:
Housing: IP 40 IEC/EN 60529
Vibration resistance: Amplitude 0.35 mm IEC/EN 60068-2-6
frequency 10 ... 55 Hz
Climate resistance: 20 / 045 / 04 IEC/EN 60068-1
Housing: Thermoplastic with V0 behaviour according to UL subject 94
Wire connection
IK 8814
Cross section: 2 x 0,6 ... 2,5 mm^2 solid or
2 x 0,28 ... 1,5 mm^2 stranded wire with and without ferrules
Stripping length: 10 mm
Wire fixing: Plus-Minus-terminal screws M3,5 with self-lifting clamping piece IEC/EN 60999-1
Fixing torque: 0.8 Nm
Mounting:
IK 8814: DIN rail IEC/EN 60715
Weight
IK 8814: 70 g
OA 8824: 31 g

Dimensions

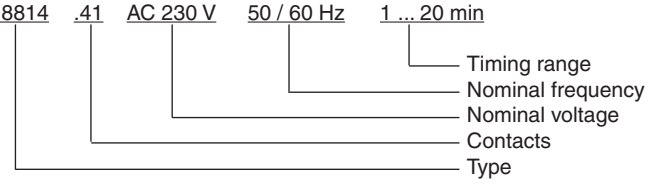
Width x height x depth
IK 8814: 17.5 x 89 x 58 mm
OA 8824: 40 x 58.5 x 18 mm

Standard Type

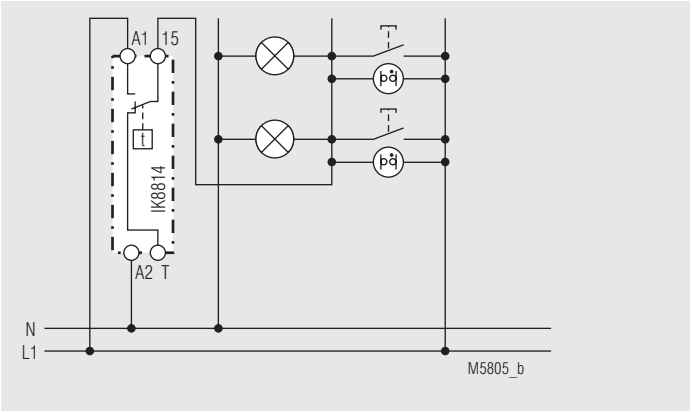
IK 8814.41 AC 230 V 50 / 60 Hz 1 ... 20 min.
Article number: 0029189
- Output: 1 NO contact, delayed
- Nominal voltage U_N: AC 230 V
- Time range: 1 ... 20 min
- Width: 17.5 mm

Ordering Example

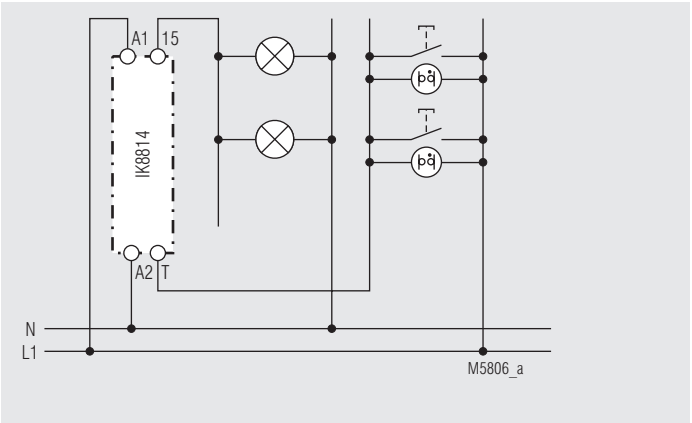
IK 8814 .41 AC 230 V 50 / 60 Hz 1 ... 20 min



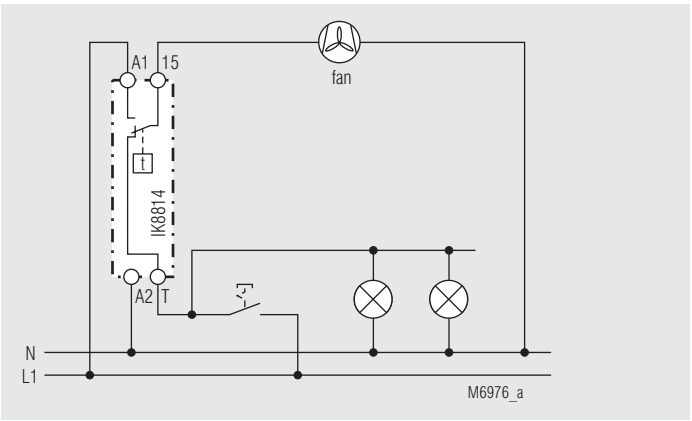
Application Examples



IK 8814 3-wire circuit (cannot be reswitched)

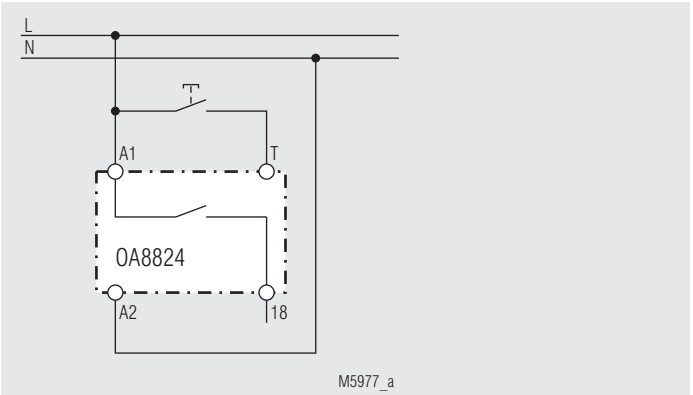


IK 8814 4-wire circuit (cannot be reswitched)

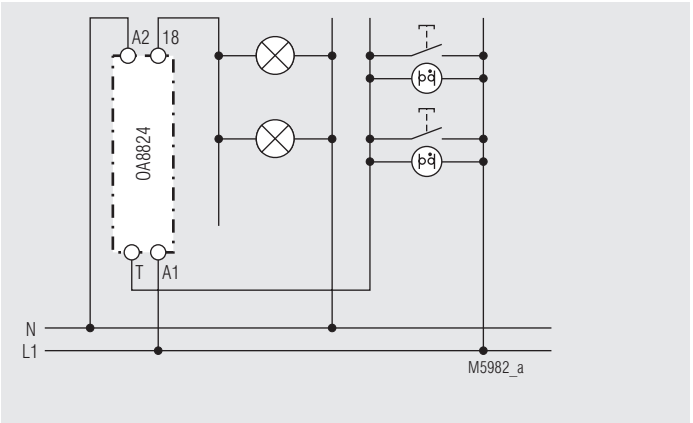


IK 8814 Time-lag circuit

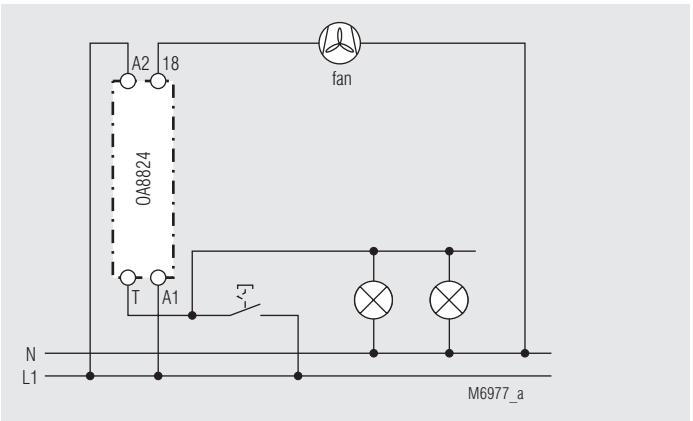
Application Examples



OA 8824



OA 8824 4-wire circuit (cannot be reswitched)



OA 8824 Time-lag circuit