

GROUND MONITOR

– INSULATION RESISTANCE MONITOR –

MODEL : SBAG – 102
SBAG – 202
SBAG – 402



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■ GENERAL INFORMATION

The insulation resistance monitor is intended to monitor the insulation resistance to ground of AC lines. And th issue an alarm signal if the insulation resistance goes below a predetermined value. The insulation resistance monitor is an electronic insulation detecting device with elecromechanical relay contact output. The AC monitor permits a connection of an external meter is not to affect the detecting operation of the monitor. Please select-up the Models as follows :

■ SPECIFICATIONS

● GENERAL TABLE

MODEL	Auxiliary control voltage		Insulation resistance setting 12 step value is selectable	Maximum detecting line voltage
	Norminal	Variations		
SBAG-102	AC110V	AC 85~135V	0.01 - 0.02 - 0.03 - 0.05 - 0.1 - 0.2 - 0.3 - 0.5 - 0.7 - 0.9 - 1.0 - 1.5MΩ	AC 1P/3P 690V
SBAG-202	AC220V	AC170~270V		
SBAG-402	AC440V	AC395~485V		

● DETECTION ACCURACY

AMBIENT TEMP	DETECTION ACCURACY (percent value in reference to set value)		Range of aux ^l voltage variations	
			Norminal	Variations
+ 3°C ~ 45°C	0.01 ~ 1.5MΩ	± 5%	AC110V	AC 85V ~ 135V
	~ 0.01MΩ, 1.5MΩ ~	±10%	AC220V	AC 170 ~ 270V
-10°C ~ +3°C +45°C ~ 60°C	0.01 ~ 1.5MΩ	±10%	AC440V	AC 395 ~ 485V
	~ 0.01MΩ, 1.5MΩ ~	±20%		

● DEAD BAND : 5% of less the set value.

● NOTE

The dead band refers to the difference in % of the set value between the pickup value and the drop out value. The pickup value is a value at which the monitor turns to an operate state and drop value is a value at which the monitor is reset to a non-operate state. In other words, the dead band is reset hysteresis. The detection accuracy is the maximum deviation if the actual pickup value from the nomical set value.

● SELECTION FO SETTING : By 12-position selector switch.

● MAXIMUM OUTPUT CONTACT RATING : 5A (resistive) or 2A (inductive) at 30V DC.

5A (resistive) or 2A(inductive $\cos \varnothing = 0.6$) at 125V AC.

3A (resistive) or 1A(inductive $\cos \varnothing = 0.6$) at 250V AC.

● OUTPUT CONTACT FROM : 1C (single- pole double - throw).

● DIELECTRIC STRENGTH : 2.5KV between electric circuit (T.B #8) and enclosure for 1min.

● POWER CONSUMPTION : 5VA

● MAXIMUM LEAKAGE CURRENT : 250 μ A (Detector circuit)

● MONITOR OPERATION CHECK : A test circuit that applies a short or a dummy resistance less than the set value across each test terminals and ground terminals is to be provided by the user for monitor operation check.

● OPERATION TIME DELAY : 3.0 sec (\pm 0.5 sec) definite time delay, reset time delay is 0.5 sec or less.

- OPERATION TEMPERATURE RANGE : $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- STORAGE TEMPERATURE RANGE : $-40^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- VIBRATION : The monitor is so constructed that it will withstand applications of the following vibration for 2 hours in each X, Y and Z directions : – for vibration frequency from 2 to 13.2Hz, 2mm double amplitude, for vibration frequencies 13.2 to 100Hz.
- SPECIFICATION OF INSULATION RESISTANCE METER (Option)

Three meter types available

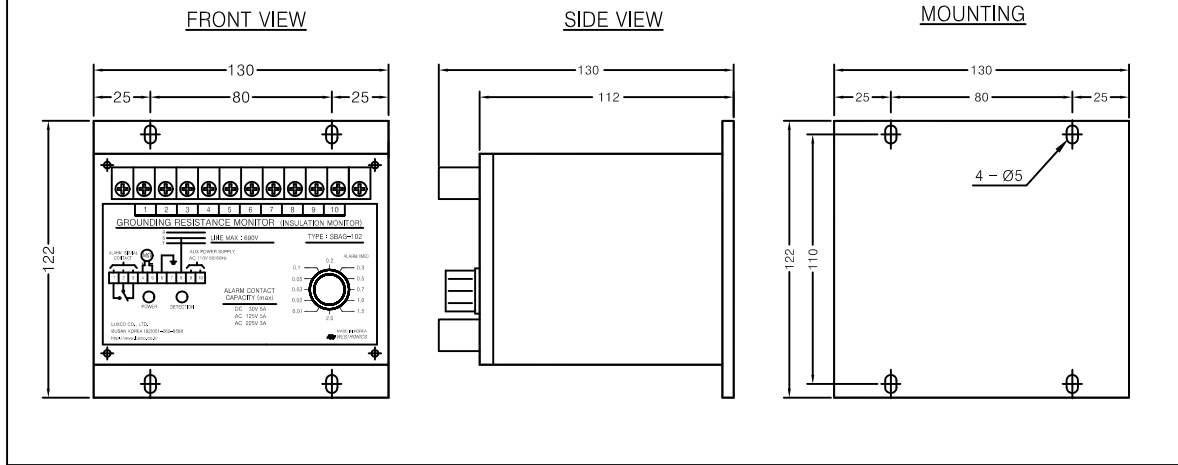
METER TYPE	REMARKS	SIZE m/m
W11 – AD	option (wide angle METER)	110 × 110
DCF – 12Na	standard (Japan TOTO)	120 × 100
KS – 6e	option	72 × 72

● METER INDICATION ACCURACY

SCALE RANGE	SCALE RANGE (% of indicated value)	REMARKS
0.05M Ω ~ 1M Ω	$\pm 5\%$	Operating temprature range $- 20^{\circ}\text{C} \sim + 60^{\circ}\text{C}$
outside of above : less than 0.05M Ω and more than 1M Ω :	$\pm 10\%$	

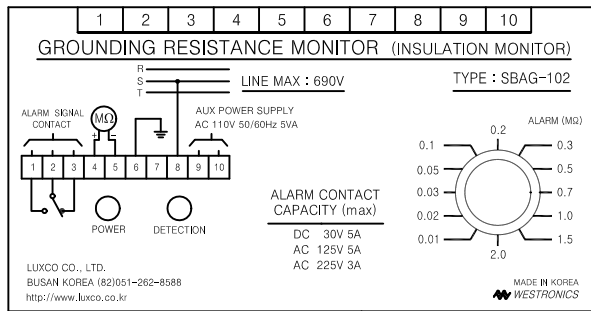
■ SBAG - 102/202/402

OUTSIDE DIMENSION : unit in m/m

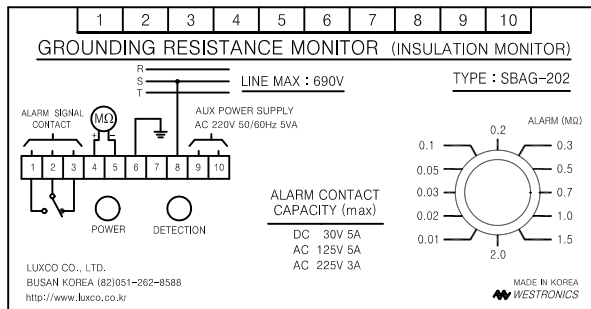


■ NAME PLATE

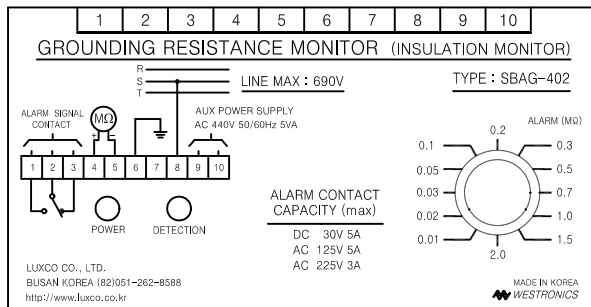
SBAG - 102



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SBAG - 402



■ INSTRUCTION MANUAL (FOR SBAG-102/202/402)

● GENERAL

This insulation resistance monitor consists of a meter and a power box monitor the insulation level of a non-grounded AC electrical system.

● MONITOR

The monitor converts 110V or 220V or 440V AC power into regulated DC power.

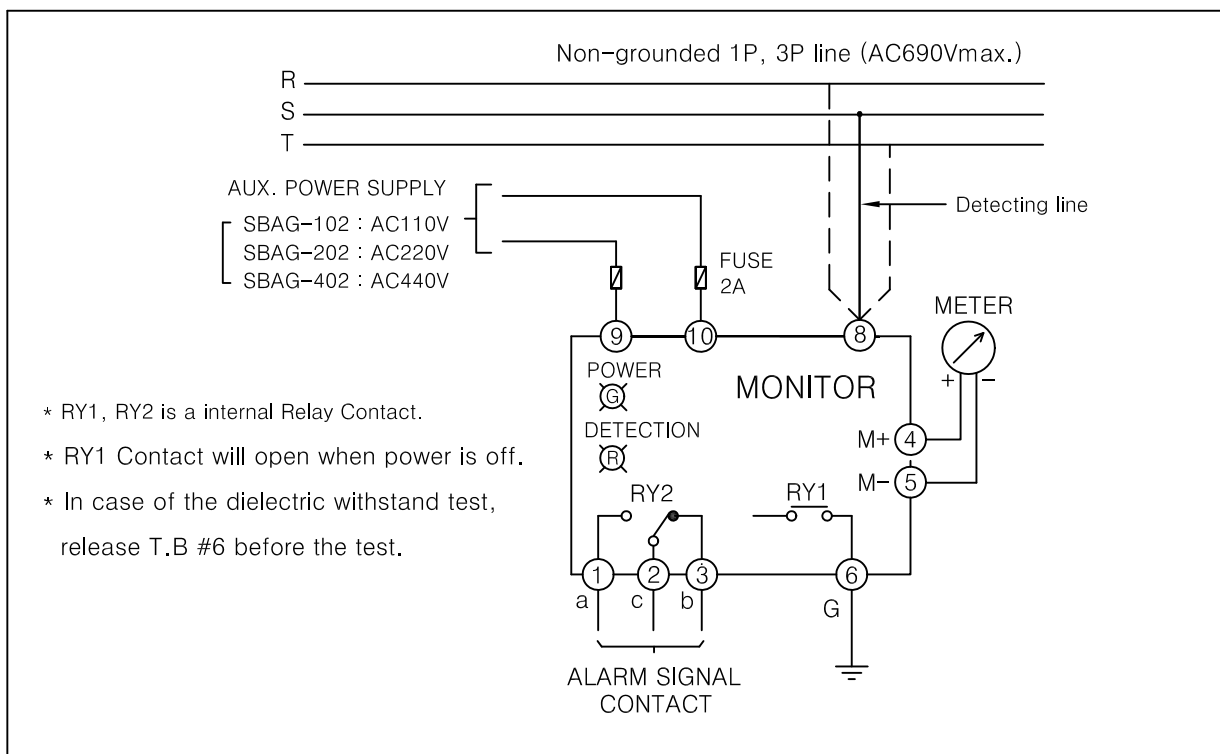
It's DC output circuit is electrically isolated from the AC input circuit by means of a transformer.

● FEATURES

This insulation resistance monitor features :

- continuous monitoring of insulation level.
- provision for low insulation level alarm, output contact can be used as either alarm "make" or alarm "break" signal.
- error - free stable operation, use of voltage regulator circuits in both meter and relay sections.

● CONNECTION



* The terminal (#8) of the monitor may be connected to any of the lines 'R', 'S' or 'T'.

* The power transformer (P.T) is not necessary when the monitored system operates on A.C 110/220V.