

Wetness Detector - Model WS-58101

INTRODUCTION

The model WS-58101 wetness detector detects the presence of liquid precipitation or dew on a leaflike detector grid. Ordinary surface contaminants on the detector grid and electrolytes in rain allow sufficient electrical conduction for a simple ON-OFF indication of wetness.

The threshold of wetness detection on the grid is not completely characterised. The device has been shown empirically to work under ordinary rainfall and dew conditions.

INSTALLATION

Mount the unit with the detector grid facing skyward but sloping at 45° to the ground. Do not apply waxes or other surface treatments to the detector grid since this could adversely affect its detection capability.

OPERATION

The adjustable voltage output indicates the wetness condition. This voltage is NOT proportional to the amount of wetness. It is simply an ON - OFF indicator. The output may be measured as a digital or analog value giving great flexibility in connecting the data collecting/measuring equipment. Typically, for digital measurement, the ON output is set for 5 VDC. For analog measurement, 1 VDC or 5VDC may be chosen. The OFF condition is represented by 0 VDC. To determine the proportion of time a wetness condition exists over some period, integrate the digital or analog values measured during that period.

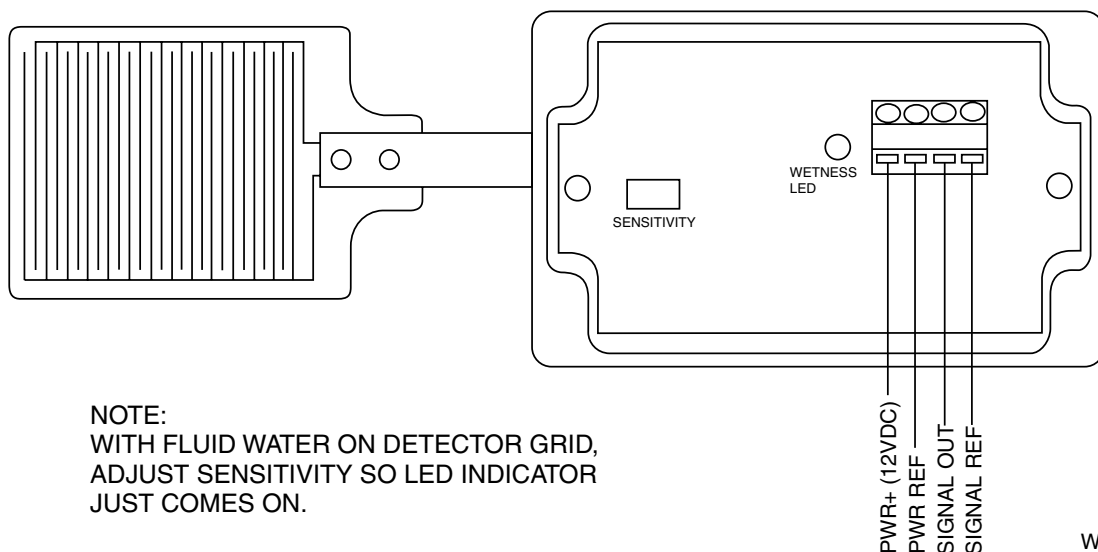
MAINTENANCE

The grid is gold plated to minimise corrosion and AC excitation voltage is used to minimise electrolysis. Use distilled water and tissue to clean as needed.

SPECIFICATIONS

Power Requirements:	8-24VDC
	6mA @ 12VDC - wetness ON
	12mA @ 12VDC - wetness OFF
Operating Temperature:	0 to 50°C
Output:	0V OFF 5V ON (standard)
	0V OFF 1V ON (optional)
Dimensions:	Housing: 110mm (w) x 75mm (h) x 60mm (d)
	Detector: 64mm x 51mm, Grid spacing 1.9mm
	Mounting: Bracket with U-bolt to fit vertical pipe 25mm to 50mm dia..

ORDER CODE - WS-58101



NOTE:
WITH FLUID WATER ON DETECTOR GRID,
ADJUST SENSITIVITY SO LED INDICATOR
JUST COMES ON.