EARLY WARNING LIQUID LEAK LOCATING SYSTEM

DESCRIPTION	TECHNICAL DATA
1 .General Features	
Made	ELSA
Model	3L-AP
Dimension	120mm(w)x171mm(L)x60mm(H)
Panel Mounting Hole dimension	158.7mm(L)x 91mm(w)
Precision to locate leak location	+/-1m or +/-0.5%
Display	LCD with backlight -2 x 14 characters
Sound Alarm	90dB max. buzzer with silencing button
System reset	One Single Push Button for Testing/Resetting the system (hold down button for 6 secs)
Failsafe operation	Ability to operate in loop installation, ability to detect / locate liquid leakage during cable break
Time to detect leak/cablebreak	4 seconds typical
Liquid leak detection data	Typically 20mm in length of liquid (such as tap water) in full contact with sensing cable
Remote Supervision	By RS485 Modbus and/or analog output 4 - 20mA interface
Simultaneous Supervision	Up to 15 panels through Modbus by BMS or PC software
2.Enviroment Ratings	
Operating temperature	-10 to 50 degree C (Indoor installation only)
Storage temperature	-20 to 70 degree C
Humidity	5% to 95% non-condensing
3. Power Requirement	
Power Supply	230+/-15%VAC,50/60Hz
Optional input	115VAC/50-60Hz or 12 to 30VAC/DC power input
Power Consumption	3.5 VA/3 W maximum

4. Power Relays Switching characteristics	
Cable break/power failure dry contact (1 relay)	Operation - SPDT, Switching current - 3A at 250 VAC, 5A at 30VDC
Liquid leakage dry contact (2 relays)	Operation - SPDT, Switching current - 5A at 250 VAC, 7A at 30VDC
5. Serail Communication Interface	
Physical support	Two-wire RS485,ESD and surge protected as per IEC 61000-4-5
Protocol	Modbus
6. Analog Output	
Physical support	4 to 20mA opto-isolated interface
Voltage range	9 to 36 VDC overvoltage protected
Additional information	Two-wire opto-isolated analog current interface with galvanic separation of 2.5kV
Nominal current	Normal - 4mA, cablebreak - 20mA, Leak-6mA plus 0.0625 mA per meter of leak location
7. Compliance to Internation Standards	
EMC emission	IEC 61000-6-3(2001)- Electromagnetic compatibility, General emission standard for residential, commerial and light industrial enviroment
EMC immunity	IEC 61000-6-1(2001)-Electromagnetic compatibility, General immunity standard for residential, commercial and light industrial environment
8. Characteristic and Performance of ELSA sensing cable -3L-LS	
Cable diameter	6.5mm avg
Continuity wires	White and Red insulated with flame-retardant polymer
Sensing Wires	2x Black wires semi-conductive polymer
Carrier	Flame-retardant polymer material with greenish color in high visibility
Fire resistance	Non-flame propagating and self-extinguishing