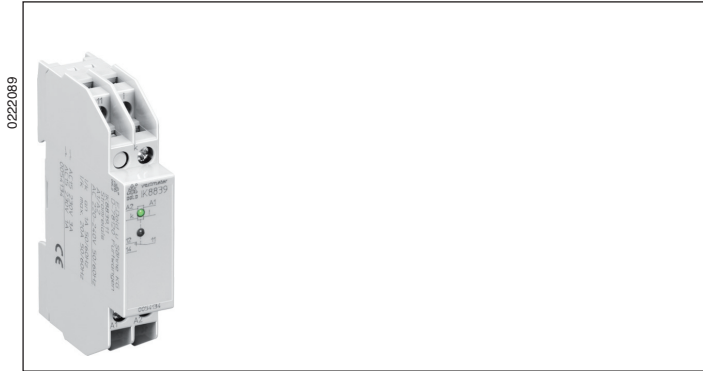


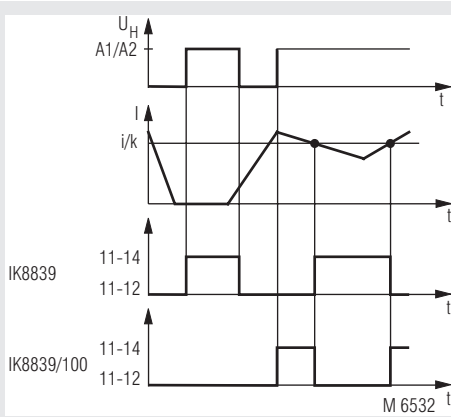
## VARIMETER Current Monitor IK 8839

Translation  
of the original instructions



- According to IEC/EN 60255-1
- Measuring range 0.175 ... 1 A
- Fixed switching point setting
- High maximum load
- 1 changeover contact
- LED indication for operation and output status
- Width 17.5 mm

### Function Diagram



### Approvals and Markings



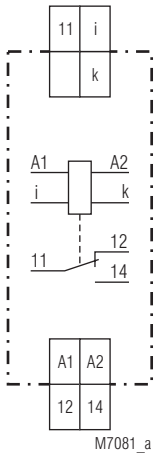
### Applications

For monitoring the operation of consumers that are primarily electrothermal in nature, e.g. heating spirals, supplementary tubular heaters. The current monitor checks whether the operating current is flowing when the consumer is switched on.

### Indicators

- Upper LED: On, when auxiliary supply connected
- Lower LED: On, when output relay active

### Circuit Diagram



### Connection Terminals

Terminal designation	Signal description
A1, A2	Voltage supply AC/DC
i, k	Current measuring inputs
11, 12, 14	Changeover contact (output relay)

Technical Data	
<b>Input</b>	
<b>Switching point, fixed:</b>	Maximum load Permanent 2 s
AC 0.175 A:	AC 20 A AC 150 A
AC 0.6 A:	AC 20 A AC 150 A
AC 0.75 A:	AC 20 A AC 150 A
AC 1.0 A:	AC 20 A AC 150 A
<b>Switching tolerance:</b>	± 15 %
<b>Frequency influence:</b>	48 ... 52 Hz / - 8 % ... + 3 %
<b>Auxiliary voltage <math>U_H</math>:</b>	AC/DC 24 V, AC/DC 48 V AC 110 ... 127 V, AC 220 ... 230 V
<b>Voltage range</b>	
AC:	0.8 ... 1.1 $U_N$
DC:	0.8 ... 1.25 $U_N$
<b>Nominal consumption at AC 230 V:</b>	
Apparent power:	50 / 60 Hz 2.2 VA
Active power:	0.5 W
<b>Nominal frequency:</b>	50 Hz
<b>Nominal consumption:</b>	± 5 %
<b>Output</b>	

<b>Contacts</b>	1 changeover contact
<b>Measured nominal voltage:</b>	AC 250 V
<b>Operate time:</b>	Approx. 60 ms
<b>Thermal current <math>I_{th}</math>:</b>	5 A
<b>Switching capacity</b>	
To AC 15	
NO contact:	3 A / AC 230 V IEC/EN 60947-5-1
NC contact:	1 A / AC 230 V IEC/EN 60947-5-1
<b>Electrical life</b>	
To AC 15 at 5 A, AC 230 V:	Approx. $10^5$ switching cycles
To AC 15 at 8 A, AC 230 V:	Approx. $5 \times 10^4$ switching cycles
<b>Permissible switching frequency:</b>	
	3000 / h
<b>Short circuit strength</b>	
<b>max. fuse rating:</b>	4 A gG / gL IEC/EN 60947-5-1
<b>Mechanical life:</b>	
	$20 \times 10^6$ switching cycles

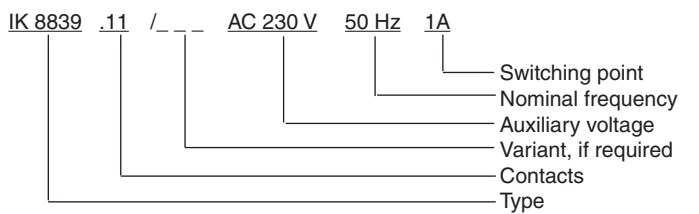
General Data	
<b>Operating mode:</b>	
	Continuous operation
<b>Temperature range</b>	
Operation:	- 20 ... + 60 °C
Storage:	- 25 ... + 60 °C
Relative air humidity:	93 % at 40°C
<b>Altitude:</b>	< 2000 m
<b>Clearance and creepage distances</b>	
Rated impulse voltage / pollution degree:	4 kV / 2 IEC 60664-1
<b>EMC</b>	
Electrostatic discharge:	8 kV (air) IEC/EN 61000-4-2
HF irradiation:	10 V / m IEC/EN 61000-4-3
Fast transients:	4 kV IEC/EN 61000-4-4
Surge voltages	
Between wires for power supply:	1 kV IEC/EN 61000-4-5
HF wired guided:	10 V IEC/EN 61000-4-6
Interference suppression:	Limit value class B EN 55011
<b>Degree of protection</b>	
Housing:	IP 40 IEC/EN 60529
Terminals:	IP 20 IEC/EN 60529
<b>Housing:</b>	
	Thermoplastic with V0 behaviour according to UL subject 94
<b>Vibration resistance:</b>	Amplitude 0.35 mm IEC/EN 60068-2-6 Frequency 10 ... 55 Hz
<b>Climate resistance:</b>	20 / 060 / 04 IEC/EN 60068-1
<b>Terminal designation:</b>	EN 50005

Technical Data	
<b>Wire connection:</b>	2 x 2.5 mm <sup>2</sup> solid or 2 x 1.5 mm <sup>2</sup> stranded ferruled DIN 46228-1/-2/-3/-4
<b>Stripping length:</b>	10 mm
<b>Wire fixing:</b>	Terminals with self-lifting clamping piece IEC/EN 60999-1
<b>Fixing torque:</b>	0.8 Nm
<b>Mounting:</b>	DIN rail IEC/EN 60715
<b>Weight:</b>	62 g
<b>Dimensions</b>	
<b>Width x height x depth:</b>	17.5 x 89 x 58 mm

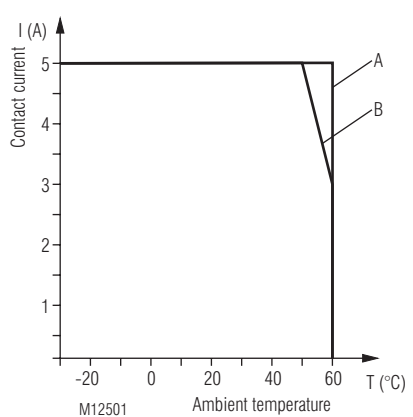
Standard Type	
IK 8839.11 AC 230 V 50 Hz 1 A	
Article number:	0054134
• Output:	1 changeover contact
• Auxiliary voltage $U_H$ :	AC 230 V
• Switching point:	1 A
• Width:	17.5 mm

Variants	
IK 8839.11/100:	With an inverted output
IK 8839.11/001:	With a fixed operate delay 180 ... 300 ms
IK 8839.11/004:	With a fixed operate delay 180 ... 300 ms and gold plated contacts to switch low loads
IK 8839.11/102:	With inverted output and gold plated contacts to switch low loads

**Ordering example for variants**



**Characteristics**



Continuous current limit curve

A = Devices mounted away from heat generation components  
B = Devices mounted without distance, heated by units with similar load