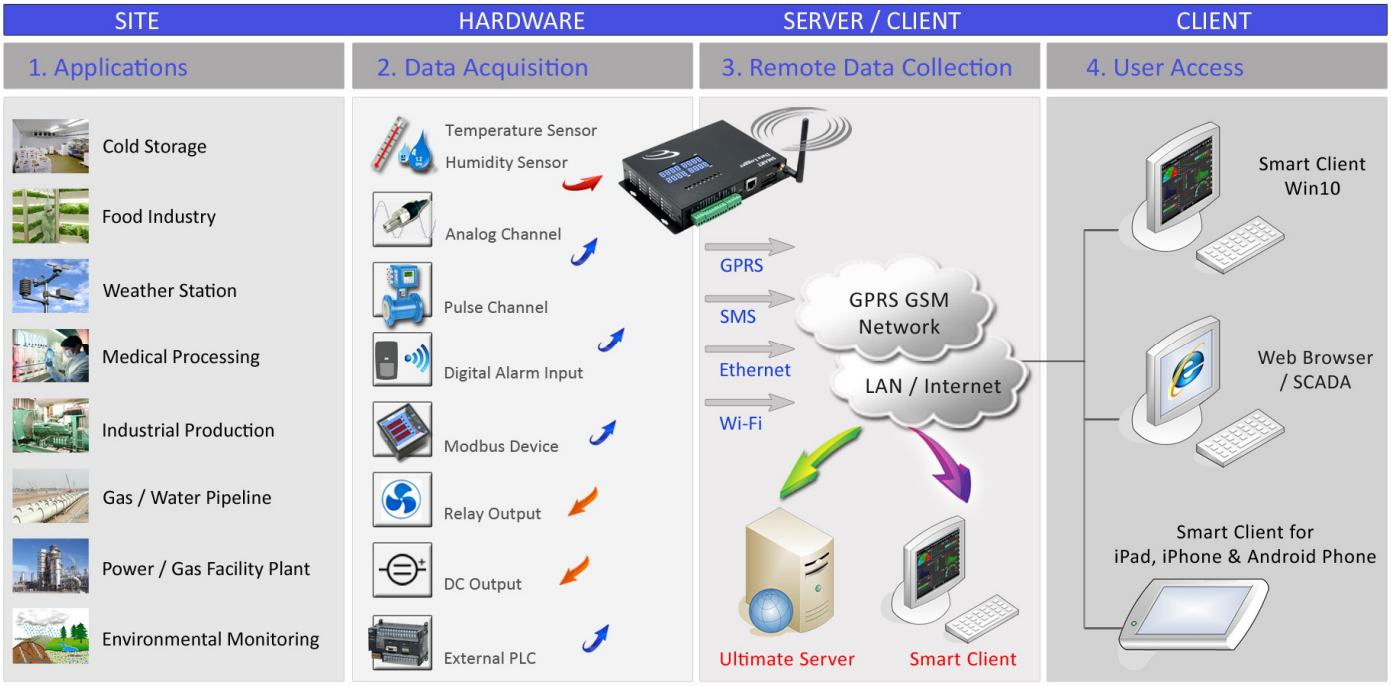
Sensors, Transducers, Accessories

connecting to Data Loggers ...

Measuring devices e.g. sensors and accessories are as important as a Data Logger.

It provides reliable and accurate data source for monitoring.



Special points of interest:

- All sensors, transducers and accessories are certified to work with data loggers
- Some models of data loggers are designed dedicatedly to measuring devices in this catalogues
- Please specify your application or ask our engineers' advice for recommended models

Tracking

- *Environmental Temperature, Humidity*
- *River Temperature*
- *Wind Speed, Wind Direction*
- *Rain Level*
- *CO2 Content*
- *Water Flow & Level*
- *Power Monitoring*

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Certified sensors or measuring devices for better compatibility and data accuracy.
All sensors can be connected to GSX4, GSX8, GS828, GSMS and SMSPro series directly.

Sensors for TEMP or HUM channel

All are powered by GS828 internal 5V DC output

Digital Temperature & Humidity Combo Sensor

TH_V3

Temperature Sensor:	DS18B20
Measuring Range:	-50 ~ 125 °C
Accuracy:	+-0.5 °C
Humidity Sensor:	CHM-01A
Measuring Range:	0 ~ 100% RH
Accuracy:	+- 3% RH
Operating Voltage:	5VDC
Enclosure:	PVC Housing
Cable Length:	standard 2 meter
Extended Cable:	> 150 meter



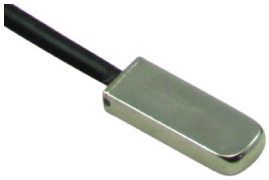
Digital Temperature Sensor

T_V2

Sensor:	DS18B20
Measuring Range:	-50 ~ 125 °C
Accuracy:	+-0.5 °C
Operating Voltage:	5VDC
Enclosure:	Steel Housing
Cable Length:	standard 2 meter
Extended Cable:	> 150 meter



T_V2S Surface Mounted



Sensors for AD analog channel

Some are powered by GS828 internal DC output

Industrial Grade
Pt100 Temperature Transducer



T_A2 **Aluminum Housing**
T_A1 **PVC Housing**

Sensor:	pt100
Measuring Range:	-200 ~ 400 °C
	To be specified by user
Accuracy:	+-0.2 / 0.5 °C
Operating Voltage:	12 or 24VDC
Extended Cable:	> 100 meter
Output Signal:	4~20mA



H_A4 **Humidity Transducer**

Sensor:	CHM-03A
Measuring Range:	0 ~ 100%RH
Accuracy:	+-2% RH
Operating Voltage:	24VDC
Enclosure:	PVC Housing
Extended Cable:	> 100 meter
Output Signal:	4~20mA



T_A4 **Temperature Transducer**

Sensor:	pt1000
Measuring Range:	0 ~ 80 °C
Accuracy:	+-0.5 °C
Operating Voltage:	12 or 24VDC
Enclosure:	PVC Housing
Extended Cable:	> 100 meter
Output Signal:	4~20mA

Some sensors can be powered by the data logger's internal voltage output.

GSX4, GSX8 & GS828H/L	Internal Output: 5VDC, 1A	T-V2, TH-V3 Current Rating: 1~3mA
GSX8-L, GS828L	Internal Output: 24VDC, 1A	T-A1/2/4, H-A4 Current Rating: 1~3mA

Weather Station
GPRS Data Logging System

Sensors are directly connected to AD channel of GSX8 Data Loggers.

It will be powered by the data logger internal voltage output.

In sleep mode, the power will be turned off automatically by the data logger to save energy.



GSX8-HVC

Solar Panel Controller built-in

GSX8-HVC/LC provides one single solution of logging temperature/humidity/rain fall/wind speed/wind direction for weather station monitoring.

Weather Station Mounting		
Height:	Standard	1m
	Optional	2.5m
Material:	Stainless Steel	
Mounting:	1. Tripod Mount	
	2. Base Mount	
Sensors & Accessories excluded		

Sensor Sunshield



8 Layers Shielding

Mounting for Sensors of:

Temperature, Humidity, Pressure



WD100

Wind Direction Sensor





WS100

Wind Speed Sensor

Specification	**Wind Speed & Direction Sensor**	
	Wind Speed Sensor	**Wind Direction Sensor**
Range	0~45 (default) or 75m/s	0~360°
Accuracy	+/- (0.3 + 0.03V) m/s	0.1% Linear
Resolution	0.1 m/s	1°
Start Up Wind Speed	< 0.5 m/s	< 0.8 m/s
Output	Square Wave Pulse	0~5k W (+- 15%)
Transducer Output	4 ~ 20mA	4 ~ 20mA
Operation Voltage	DC 24V or 12V	DC 24V or 12V
Max. Rating	10mA	10mA
Operation Temperature	-40 ~ 50 °C	-40 ~ 50 °C
Weight	< 0.5kg	< 0.5kg



RST323

Tipping Bucket Rain Gauge

Specification	**Tipping Bucket Rain Gauge**
Output:	0.1 second switch closure
Switch:	Sealed reed switch
Contact rating:	0.02 amps, 5~15 VDC
Sensitivity:	0.1mm each pulse
Accuracy:	+/- <0.2mm
Range:	0.01mm ~ 8mm / minute
Size:	220mm∅ dia x 560mm high, 2kg
Mounting:	3 legs, M4x20 diameter bolt holes on
Material:	Steel

Water Supply / Quality
GPRS Data Logging System

GSX8-LS provides one single solution of logging temperature/ humidity/water level/flow rate for water supply monitoring.

Sensors are directly connected to Modbus interface of GSX8-LS Data Loggers.



Sensors will be powered by the data logger internal voltage output.

In sleep mode, the power will be turned off automatically by the data logger to save energy.

Soil Humidity Sensor

Measuring Unit:	% (m3/m3)
Range:	0 ~ 100%
Signal Output:	4~20mA
Measuring Area:	90%
Diameter/ Height:	3cm / 6cm
Material:	anti-corrosive ABS PVC
Probe:	Stainless Steel , Water Proof Housing



Level Transducer [Pressure Type]

* Water/Oil Level Transducer
* IP68 Enclosure
* 0-1, 2, 5, 20, 200 m (bar) range
* 12~24VDC power
* Output: 4~20mA
* Operating Temperature: -40 ~ 80 °C
* Optional anti-corrosive enclosure
* Accuracy: B (0.5% - default), C (0.25%)

* Drop in type
* Anti-corrosive



Screw in type



Drop in type

Oil/Gas/Steam Flow Meter [pulse type]

Measuring Unit:	10m^3 each pulse
	100m^3 each pulse
Range:	20 ~ 500m^3 /h
Signal Output:	pulse type
DIN:	15 ~ 50mm
Liquid & Gas:	Diesel, Oil, Steam



Measuring Unit:	10m^3 each pulse
	100m^3 each pulse
Range:	20 ~ 500m^3 /h
Signal Output:	pulse type
DIN:	15 ~ 50mm
Option:	hot water



Water Meter [pulse type]

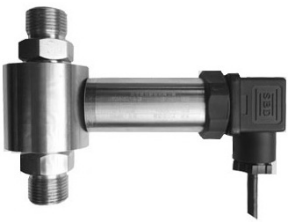
Air Pressure Sensor

Range:	0-1.5Bar
Signal Output:	4~20mA
Accuracy:	0.2%
Probe:	Stainless Steel



Differential Pressure Sensor

Range:	0-5Bar
Signal Output:	4~20mA
Accuracy:	0.2%
Probe:	Stainless Steel



Ultrasonic Level Transducer

Measuring Range	0 ~ 10 meter, optional 20/50m
Accuracy	025 ~ 05%
Resolution	3mm or 0.1%
LCD display	2 rows optional
Analog Signal	4 ~ 20mA, 250 ohm
Power Source	24VDC or 220VAC
Operation	-20 ~ 60 °C
Enclosure	meter – IP65, sensor – IP68



no LCD



with LCD

Light Sensor



Measuring Range:	0 ~ 200K lux
Spectral Range:	400 ~ 700nm
Accuracy:	+/- 5%
Operating Voltage:	12-24VDC
Output:	4~20mA
Enclosure:	PVC IP65 Water Proof Housing
Application:	Green House, Agriculture

Solar Radiation Sensor



Measuring Range:	0 ~ 1500W/m2
Spectral Range:	300 ~ 3000nm
Accuracy:	+/- 3%
Operating Voltage:	12-24VDC
Output:	4~20mA
Enclosure:	Aluminum IP65
Application:	Solar Power Industry

CO2 Sensor



Measuring Range:	0 ~ 5000ppm
Resolution:	+/- 10ppm
Accuracy:	+/- 5%
Operating Voltage:	12-24VDC
Output:	4~20mA
Enclosure:	PVC IP65
	Weather Proof Housing

Air Pressure Sensor



Measuring Range:	15 ~ 115KPa
Accuracy:	+/- 2%
Operating Voltage:	12VDC
Output:	4~20mA
Enclosure:	PVC IP65

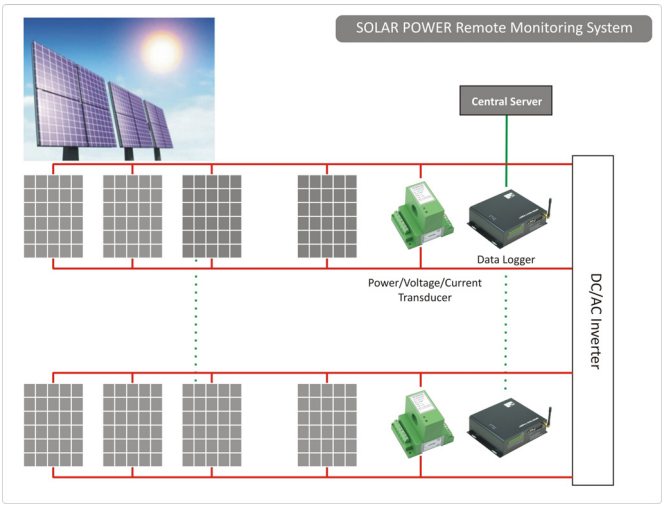


Matching to GSX8 Data Logger

Signal Converter

0-5Vdc	>	4-20mA
0-10Vdc	>	4-20mA
0-20mA	>	4-20mA
0-xx Vdc	>	4-20mA
0-xx Adc	>	4-20mA

Solar & Wind Power Monitoring & Logging System



* GPRS Modbus Data Logger
* Voltage/Current/Power Transducer



Multi-parameters Transducer

1. RS485 Modbus standard interface
2. Range: 0 ~ max. 1000V, 0 ~ 500A
3. Measuring AC or DC Voltage, Current, Positive or Negative Power
4. Designed for power or wind power generating system
5. Accuracy: 0.2 F.S.

More sensors, transducers or meters can be connected with GSX8 via Modbus RS232/485 port.



1. Water Flow Meter (pulse type, or RS485 type)
2. Power Meter
3. Current/Voltage/Power Transducer
4. Gas Flow Meter



Water Flow Meter
Pulse or Modbus RS485 Type



Power Meter
Modbus RS485