



- Direct connection up to 690V line voltage, up to 6,6kV with HV adapter for both single or three phase systems
- Monitoring during both live and standby conditions
- For use in industrial, marine, offshore installations
- "Easy view" status presentation
- Immune to earth capacitance and voltage surges
- Analogue output proportional to meter reading
- Adjustable alarm setpoint

**Specifications**

Aux. Supply:	100-120, 200-240, 380-415, or 440-460VAC, 40-70Hz (Fuse 0,5A)
Supply tolerance:	+/- 10%
Power consumption:	1.6VA
Contact rating:	AC: 100VA - 250V/2A max. DC: 50W - 100V/1A max.
Measurement category:	CAT III
Output: (Non-isolated, term. 13 have PE reference)	0-1mA = 10Mohm-0ohm, (max 500R)
Trip adjustment:	KRM163E: 0-10Mohm
Temperature:	-20 to +70°C
Humidity, relative:	0-80%
Operating altitude:	< 2000m above sea level
Location:	Indoor
Pollution degree:	3
Weight:	0.3kgs
Front protection:	P20
Dimensions:	L: 70mm, H: 90mm, D: 58mm
Mounting:	35mm Rail Mount EN 60715
Safety:	EN 61010-1, EN 61010-2-030 CAT III
EMC:	EN 61000-6-2, EN61000-6-4 EN 61326-2-4
Terminal type:	Terminal Clamp and Screw
Wire max/min:	AWG14 - AWG24
Screw Torque:	0.5Nm/4.5 lb-inch

**Description**

The digitally controlled KRM163E uses the Megacon "IDV" insulation measuring principle and monitors insulation level between a non-grounded (IT) mains and its protective earth.

Unit is AC powered. Only **ONE** KRM163E can be connected to each IT-system. The status LED gives the clear safety message:

- ALARM : ● Red LED
- NORMAL : ● Green LED

**IDV MEASURING PRINCIPLE**

Insulation is measured between the AC network and its protective earth. The unit injects a DC measuring signal into the monitored system. The signal flows to ground via the path of the insulation fault, the level of flow indicates the insulation resistance. The measuring accuracy is not influenced by any normal kind of load attached to the AC network.

**OUTPUTS**

Unit is fitted with a **non-isolated** 0-1mA output for local/remote meter reading (optional slave instrument). Alarm relay is a potential free contact. Relay is fail-safe and change state when powered.

A status LED indicator on the KRM163E informs the service engineer whether or not the equipment is in an **Alarm** or **Normal** state at any time.

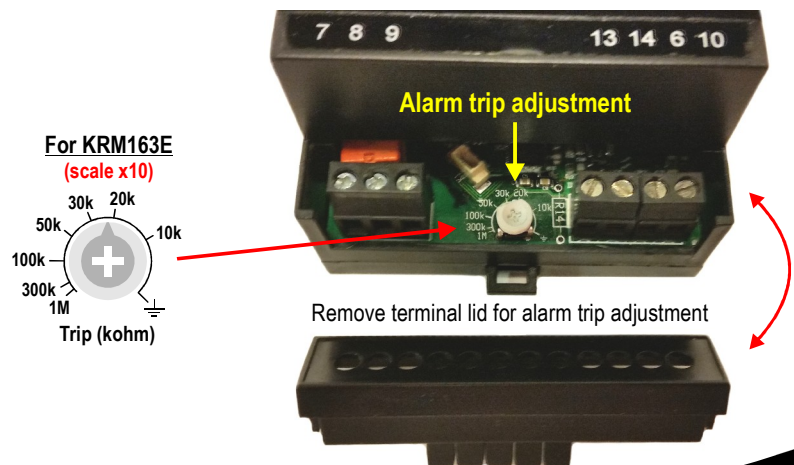
**TRIP LEVEL**

Trip level are settable under the terminal lid. When the adjustable trip setting is exceeded by the monitored line-earth resistance, the fail-safe relay changes state following a fixed 3 secs. delay period, indicating an alarm condition.

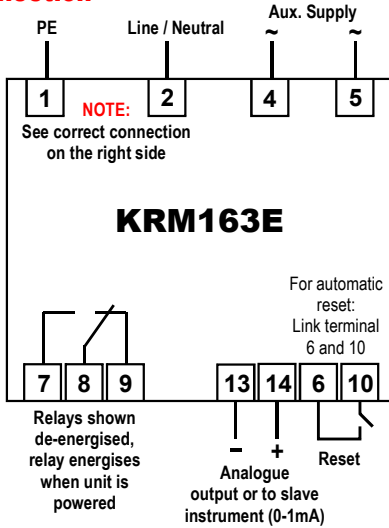
Start of monitoring function is delayed when auxiliary power is switched on (default 10 secs).

**Output table** (example for 0-1mA)

KRM163E Value (scale)	mA output
0kΩ	1mA
100kΩ	0.71mA
200kΩ	0.52mA
300kΩ	0.41mA
500kΩ	0.29mA
1MΩ	0.16mA
3MΩ	0.06mA
10MΩ	0.02mA
Open (60MΩ)	0mA

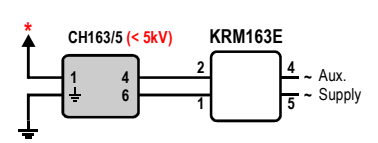
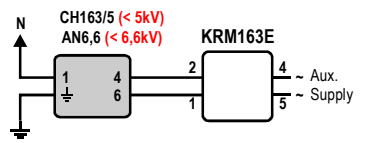
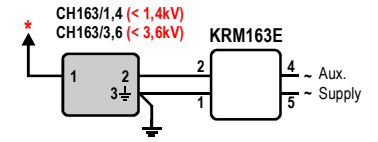
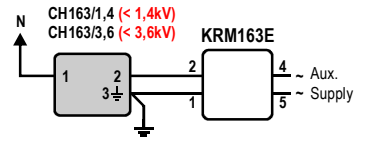
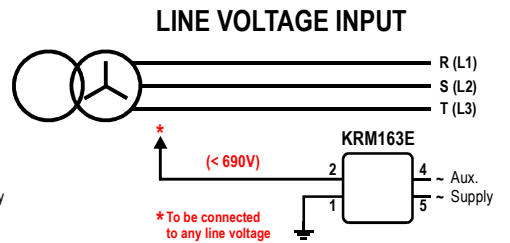
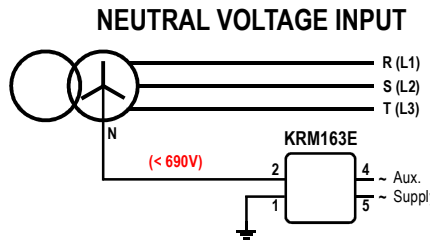


Connection



SAFETY

KRM163E is Megger safe (short time) but will give false reading when megging. Therefore the input terminal must be disconnected before megging the network.



⚠ The instrument will detect earth fault on all phases independent of which phase is connected to terminal 2.

Range and recommended settings

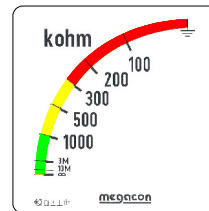
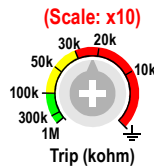
**KRM163E** - Scale range: 0-10M $\Omega$  -  $\infty$  (>60M $\Omega$ )

Coloured sectors show recommended areas of settings:

- Red - Indicates alarm trip zone
- Yellow - Indicates warning trip zone
- Green - Indicates healthy zone

Alarm trip adjustment

Trip level are settable under the terminal lid. (See image on page 1)



High Voltage Adaptors up to 6,6kVAC for KRM163E series



CH163/1,4 up to 1.4kVAC  
(for KRM163E series)



CH163/3,6 up to 3.6kVAC  
(for KRM163E series)

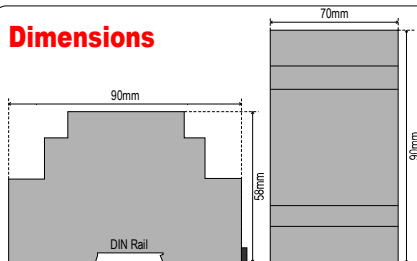


CH163/5 up to 5kVAC  
(for KRM163E series)



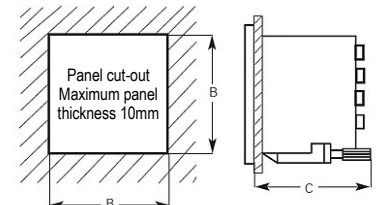
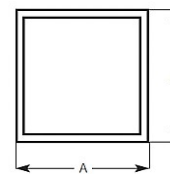
AN6,6 up to 6.6kVAC  
(for KRM163E series)

Dimensions



Dimensions for optional slave instrument

	A	B	C
DIN72	72 x 72mm	68 x 68mm	64mm
DIN96	96 x 96mm	92 x 92mm	64mm



The MEGAON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

ORDERING EXAMPLE:

Type: KRM163E  
 Aux. Supply: 200-240VAC  
 Network Voltage: 3,6kVAC  
 Analogue O/P: 0-1mA  
 Range: 0-10Mohm

