

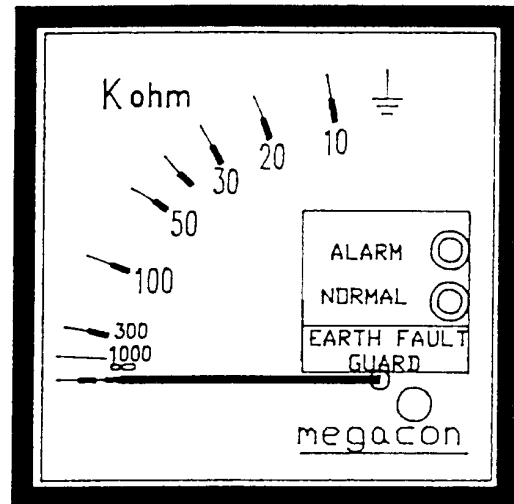
KPM161

Automatic Insulation Guard

Indication of insulation level

Relay outputs for warning and alarm

Monitoring networks during active (live) and non-active (standby operation)



FEATURES

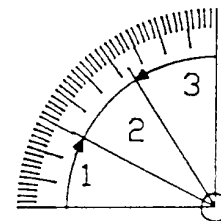
This instrument measures and indicates the resulting insulation level between any single or three phase isolated (non-earthed) A.C. system and its protective earth rail. The instrument will continuously monitor the AC system in the active (live) or non-active (de-energised) states and will read the insulation resistance directly in Kohms. The basic KPM161 is suitable for systems up to 660V AC but can be adapted for voltages to 6.6KV (see datasheet KPM163 - page 3.070).

The range of the instrument is split into three sectors (control zones); NORMAL, WARNING and ALARM. Green and red lamps indicate the level of safety as described below.

This unit can be used in conjunction with ELU96 which will indicate which phase is causing the earth fault (see connection diagram on reverse). Normally the three LED's on the ELU96 will be at full brilliance. When a fault is indicated by the MPI161 then the phase at fault will be indicated by a dim lamp when the test button is operated.

Note: Only one KPM161 unit using a superimposed D.C. monitoring voltage can be used for each interconnected system or network.

<u>Zone</u>	<u>Condition</u>	<u>Contacts Closed</u>	<u>Lamp Status</u>
	Power off	4-5 and 7-8	Lamps off
1	Normal insulation level	4-5 and 6-7	Normal on (Green)
2	Deviation from normal	3-4 and 6-7	Lamps off
3	Hazardous conditions	3-4 and 7-8	Alarm on (Red)

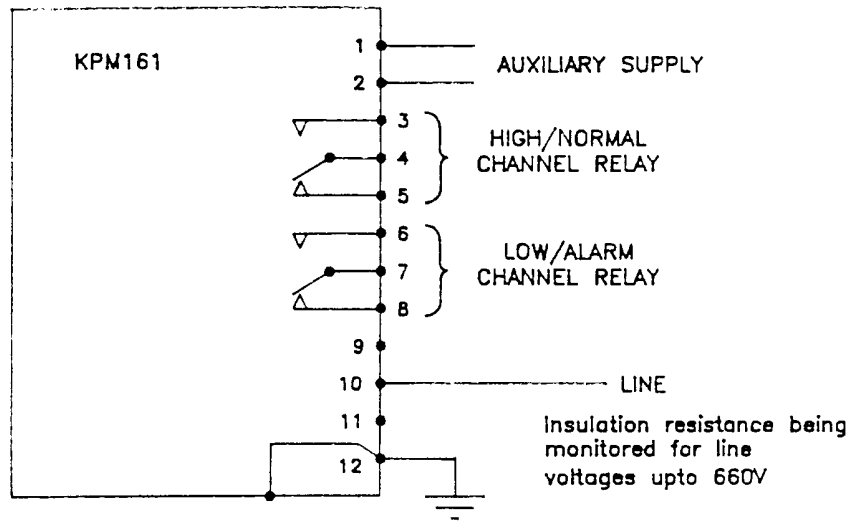


Operation of Low relay (ALARM) inverted.
Delay in direction of arrows.

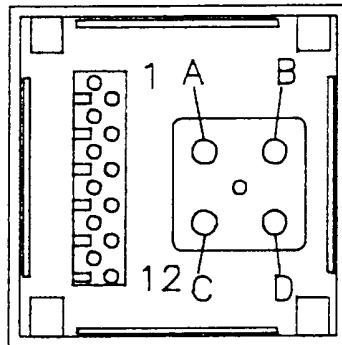
SPECIFICATION

System Voltage	: Up to 660V AC	Consumption	: 2VA
Auxiliary voltage	: Std voltages 110-440V AC	Output relays	: Potential free C/O contacts
Injection voltage	: 24V DC		: AC: 1800VA 440V max.
Trip WARNING (High)	: 0 to 1 Mohm		: DC: 50W Resistive 200V max.
Trip ALARM (Low)	: 0 to 1 Mohm	Dimensions	: See Diagram G, Section 8
Delay WARNING (High)	: 0 to 30 secs.	Weight	: 0.8Kg
Delay ALARM reset (Low)	: 0 to 3 secs.		

<u>Ordering information</u>	:	Auxiliary voltage	:
	:	Monitored voltage	:



- NOTE:
1. RELAYS SHOWN DE-ENERGISED.
 2. HIGH/NORMAL RELAY ENERGISED WHEN INSULATION RESISTANCE IS LOWER THAN SET LEVEL.
 3. LOW/ALARM RELAY ENERGISED WHEN INSULATION RESISTANCE IS HIGHER THAN SET LEVEL.
 4. CASE CONNECTED INTERNALLY TO TERMINAL 12.



- A - Warning trip 0 to 1 Mohm
- B - Warning delay 0-30 seconds
- C - Alarm trip 0 to 1 Mohm
- D - Alarm reset delay 0-3 seconds

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