

SR3201B-16

RS485 interface 16 channel soil moisture recorder

User Manual

File Version: V23.8.11

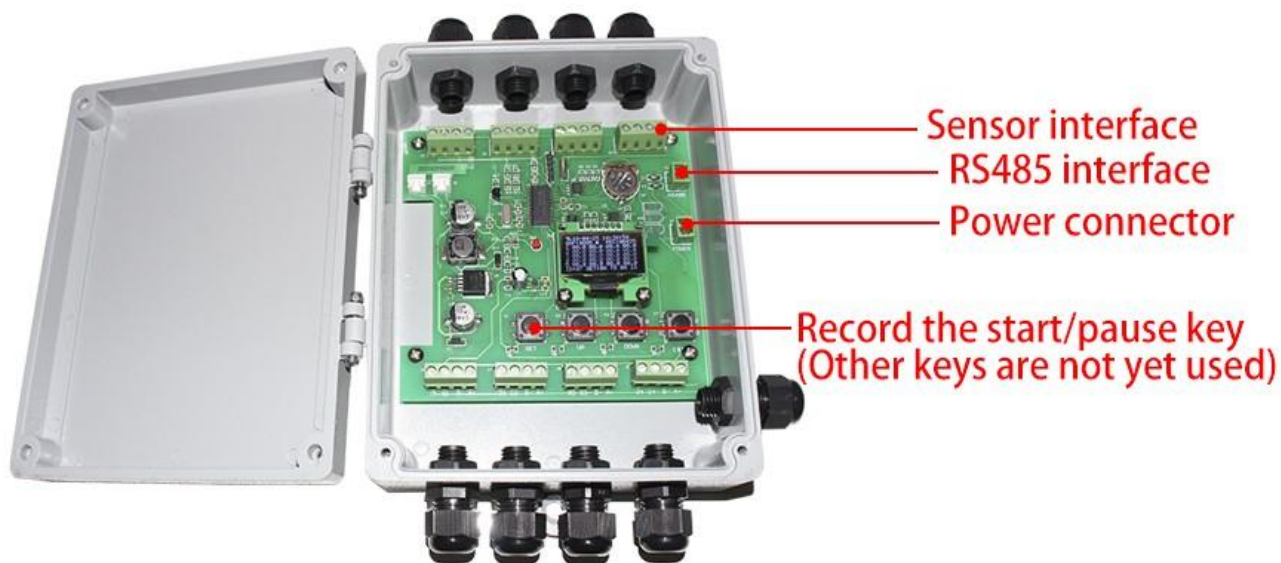


SR3201B-16 using the standard RS485 bus MODBUS-RTU protocol, easy access to PLC, DCS and other instruments or systems for monitoring soil Moisture state quantities. The internal use of high-precision sensing core and related devices to ensure high reliability and excellent long-term stability, can be customized RS232, RS485, CAN, 4-20mA, DC0~5V\10V, ZIGBEE, Lora, WIFI, GPRS and other output methods.

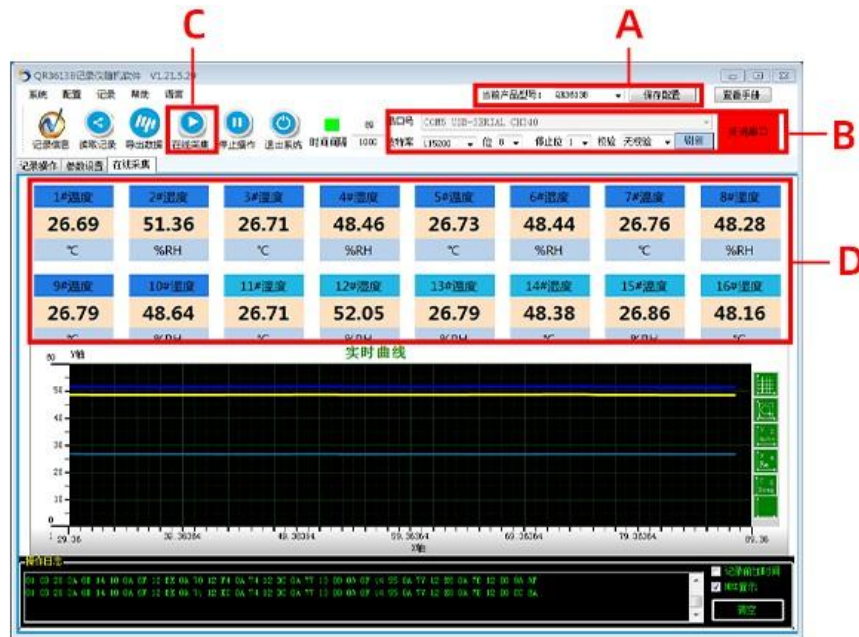
Technical Parameters

Technical parameter	Parameter value
Brand	SONBEST
Moisture measuring range	0~100%
Moisture measuring accuracy	±3% @25℃
Communication Interface	RS485
Default baud rate	9600 8 n 1
Power	DC9~24V 1A
Running temperature	-30~85℃
Working humidity	5%RH~90%RH

Product Size



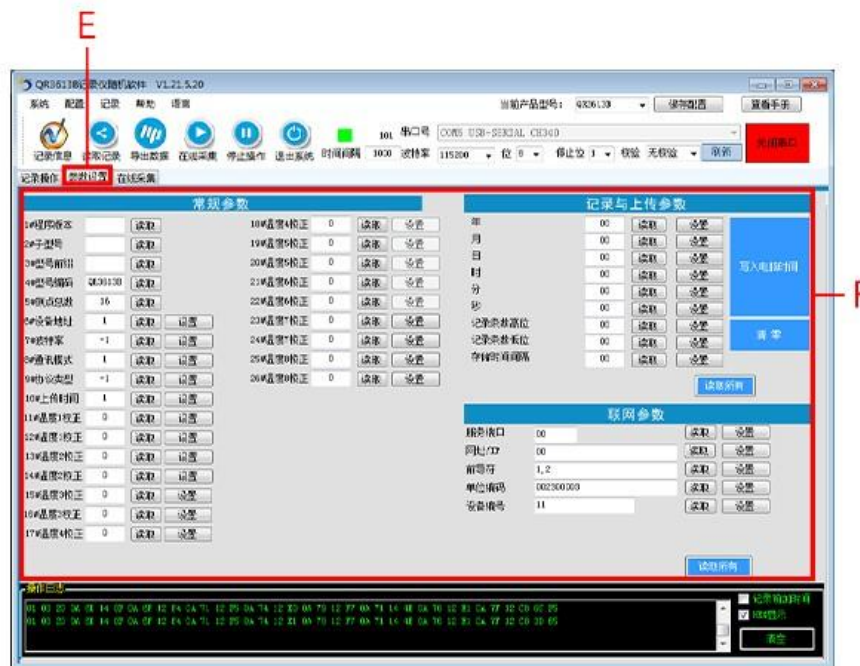
SOFTWARE INSTRUCTIONS



A:After opening the software, enter the main interface, select the corresponding product model at the time of purchase, and save the settings after selection, in case you need to reselect it after opening it next time.

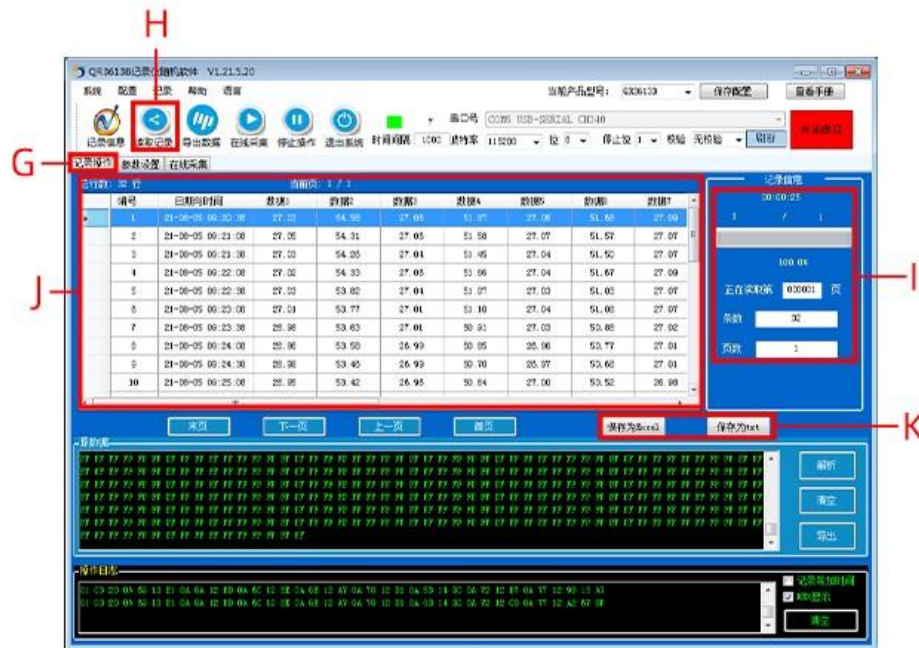
B:Use the USB converter to insert the computer's USB2.0 interface, the driver will be installed automatically, If the installation fails, you can install it in the driver wizard software. After connecting to the computer, Select the serial port number: USB-SERIAL CH340 (COM5),set the baud rate
Click to open the serial port to complete the connection.

C D:After opening the serial port, click online collection (C) to see the real-time measurement data (D).



E: Enter the parameter setting interface

F: A variety of parameters can be set in the parameter setting, such as temperature and humidity correction, baud rate, upload time and other parameters. For the parameters on the right, you can click on "read all" to set the parameters on the recorder.



G: Enter the record operation interface

H: Click "Read Data" to start transferring the data on the recorder to the software.

I: After the step (H), the number of read data, the total number of data, and the number of pages will be displayed at the top of the reading.

J: The read data will be displayed on it

K: You can export the read data in Excel or txt format





ID	Time	1#温度	2#温度	3#温度	4#温度	5#温度	6#温度	7#温度	8#温度	9#温度	10#温度	11#温度	12#温度	13#温度	14#温度	15#温度	16#温度
1	2021/8/9 9:20	27.03	54.58	27.05	51.87	27.06	51.58	27.09	51.45	27.12	51.83	27.05	55.16	27.13	51.58	27.17	51.32
2	2021/8/9 9:21	27.05	54.31	27.05	51.58	27.07	51.57	27.07	51.37	27.09	51.71	27.07	55.11	27.1	51.48	27.18	51.22
3	2021/8/9 9:21	27.03	54.26	27.04	51.45	27.04	51.5	27.07	51.29	27.09	51.6	27.05	56.95	27.1	51.39	27.16	51.09
4	2021/8/9 9:22	27.02	54.33	27.05	51.66	27.04	51.57	27.09	51.3	27.1	51.66	27.07	55.02	27.09	51.41	27.14	51.09
5	2021/8/9 9:22	27.03	53.82	27.04	51.07	27.03	51.03	27.07	50.85	27.1	51.18	27.04	56.49	27.09	50.95	27.13	50.64
6	2021/8/9 9:22	27.01	53.77	27.01	51.1	27.04	51.06	27.07	50.85	27.09	51.17	27	56.44	27.05	50.89	27.1	50.69
7	2021/8/9 9:23	26.98	53.63	27.01	50.91	27.03	50.88	27.02	50.63	27.05	50.95	26.98	54.3	27.05	50.69	27.11	50.38
8	2021/8/9 9:24	26.96	53.58	26.99	50.85	26.96	50.77	27.01	50.65	27.03	50.92	26.97	54.33	27.02	50.77	27.1	50.46
9	2021/8/9 9:24	26.98	53.46	26.99	50.7	26.97	50.66	27.01	50.5	27.02	50.74	26.98	54.16	27.04	50.55	27.1	50.2
10	2021/8/9 9:25	26.95	53.42	26.95	50.64	27	50.52	26.98	50.29	27	50.62	26.98	53.95	27.04	50.42	27.07	50.17
11	2021/8/9 9:25	26.91	53.28	26.92	50.56	26.94	50.32	26.96	50.12	27	50.45	26.91	53.88	27.01	50.3	27.04	50.06
12	2021/8/9 9:26	26.91	53.14	26.92	50.43	26.93	50.3	26.96	50.09	26.96	50.42	26.93	53.97	27.01	50.27	27.03	49.59
13	2021/8/9 9:26	26.89	53.02	26.9	50.09	26.93	50.17	26.93	49.94	26.96	50.24	26.89	53.89	26.99	50.09	27.03	49.75
14	2021/8/9 9:27	26.85	52.7	26.87	49.92	26.93	49.92	26.91	49.69	26.95	49.93	26.89	53.29	26.95	49.81	27	49.48
15	2021/8/9 9:27	26.84	52.77	26.85	49.96	26.87	49.91	26.93	49.71	26.92	49.99	26.87	53.5	26.95	49.81	26.99	49.4
16	2021/8/9 9:28	26.85	52.3	26.82	49.5	26.87	49.44	26.88	49.17	26.9	49.55	26.84	53.01	26.91	49.31	26.99	49.06
17	2021/8/9 9:28	26.79	52.38	26.81	49.62	26.86	49.5	26.87	49.25	26.89	49.69	26.84	53.08	26.88	49.45	26.94	49.19
18	2021/8/9 9:29	26.79	52.17	26.81	49.39	26.83	49.32	26.87	49.07	26.86	49.43	26.8	52.88	26.91	49.23	26.94	49.54
19	2021/8/9 9:29	26.78	51.95	26.75	49.21	26.8	49.15	26.81	48.92	26.83	49.25	26.77	52.67	26.85	49.01	26.92	49.76
20	2021/8/9 9:30	26.75	51.98	26.75	49.2	26.77	49.1	26.8	48.89	26.82	49.29	26.75	52.77	26.84	49.04	26.92	49.79
21	2021/8/9 9:30	26.75	51.95	26.73	49.1	26.75	49.02	26.77	48.75	26.79	49.09	26.74	52.59	26.84	48.88	26.89	49.63
22	2021/8/9 9:31	26.74	51.71	26.72	48.92	26.76	48.86	26.8	48.69	26.79	49.01	26.74	52.5	26.84	48.82	26.86	49.48
23	2021/8/9 9:31	26.72	51.73	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	49.61
24	2021/8/9 9:32	26.68	51.3	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	49.61
25	2021/8/9 9:33	26.56	51.23	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	49.61
26	2021/8/9 9:33	26.72	51.59	26.73	48.69	26.75	48.56	26.78	48.37	26.79	48.9	26.73	52.32	26.81	48.62	26.86	49.45
27	2021/8/9 9:34	26.72	51.5	26.72	48.66	26.73	48.56	26.74	48.33	26.78	48.73	26.7	52.17	26.81	48.49	26.86	48.2
28	2021/8/9 9:34	26.71	51.35	26.71	48.46	26.72	48.52	26.76	48.33	26.75	48.66	26.71	52.09	26.81	48.43	26.89	49.14
29	2021/8/9 9:35	26.68	51.47	26.71	48.65	26.73	48.58	26.76	48.51	26.77	48.89	26.73	52.3	26.77	48.46	26.85	49.21
30	2021/8/9 9:32	26.69	49.12	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	49.61
31	2021/8/9 9:32	26.69	51.07	26.71	48.16	26.69	48.09	26.71	47.93	26.75	48.24	26.7	51.74	26.73	48.09	26.83	47.64
32	2021/8/9 9:37	26.68	51.09	26.68	48.18	26.69	48.19	26.71	47.94	26.74	48.25	26.7	51.75	26.74	48.08	26.79	47.77

EXCEL table export preview

序号	时间标识	1#温度	2#温度	3#温度	4#温度	5#温度	6#温度	7#温度	8#温度	9#温度	10#温度	11#温度	12#温度	13#温度	14#温度	15#	
1	21-08-05 09:20:38	27.03	54.58	27.06	51.87	27.06	51.68	27.09	51.45	27.12	51.83	27.05	55.16	27.13	51.58	27.17	51.32
2	21-08-05 09:21:08	27.05	54.31	27.06	51.58	27.07	51.57	27.07	51.37	27.09	51.71	27.07	55.11	27.10	51.48	27.18	51.22
3	21-08-05 09:21:38	27.03	54.26	27.04	51.45	27.04	51.50	27.07	51.29	27.09	51.60	27.05	54.95	27.10	51.39	27.16	51.09
4	21-08-05 09:22:08	27.02	54.33	27.06	51.66	27.04	51.67	27.09	51.30	27.10	51.66	27.07	55.02	27.09	51.41	27.14	51.09
5	21-08-05 09:22:38	27.03	53.82	27.04	51.07	27.03	51.03	27.07	50.85	27.10	51.18	27.04	54.49	27.09	50.95	27.13	50.64
6	21-08-05 09:23:08	27.01	53.77	27.01	51.10	27.04	51.06	27.07	50.85	27.09	51.17	27.00	54.44	27.06	50.89	27.10	50.69
7	21-08-05 09:23:38	26.98	53.63	27.01	50.91	27.03	50.88	27.02	50.63	27.05	50.95	26.98	54.30	27.05	50.69	27.11	50.38
8	21-08-05 09:24:08	26.96	53.58	26.99	50.85	26.96	50.77	27.01	50.66	27.03	50.92	26.97	54.33	27.02	50.77	27.10	50.46
9	21-08-05 09:24:38	26.98	53.46	26.99	50.70	26.97	50.65	27.01	50.50	27.02	50.74	26.98	54.16	27.04	50.55	27.10	50.20
10	21-08-05 09:25:08	26.95	53.42	26.96	50.64	27.00	50.52	26.98	50.29	27.00	50.62	26.98	53.95	27.04	50.42	27.07	50.17
11	21-08-05 09:25:38	26.91	53.28	26.92	50.56	26.94	50.32	26.96	50.12	27.00	50.45	26.91	53.88	27.01	50.30	27.04	50.06
12	21-08-05 09:26:08	26.91	53.14	26.92	50.43	26.93	50.30	26.96	50.09	26.96	50.42	26.93	53.97	27.01	50.27	27.03	49.99
13	21-08-05 09:26:38	26.89	53.02	26.90	50.09	26.93	50.17	26.93	49.94	26.96	50.24	26.89	53.69	26.99	50.09	27.03	49.75
14	21-08-05 09:27:08	26.85	52.70	26.87	49.92	26.93	49.92	26.91	49.68	26.95	49.93	26.89	53.39	26.95	49.81	27.00	49.48
15	21-08-05 09:27:38	26.84	52.77	26.86	49.96	26.87	49.91	26.93	49.71	26.92	49.99	26.87	53.50	26.95	49.81	26.99	49.40
16	21-08-05 09:28:09	26.85	52.30	26.82	49.50	26.87	49.44	26.88	49.17	26.90	49.55	26.84	53.01	26.91	49.31	26.99	49.06
17	21-08-05 09:28:39	26.79	52.38	26.81	49.62	26.86	49.50	26.87	49.26	26.89	49.69	26.84	53.08	26.83	49.45	26.94	49.19
18	21-08-05 09:29:09	26.79	52.17	26.81	49.39	26.83	49.32	26.87	49.07	26.86	49.43	26.80	52.88	26.91	49.23	26.94	48.94
19	21-08-05 09:29:40	26.78	51.95	26.75	49.21	26.80	49.15	26.81	48.92	26.83	49.25	26.77	52.67	26.85	49.01	26.92	48.76
20	21-08-05 09:30:10	26.75	51.98	26.75	49.20	26.77	49.10	26.80	48.89	26.82	49.29	26.76	52.77	26.84	49.04	26.92	48.79
21	21-08-05 09:30:40	26.75	51.95	26.73	49.10	26.75	49.02	26.77	48.75	26.79	49.09	26.74	52.59	26.84	48.88	26.89	48.63
22	21-08-05 09:31:11	26.74	51.71	26.72	48.92	26.76	48.86	26.80	48.69	26.79	49.01	26.74	52.50	26.84	48.82	26.86	48.48
23	21-08-05 09:31:41	26.72	51.73	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	48.61
24	21-08-05 09:32:11	26.68	51.30	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	48.61
25	21-08-05 09:33:00	26.56	51.23	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	48.61
26	21-08-05 09:33:52	26.72	51.59	26.73	48.69	26.75	48.66	26.78	48.37	26.79	48.90	26.73	52.32	26.81	48.62	26.86	48.45
27	21-08-05 09:34:22	26.72	51.50	26.72	48.66	26.73	48.66	26.74	48.38	26.78	48.73	26.70	52.17	26.81	48.49	26.86	48.20
28	21-08-05 09:34:53	26.71	51.35	26.71	48.46	26.72	48.52	26.76	48.38	26.75	48.66	26.71	52.09	26.81	48.43	26.89	48.14
29	21-08-05 09:35:23	26.68	51.47	26.71	48.65	26.73	48.68	26.76	48.51	26.77	48.89	26.73	52.30	26.77	48.46	26.85	48.21
30	21-08-05 09:32:48	26.69	41.12	26.71	48.91	26.76	48.86	26.76	48.69	26.81	49.08	26.74	52.49	26.81	48.87	26.86	48.61
31	21-08-05 09:37:27	26.69	51.07	26.71	48.16	26.69	48.09	26.71	47.93	26.75	48.24	26.70	51.74	26.78	48.09	26.83	47.84
32	21-08-05 09:37:57	26.68	51.09	26.68	48.18	26.69	48.19	26.71	47.94	26.74	48.25	26.70	51.75	26.74	48.08	26.79	47.77

TXT text export preview

Wiring mode

Wiring method (Sensor)		Wiring method (Output)	
	V+ PWR+	V+	PWR+
	V- PWR-	V-	PWR-
	A+ RS485 A+	A+	RS485 A+
	B- RS485 B-	B-	RS485 B-

※Note: When wiring, connect the positive and negative poles of the power supply first, and then connect the signal wire.

Built-in memory chip

Built-in 8MB memory chip can record tens of thousands of records



Wiring instructions

In the case of broken wires, wire the wires as shown in the figure. If the product itself has no leads, the

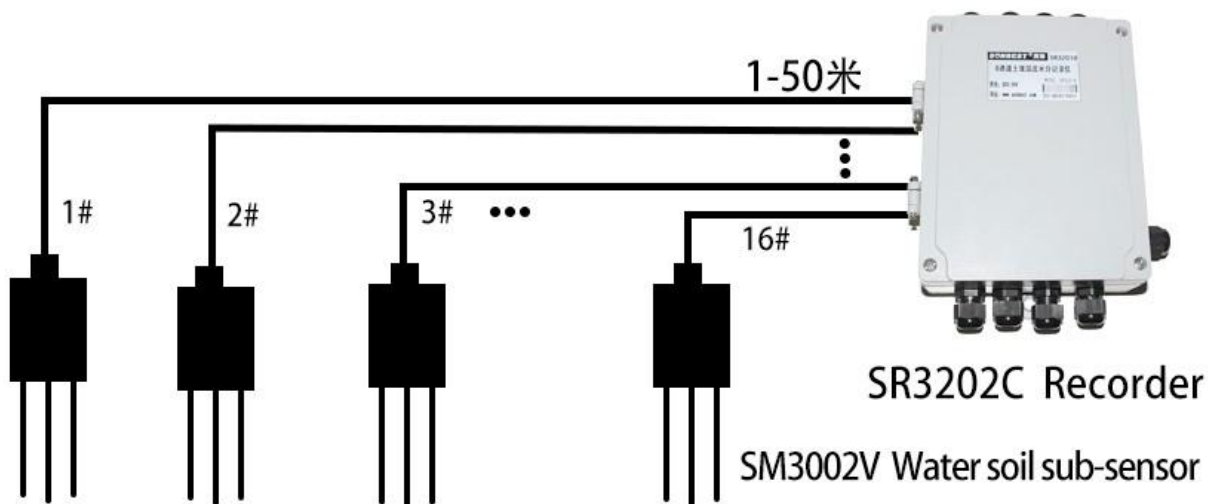
core color is for reference.

How to use?

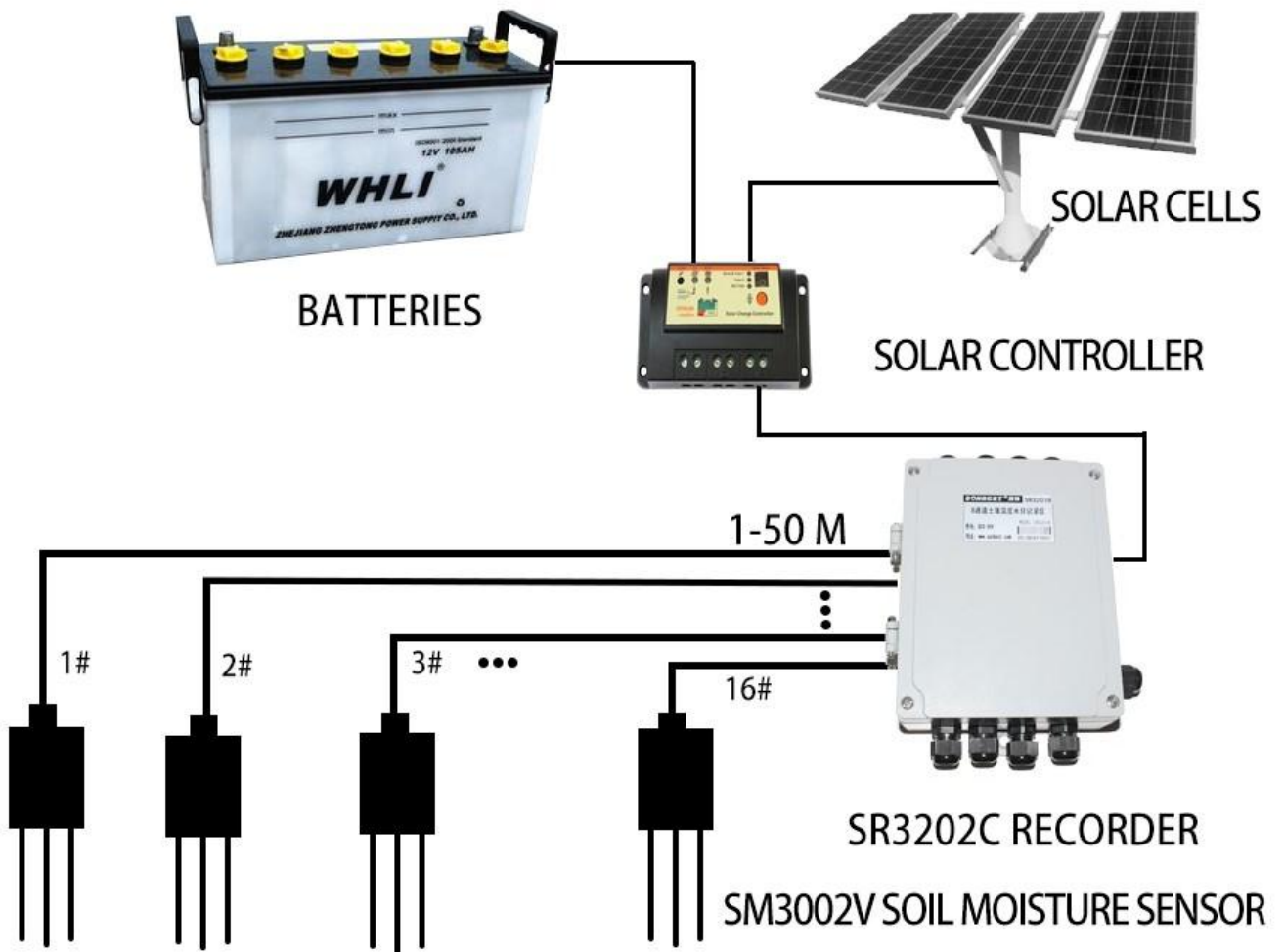
Soil temperature and humidity recorder can be widely used in greenhouses, plant cultivation, water-saving irrigation, sewage treatment, grassland pastures, etc



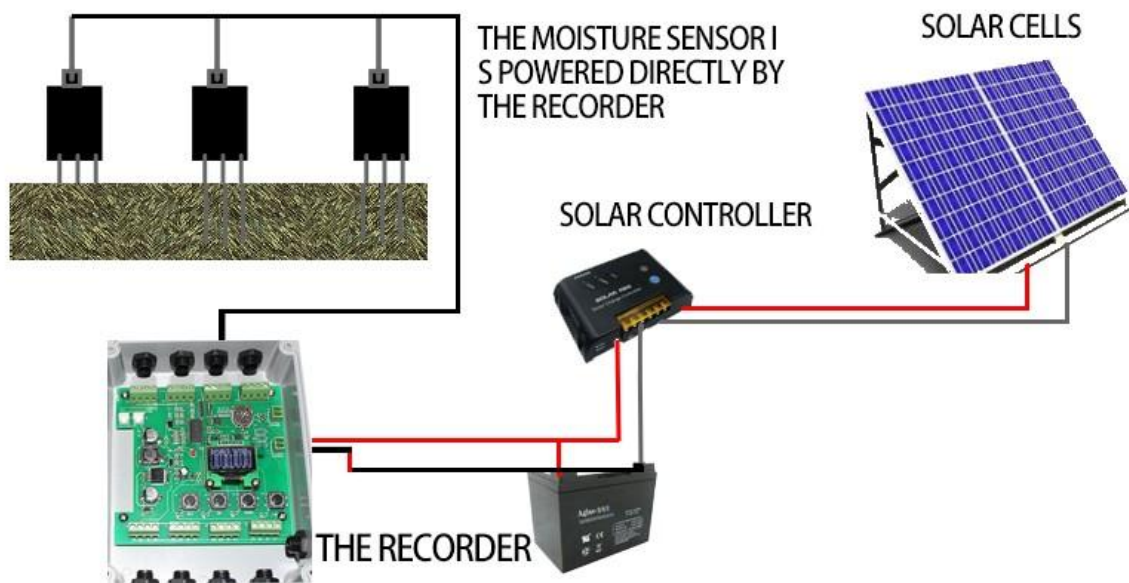
Application solution



Built-in lithium battery sleep with working mode



EXTERNAL SOLAR POWER SUPPLY MODE



Product List



RS485 16通道
土壤温湿度记录仪



温馨提示卡



Communication Protocol Disclaimer

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