

MK2007

Remote alarm indicator and test combination for medically used rooms



MK2007



Device features

- Status indications and fault messages in accordance with IEC60364-7-710:2002
- Two 7-segment displays for insulation resistance and load current
- Bus technology for easy installation and low fire load
- · Acknowledgeable audible alarm
- · Types available for flush, cable-duct and cavity mounting
- · Front panel with text or pictograms

Approvals







Product description

The MK2007 alarm indicator and test combination is used in accordance with IEC60364-7-710 for visual and audible indication of operating statuses and fault messages and for testing insulation monitoring in conjunction with an ISOMETER® 107TD47 or isoMED427P. The 7-segment displays indicate the following:

- The insulation resistance in $k\Omega$
- · The ratio of the instantaneous load current to the maximum permissible secondary-load current I in %.

LEDs indicate:

- Readiness for operation (green)
- Insulation faults (yellow)
- Overcurrent (yellow)
- Overtemperature (yellow)
- Device fault MK2007CBM(T) and insulation monitoring device

The connection between the MKs and the switchover and monitoring modules/ ISOMETER® 107TD47 or isoMED427P is implemented with bus technology.

Description of functions

On 7-segment displays and LEDs the MK2007CBM shows the alarm messages and measurements output by 107TD47 or isoMED427P insulation monitoring devices, via the BMS bus. In addition, an alarm message can also be displayed from any other insulation monitoring device for operating theatre lamp circuits. The MK2007 can not only be used as a single indicator but also as a parallel indicator. If there is an alarm message, the appropriate alarm LEDs light up. At the same time there is an audible signal (acknowledgeable). If, while one message is waiting, a further message occurs, there will be another audible signal.

The "Test" button is used to check operation of ISOMETER® 107TD47 or isoMED427P. A message is only output on the MK2007 where the test button has been pressed.

When wiring up, one must bear in mind that if supply voltage is also incorporated a 4-wire cable (2x bus, $2x U_S$) with an appropriate cross-section will be required.

Ordering information

Designation	Туре	Art. No.
Alarm indicator and test combination (front foil with symbols)	MK2007CBM	B 923 813
Alarm indicator and test combination (front foil with text)	MK2007CBMT	B 923 801

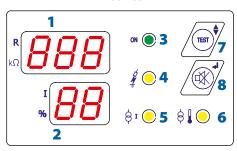
Accessories

Designation	Art. No.
Flush-mounting enclosure	B 923 710
Panel mounting kit	B 923 780
Dry wall installation kit	B 923 711

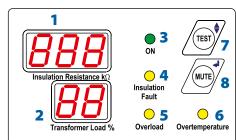


Operating and display elements

MK2007CBM



MK2007CBMT



1 - Display "R" Indication of the monitored insulation resistance in $k\Omega$

2 - Display "I" Indication of the measured isolating transformer load in %

3 - Operation-LED "On" Power ON indication

4 - Alarm-LED "Insulation fault" Alarm message: insulation fault in the system being monitored

5 - Alarm-LED "Overload" Alarm message: overload IT system transformer

6 - Alarm-LED "Overtemperature" Alarm message: overtemperature IT system transformer

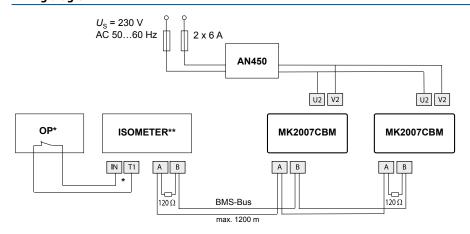
7 - Button "Test" Initiating the self test and the test for the connected insulation monitoring device

8 - Button Alarm buzzer mute

Overview of fault messages/alarm indication

Fault messages	Buzzer	LED Insulation fault	LED overload	LED over- temp.	LED "ON"	Displays "R", "I"
Insulation fault (107TD47)	on	on	-	-	-	value
Insulation fault operating theatre lamp	on	on	-	-	-	"I":"0P"
Excessive load current	on	-	on	-	-	value
Overtemperature isolating transformer	on	-	-	on	-	value
ISOMETER® doesn't respond or ISOMETER® signals: Device fault	on	flashing	off	off	flashing	"Er"
No connection to BMS bus Master (MK2007CBM(T) in slave mode)	on	flashing	flashing	flashing	flashing	"Er"
Data collision on the BMS bus, e.g. because address has been assigned twice	off	flashing	flashing	flashing	flashing	"Er"

Wiring diagram



- 107TD47 only: Optionally additional insulation monitoring device for operating theatre lamp circuits
- ** Isometer = 107TD47 or isoMED427P

Technical data

AC 250 V $4 \text{ kV}/3$ $AC/DC 24 V$ $0, 5060 \text{ Hz}$ $1228 V$ $\leq 2.5 \text{ W}$ $\text{tion resistance in } k\Omega$ $10999 k\Omega$ $0 \text{ (Insulation fault)}$ 999 $\text{ransformer load in } \%$ $\text{ad, over temperature}$ $\text{ter test, buzzer mute}$ buzzer mute
AC/DC 24 V $0,5060~\text{Hz}$ $1228~\text{V}$ $\leq 2.5~\text{W}$ stion resistance in $k\Omega$ $10999~k\Omega$ 0 (Insulation fault) 999 ransformer load in % ad, over temperature ter test, buzzer mute
$\begin{array}{c} 0,50\dots60~\text{Hz} \\ 12\dots28~\text{V} \\ \leq 2.5~\text{W} \\ \\ \text{cion resistance in } k\Omega \\ 10\dots999~\text{k}\Omega \\ 0~\text{(Insulation fault)} \\ 999 \\ \text{ransformer load in \%} \\ \text{ad, over temperature} \\ \text{ter test, buzzer mute} \end{array}$
$\begin{array}{c} 0,50\dots60~\text{Hz} \\ 12\dots28~\text{V} \\ \leq 2.5~\text{W} \\ \\ \text{cion resistance in } k\Omega \\ 10\dots999~\text{k}\Omega \\ 0~\text{(Insulation fault)} \\ 999 \\ \text{ransformer load in \%} \\ \text{ad, over temperature} \\ \text{ter test, buzzer mute} \end{array}$
12 28 V \leq 2.5 W cion resistance in kΩ 10 999 kΩ 0 (Insulation fault) 999 ansformer load in % ad, over temperature ter test, buzzer mute
\leq 2.5 W cion resistance in $k\Omega$ 10999 $k\Omega$ 0 (Insulation fault) 999 cansformer load in % ad, over temperature ter test, buzzer mute
tion resistance in $k\Omega$ 10999 $k\Omega$ 0 (Insulation fault) 999 ransformer load in % ad, over temperature ter test, buzzer mute
10999 kΩ 0 (Insulation fault) 999 ransformer load in % rd, over temperature ter test, buzzer mute
10999 kΩ 0 (Insulation fault) 999 ransformer load in % rd, over temperature ter test, buzzer mute
0 (Insulation fault) 999 ansformer load in % ad, over temperature ter test, buzzer mute
999 ransformer load in % ad, over temperature ter test, buzzer mute
ransformer load in % ad, over temperature ter test, buzzer mute
nd, over temperature ter test, buzzer mute
ter test, buzzer mute
ouzzer mute function
azzer mate rametron
adjustable
RS485/BMS
9.6 kBit/s
≤ 1200 m
: J-Y(St)Y min. 2x0.8
120 Ω (0.5 W)
190
1 (Master)
ing to IEC 61000-6-2
ing to IEC 61000-6-4
3K5
2K3
1K4
-5 +55 ℃
3M4
2M2
1M3

Connection	
Connection details	plug-in terminals
Connection properties	
rigid/flexible/AWG	0.22,5/0.22.5 mm ² /AWG 2412
flexible, with ferrule without/with plastic sleeve	0.25 2.5/0.25 2.5 mm ²
Two conductors with the same cross section	
rigid/flexible	0.2 1/0.2 1.5 mm ²
flexible, with ferrule without plastic sleeve	0.25 1 mm ²
flexible, TWIN ferrules with plastic sleeve	0.5 1.5 mm ²

Other		
Operating mode		continuous operation
Mounting position		any position
Degree of protection, build-in (EN 60529)		IP 50
Degree of protection, terminals (EN 60529)		IP 20
Enclosure		flush-mounting type
11 () (

Enclosure flush-mounting type

Mounting type flush-mounting, cable-duct, switch board

Flammability class UL94 V-0

Weight ≤ 150 g

Dimension diagram

Dimensions in mm

