

## AUTOMATIC RAINFALL STATION

### Model-MECH - ARS

#### Applications

- Measurements of Rainfall
- Target Cliental: WRD, IMD, CWC, Agriculture, Irrigation, Tropical metrology etc

#### Features

- Self-Reporting at predefined time interval
- Selectable Station ID
- Local Data Storage for one year with Data retrieval facility
- Programmable Data Storage interval from 1.00 min to 24.00 Hrs.
- Local Display facility using VGA graphics LCD display
- Two RS-232 ports, One RS-485 port, One SDI-12 port, One Ethernet Port & Two USB ports
- Long range data Transmission--- Using VHF / UHF / GSM / GPRS / VSAT / INSAT/GOES / Lease Line networks
- Easy to Read & Calibrate
- Auto Reset facility after one year
- Improved accuracy
- Input power voltage 12-19 V Solar power supply
- GPS Receiver (Optional)
- Remote Programmable
- Having capability to interface variety of sensors with varying range of output
- Test mode facility with data log



#### Description

This unit is designed for collection, storage and transmission of Rainfall data, from remote stations to control room

Rainfall for current hour, Today's, Yesterday's and cumulative rainfall from defined date of start of monsoon (Generally 1<sup>st</sup> of June) are continuously displayed

Operate in harsh environment. Local data is stored for one year on FIFO basis with facility for local retrieval of data.

Programmable data storage and data transmission interval

Data retrieval facility using USB/SD cards

It powered with 12 VDC Hybrid (mains & Solar) power source.



**Specifications**

Input Power:	Charger input	12-20 VDC Solar
Solar Panel:	As required	30/40/50/...100 watt
Battery:	Type Support Cap. Protections Battery U/V Connection Wire size	SMF (Not included) 20-180 A-h. Reverse polarity connection Automatic load Disconnect Screw clamp wire terminal 28-14 AWG
Charging Rate:	20-180 A-h cap.	Regulated to 4A.
Display	Monochrome, graphics Language	for local data display English
I/O lines:		
D/I	08 optically isolated	
D/O	08 optically isolated	
A/I	04 transient protected	
A/O	01 transient protected	
Communication:	Serial Port  USB Host USB Device Ethernet (Optional)*	RS-232 – 2 Nos RS-485 – 1 No SDI-12 – 1 No USB Port – 1 No. USB Port – 1 No. 10/100 Base T – 1 No.
Data Transfer Rate:	RS-232 SDI 12	115200 bps 1200 bps
Memory:	Program Memory Storage Memory: Removable Memory	256 KB Flash 4 MB Flash 16 GB Flash Internal Expandable to 8 MB SD card/ USB Host
GPS (Optional)*	Frequency Antenna Format Acquisition sensitivity Tracking sensitivity Time PPS	1.57 Ghz. Passive NMEA-0183 format -160 dBm -160 dBm + 61 ns
Acquisition time:	Hot Start Warm Start Cold Start	> 01 Sec > 35 Sec > 35 Sec

Sensor	Range	Resolution	Accuracy
Rainfall	unlimited	0.2/0.5/1 mm	±2 %
Rainfall	unlimited	0.2/0.5/1 mm	±5 %

**Note:**

- 1) Sensors with higher accuracy will be provided if required (**Optional\***)
- 2) Solar Panel & Batt. capacity will be selected as per power requirement at site

**Mechanical:**

Finish (Color)	RAL 7032	
Environmental:	Temperature	-20° to 60° C
	Relative Humidity	0 to 100 %.
Protection	Enclosure	IP 65

**Ordering Information**

Model No.	Description
MECH_ARS	Automated Rainfall Station



MECHATRONICS HOUSE, Sr. No. 107,  
Mumbai Bangalore bypass Highway,  
Warje, Pune-411052, (INDIA).  
Ph.91-20-25218371, Fax 91-20-25218370  
[www.mechatronicspune.com](http://www.mechatronicspune.com)  
Email: [info@mechatronicspune.com](mailto:info@mechatronicspune.com)