



EAC



# PRODUCT CATALOGUE

**AUTOMATIC TANK GAUGING**

**TANK REMOTE MONITORING**

**LEAK DETECTION SENSOR**



 **WINDBELL M&C**

 **PEI**  
MEMBER

## COMPANY

Zhengzhou Windbell Measurement and Control Technology Co., Ltd formerly known as the Automatic Tank Gauge(ATG) Department of Zhengzhou Windbell Electric Co., Ltd., the department was established in 2005, focusing on the R&D, manufacture, sale and service of ATG. In 2014, it was officially registered as Zhengzhou Windbell Measurement and Control Technology Co., Ltd and was identified as a high-tech enterprise in 2016. In December 2017, as a result of the Group's overall business needs, Windbell M&C was incorporated into Beijing Sanki Petroleum Technology Co., Ltd. and was officially changed to a wholly-owned subsidiary of Sanki Industry Group.

After 12 years of development, Windbell series Automatic Tank Gauge products have been installed and used in over 12,000 sites, and more than 2,000 sites have been installed and used our Leak Detection products. Windbell has a wealth of experience and ability to supply high quality products and best service for customers all around the world.

With Windbell, monitor and manage your sites in real time!

	
<p style="text-align: center;"><b>Industry Expert</b></p> <ul style="list-style-type: none"> <li>● R&amp;D general building 10000 square meters.</li> <li>● 12 years manufacturing and development experience.</li> <li>● ISO9001:2015, ISO140001:2015, OHSAS 18001:2007 certificates approved.</li> <li>● PEI member since 2010.</li> <li>● Several complete professional product lines, can meet specific application requirements.</li> </ul>	<p style="text-align: center;"><b>High Productivity</b></p> <ul style="list-style-type: none"> <li>● Standard workshop 17500 square meters.</li> <li>● 20000 probes per year.</li> <li>● 5000 consoles per year.</li> <li>● 20000 leak sensors per year.</li> </ul>
	
<p style="text-align: center;"><b>Excellent Products</b></p> <ul style="list-style-type: none"> <li>● Obtained several proprietary intellectual property rights</li> <li>● ATEX, EAC, CQST and CMC approved.</li> <li>● Modern, professional and customized design.</li> <li>● Tailor-made functions and solutions.</li> </ul>	<p style="text-align: center;"><b>Satisfactory Service</b></p> <ul style="list-style-type: none"> <li>● Well-trained professional service team and engineers.</li> <li>● Quick response, high service efficiency.</li> <li>● Well technical service before and after sales.</li> <li>● Technical training at site or Windbell company.</li> <li>● Remote support for any problems during using.</li> <li>● Reliable, safe and fast delivery of products.</li> </ul>



# CERTIFICATES

			
<b>ATEX certificate</b>	<b>EAC certificate</b>	<b>ISO9001:2015</b>	<b>ISO140001:2015</b>
			
<b>OHSAS 18001:2007</b>	<b>Explosion proof certificate</b>	<b>Patent certificate</b>	<b>AAA level credit certificate</b>
			
<b>China Metrology Certificate</b>	<b>National Industrial Product Production License</b>	<b>High-tech enterprise certificate</b>	<b>Explosion-proof electrical installation and repair qualification certificate</b>

## CASES AND APPLICATION



**PetroChina**



**SINOPEC**



**GAS STATION (Indonesia)**



**GAS STATION (Sudan)**



**FUEL DEPOT**



**SKID-MOUNTED STATION**



**LPG STATION**



**LEAK DETECTION (Double-wall Tank and Pipeline)**



## OUR PRODUCTS

The majority of the products developed and manufactured by Windbell M&C covers storage tank monitoring system, gas station leak detection system, tank area intelligent security equipment, fuel inventory management software and other optional device which can be used at gas station, LPG station, fuel depot, mobile fueling site and chemical plant.

Product Family	Detailed Products	
	Name	Model
Storage Tank Monitoring System	Tank gauge console	SS160Plus
		SS600
		SS200
	Magnetostrictive probe	SP300
	Magnetostrictive probe (AdBlue)	SP300-NS
	Magnetostrictive density probe	SP300D
	Magnetostrictive LPG probe	SP300-LPG
	Magnetostrictive flexible probe	
Fuel Inventory Management Software	PC remote software	PCR200
	RS-II software	RS-II
	GAS software	GAS
	iTank APP	IOS/Android
Gas Station Leak Detection System	Tank interstice sensor	CLS100 (Float type)
	Pipe interstice sensor	CLS100-A (Float type)
	Leak alarm controller	CLK100
	Tank interstice sensor	CLS200 (Optical type)
	Pipe interstice sensor	CLS200 (Optical type)
	Tank sump sensor	CLS200 (Optical type)
	Dispenser sump sensor	CLS200 (Optical type)
	Leak alarm controller	CLK200
Tank Area Intelligent Security Equipment	Anti-overfill valve	DFV100-65 DFV100-80
	Anti-overfill valve controller	DFV100
	Tank level display	WB-TSD
	Submersible pump console module	EM02
Optional Device	Built-in printer	SP-RMD6A
	SMS module	4G
	GPRS module	4G
	Sound-light alarm	BBJ-Z/RE

PRODUCT SELECTION					
Name	Model	Gas/LPG station	Fuel depot	Mobile fueling site	Chemical plant
					
Tank gauge console	SS160Plus	✓		✓	✓
	SS600		✓		✓
	SS200	✓	✓	✓	✓
Magnetostrictive probe	SP300	✓		✓	
Magnetostrictive probe (AdBlue)	SP300-NS				✓
Magnetostrictive density probe	SP300D	✓		✓	
Magnetostrictive LPG probe	SP300-LPG	✓			
Magnetostrictive flexible probe		✓	✓		✓
PC remote software	PCR200	✓	✓	✓	✓
RS-II software	RS-II	✓	✓	✓	✓
GAS software	GAS	✓	✓	✓	✓
iTank APP	IOS/Android	✓	✓	✓	✓
Tank interstice sensor	CLS100 (Float type)	✓			
Pipe interstice sensor	CLS100-A (Float type)	✓			
Leak alarm controller	CLK100	✓			
Tank interstice sensor	CLS200 (Optical type)	✓			
Pipe interstice sensor	CLS200 (Optical type)	✓			
Tank sump sensor	CLS200 (Optical type)	✓			
Dispenser sump sensor	CLS200 (Optical type)	✓			
Leak alarm controller	CLK200	✓			
Anti-overfill valve	DFV100-65 DFV100-80	✓			
Anti-overfill valve controller	DFV100	✓			
Tank level display	WB-TSD	✓			
Submersible pump console module	EM02	✓			
Built-in printer	SP-RMD6A	✓	✓	✓	✓
SMS module	4G	✓	✓	✓	✓
GPRS module	4G	✓	✓	✓	✓
Sound-light alarm	BBJ-Z/RE	✓	✓	✓	✓



### DESCRIPTION

The tank gauge console offers a multi-function operation platform on colorful touch display. High-accuracy and strong data process ability, greatly improve the management efficient and save costs! The reliable performance have highly reputations from thousands station owners.

### FEATURES

- International graphic touch screen and user-friendly icons, easy to use.
- Standard measurement unit, mm or inch, liter or gallon, meet different requirements from different countries.
- Display product volume and water volume, ullage, product level and water level, and product temperature for individual tanks.
- Reports include current inventory, delivery history, alarm, shift, leak, system log, SMS.
- Language optional, support Chinese, English, Spanish, Portuguese, French, Russian, Mongolian, Bahasa Indonesia and Cambodian, will have more in the future.
- Support import & export data, tank volume table import, very convenient for console configuration.
- Monitor up to 12 probes (tanks). Standard configuration is 6 probes.
- Monitor up to 40 leak sensors.
- Printing reports by external printer or optional built-in printer without any software.
- Automatic alarm function can show any abnormal status of tanks.
- Administrator password, different authorization, safe management.
- Compatible with PC remote software on site's computer.
- Support standard static or dynamic leak detection on 0.38 L/H or 0.76 L/H.
- Optional density probe can monitor product quality. Fuel density can be shown in real time on the console.



**SS160Plus**






**SS200**



**SS600**

## PARAMETERS

Model	SS160Plus	SS200	SS600
			
Power	AC220V +/- 10%, 50/60Hz	90 ~ 264VAC, 127 ~370VDC	AC220V +/- 10%, 50/60Hz
Working temperature	-20 to 60℃ (-4 to 140F)	-20 to 60℃ (-4 to 140F)	-20 to 60℃ (-4 to 140F)
Display	8 inch LCD touch screen, 800x600 resolution	12 inches LCD touch screen	8 inch LCD touch screen, 800x600 resolution
Ex-proof grade	[EX ia Ga]IIA	[EX ia Ga]IIB	[EX ia Ga]IIA
Monitor probes	Up to 9	Up to 32	Up to 9
Leak sensor	Yes, 40 max	Yes, 64 max	Yes, 40 max
Relay output	2 groups. Node capacity AC250V/3A. DC30V/3A	2 groups. Node capacity AC250V/3A. DC30V/3A	2 groups. Node capacity AC250V/3A. DC30V/3A
SMS module	Optional	Optional	Optional
GPRS module	Optional	Optional	Optional
WIFI function	No	Optional	No
Inventory and delivery management	Yes	Yes	Yes
Static and continuous tank testing	Yes	Yes	Yes
Density and mass measurement	Yes	Yes	Yes
Output voltage	DC 12V	DC 12V	DC 24V
Safety barrier	WB-GSB03	WB-GSB06, WB-GSB-CL06	WB-GSB03 (24V)
Built-in printer	Optional	Optional	Optional
External printer	Yes	Yes	Yes
RS485 port	1	1	1
RS232 port	2	3	2
USB port	1	1	1
Ethernet port	1	1	1
Buzzer alarm	Yes	Yes	Yes
External sound-light alarm	Yes	Yes	Yes
Tank table	Yes, simulate/input/upload	Yes, simulate/input/upload	Yes, simulate/input/upload
Reports	Yes	Yes	Yes
PC remote software	PCR200	PCR200	PCR200
Anti-theft function	Yes	Yes	Yes
Dimension (L*W*H)	30×23×14.5 cm	36×28×11 cm	30×23×14.5 cm
Application	<ul style="list-style-type: none"> <li>Gas/LPG station</li> <li>Mobile fueling site</li> <li>Chemical plant</li> </ul>	<ul style="list-style-type: none"> <li>Gas/LPG station</li> <li>Fuel depot</li> <li>Mobile fueling site</li> <li>Chemical plant</li> </ul>	<ul style="list-style-type: none"> <li>Fuel depot</li> </ul>



**SP300**
**Magnetostriuctive Probe**

**DESCRIPTION**

Windbell SP series magnetostriuctive probe take advantage of Wiedemann effect, Villari effect and Ultrasonic effect of intelligent material, by measuring time value difference which can be easily measured with high-precision, to convert to displacement difference, can accurately measure the product level, water level, and temperature for individual tanks.


**FEATURES**

- Real time data transmission.
- Five-point temperature sensing.
- Digital signal transmit with anti-interruption ability.
- Maximum communication distance: 1200m.
- High precision as 0.5mm and resolution as 0.01mm.
- Leak Detect function: Standard--- 0.38L/H or 0.76L/H.
- More reliable, environment friendly, could be used in torrid climate and freezing climate.
- Non-corrosion 316 stainless steel ensure longer lifetime in most petroleum products.
- Trouble-free, easy to install and operate.
- IP68 protection grade.

**PROBE FLOAT KITS**

Picture						
Type	Oil floater	Water floater	Oil floater	Water floater	Oil floater	Water floater
Material	NBR	PP	NBR	NBR	SS	SS
Size	Φ52*40	Φ56*79.5	Φ48*59.5	Φ48*79.5	Φ45*Φ21*58	Φ45*Φ21*58

## PARAMETERS

Power supply	DC12V
Precision	±0.5mm
Repeatability	±0.1mm
Resolution of product level	0.0069mm
Resolution of temperature	0.0078℃
Resolution of water level	0.0069mm
Temperature range	-40 to 85℃ (-40 to 185°F)
Points of temperature measured	5
Maximum communication distance	1200m
Communication	RS485
Intrinsic safety parameter	Power port: $U_i = 15V$ DC, $I_i = 400mA$ , $P_i = 1.5W$ , $C_i = 3.63\mu F$ , $L_i = 0mH$ ; Signal port: $U_i = 7.14V$ DC, $I_i = 147mA$ , $P_i = 260mW$ , $C_i = 32.6\mu F$ , $L_i = 0mH$ ;
Associated apparatus	WB-GSB03 safety barrier
Explosion proof grade	Ex ia II A T4 Ga,  II 1G Ex ia IIA T4 Ga
Protection grade	IP68
Applicable medium	Gasoline, kerosene, diesel, Ethanol gasoline, Methanol gasoline, Approved light oil
Definition of wires	<div>Blue      Power +</div> <div>Brown    RS485A</div> <div>White    RS485B</div> <div>Black     Power -</div>
Communication address	6 digits, see the "Manufacturing code" or S/N code on probe nameplate, this is also Probe ID in communication with console and FMS



## SP300-NS

### Magnetostrictive Probe

*Available for AdBlue*



#### DESCRIPTION

SP300-NS Magnetostrictive probe is specially designed for chemical storage tanks, can accurately measure product level and temperature for individual tanks. Available for AdBlue !

#### FEATURES

- Real time data transmission.
- Five-point temperature sensing.
- Digital signal transmit with anti-interruption ability.
- Maximum communication distance: 1200m.
- High precision as 0.5mm and resolution as 0.01mm.
- Leak Detect function: Standard--- 0.38L/H or 0.76L/H.
- More reliable, environment friendly, could be used in torrid climate and freezing climate.
- Non-corrosion 316 stainless steel ensure longer lifetime in most petroleum products.
- Trouble-free, easy to install and operate.
- IP67 protection grade.

#### PROBE FLOAT KITS



Picture	
Type	Product floater
Material	SS
Size	Φ57*71

## SP300D

### Magnetostrictive Density Probe





#### DESCRIPTION

The Magnetostrictive density probe can accurately measure the product level, water level, temperature and density for individual tanks.

#### FEATURES

- Real time data transmission.
- Five-point temperature sensing.
- Digital signal transmit with anti-interruption ability.
- Maximum communication distance: 1200m.
- High precision as 0.5mm and resolution as 0.01mm.
- Leak Detect function: Standard--- 0.38L/H or 0.76L/H.
- More reliable, environment friendly, could be used in torrid climate and freezing climate.
- Non-corrosion 316 stainless steel ensure longer lifetime in most petroleum products.
- Trouble-free, easy to install and operate.
- IP67 protection grade.

#### PROBE FLOAT KITS

Picture		
Type	Density floater	Water floater
Material	NBR	PP
Size	Φ95*177.5	Φ56*79.5

#### DENSITY MEASUREMENT

Measuring range	Gasoline: 700~780 kg/m <sup>3</sup> Diesel: 810~890 kg/m <sup>3</sup>
Accuracy	± 1kg/m <sup>3</sup>
Measurement resolution	± 0.00081kg/m <sup>3</sup>
Repeatability	± 0.5kg /m <sup>3</sup>

## SP300-LPG

### Magnetostrictive Probe For LPG Tanks



#### DESCRIPTION


LPG probe is a new probe in Windbell probe family. With the probe, can accurately measure the product level and take completely control of LPG inventory, also can transmit data to console in real time.

The probe consist of SS floater kits, casing tube, flange, measuring rod, SS316L protection tube and probe head.

#### FEATURES

- Stainless steel structure, corrosion and impact resistance.
- Intrinsically safe explosion-proof design.
- Non-contact measurement, long service life.
- Good repeatability, stable and reliable.
- Anti-surge, anti-interference.
- No need for regular calibration and maintenance.
- High precision and resolution.
- Exquisite structure, strong environment adaptability.
- Reverse polarity protection.
- Convenient installation and maintenance.

#### PROBE FLOAT KITS

Type	LPG floater	Picture	
Material	SS	Integrated density	0.4~0.45g/cm <sup>3</sup>
Size	Φ90*Φ25*90	Pressure resistant	≥3.5MPa

#### PARAMETERS

Probe			
Model	LPG-1500	Working temperature	-40℃ - 60℃
Working voltage	12V DC	Temperature accuracy	±0.2℃
Accuracy	±0.5mm	Temperature sensor	5
Resolution	0.007mm	Working pressure	1.6MPa
Repeatability	±0.1mm	Protection grade	IP68
Explosion proof mark	Ex ia II A T4 Ga	Communication distance	1200m
Associated apparatus	GSB03 safety barrier		
Mounting sleeve of probe			
Model	DN100/Φ24*2	Pressure resistant	≥3.5MPa



## Magnetostrictive Flexible Probe For Fuel Depot



### DESCRIPTION

The magnetostrictive flexible probe adopt magnetostrictive measurement technology to report inventory levels in storage tanks. The flexible probe satisfy the demand for a digital communication interface that offers the liquid level market unsurpassed flexibility to meet most process application conditions. The magnetostrictive liquid level probe provide 3-in-1 measurement for liquid level, interface level and temperature measurements.

### FEATURES

- High accuracy, stability and reliability
- Linear, absolute measurement
- Good capability on anti-interference
- 1 to 3 levels, 1 to 5 temperatures measurement
- Magnetostrictive technology, high precision
- Maximum length up to 20 meters



### PARAMETERS

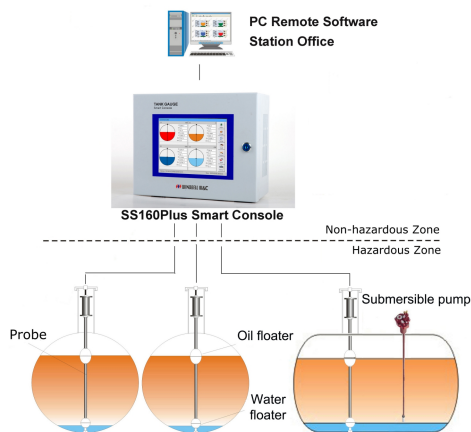
Parameter type	Parameter	
Range	300~20000mm (customized ranges available), Temperature sensor: 5	
Output signal	ModBus RTU or WindBell protocol(optional)	
Accuracy	System Resolution	0.0069mm
	Repeatability	<±0.004% F.S.
	Temperature Accuracy	±0.5° C or ±0.2° C
	Accuracy	<±0.01% F.S
Working conditions	Working temperature	-40° C ~+70° C
House material	Sensor head	Aluminum alloy
	Rod	316L
Electrical connection	Connection type	Integral cable
	Input voltage	+24VDC ± 10%
	Working current	<40mA
Storage Temperature	-40° C ~ +100° C	
Mounting Interface	Threaded Flange Connecting or special order	
Safety Approval	ExialIBT4Ga	
Sealing	IP68	



## PCR200

### PC Remote Software

#### Single site version



### DESCRIPTION

The PC Remote Software for tank level monitoring system is researched and developed by Windbell to provide a real-time tank level monitoring on computer at **site office**.

PC Remote Software uses an open database format. User can easily export data to Excel for further data manipulation. Through PC network, all data can be easily transmitted to headquarter for decision making.

PC Remote Software can communicate with Windbell tank gauge console series.

### FEATURES

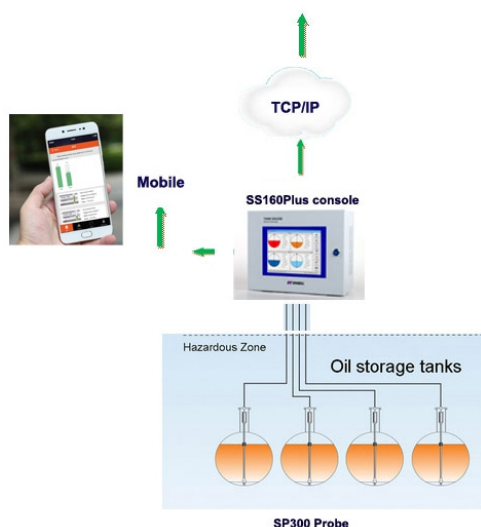
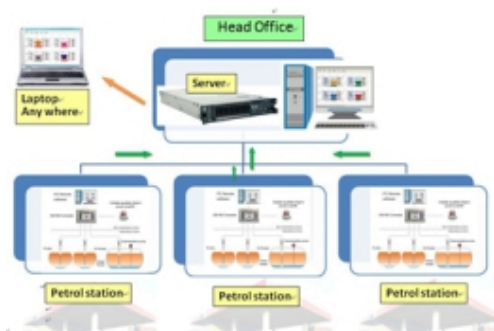
- Easy installation and operation.
- Enough room for expanded functions.
- Real time reporting delivery, inventory, shift and alarm.
- View history reports at any time, like shift reports, delivery reports, inventory reports and alarm reports.
- User-defined alarms.
- Files can be exported in Excel or Text format.

### RUNNING ENVIRONMENT

- Window's operating system XP/Win7/Win8/Win10.
- Higher than (including) Pentium processor 1024MHz.
- 20 G hard drive capacity.
- 1G Ram.
- Modem network connection.

## RS-II Software

### Networking version



### DESCRIPTION

With the RS-II software, based on internet connection between sites and head office, Server in head office can receive tank information transferred from tank gauge console, and store every record for future inquiry.

Together with Client Software GAS-01, user can see current conditions of each tanks at anywhere by internet.

### FEATURES

- Operating authorization management function, high grade of management and control.
- Large expansion ability for future needs, more sites share the same one head office software, saving cost.
- History records for inquiry and analysis.
- Real time monitoring offers most safe and efficient management.
- Supporting export history records in Excel and Text format.

### CONFIGURATION AT HEAD OFFICE

- Working condition  
Public internet and fixed IP address, network connection.
- Hardware and software

**Hard ware:** server, computer.

**Software:** program on server and database, tank monitoring and management software.

### FUNCTION AT HEAD OFFICE

- Data receive--head-office software can receive the data and reports of petrol stations by network.
- Data storage and display--server program and database will store all received data at server, managers in head-office can easily view each tank's information by GAS software.

### SYSTEM SETUP

- For managers in service company. Set authorization for view only and administrator.
- For station owner. Set authorization for different station to his owner.

## GAS Client Software



### DESCRIPTION

GAS Client Software for tank level gauging inquiry, is designed to help user monitor tanks in everywhere.

It is not need to install, just copy to laptop, user can easily to see tank's real time condition. It is also need network.

### FEATURES

- Free of installation.
- Easy to use.
- Simple but helpful.

## iTank APP



### DESCRIPTION

With the APP, customers can query tank data at anytime and anywhere, and the APP can support IOS and Android platform at the same time.

### FEATURES

Users can inquire the following data at anytime and anywhere:

- Station code, station name, oil type.
- Real time oil level, water level, temperature, inventory.
- Real time alarm information.
- Delivery report, shift report, alarm report.

### APP DOWNLOAD

- IOS operating system, please search "iTank" through APP Store, then download according to related instruction.
- Android operating system, please scan the following QR code and download according to the related instruction.

Search for iTank in the App Store



IOS



Android

### APP LOGIN

After downloading APP, input the User Name and Password assigned by Windbell, then can log into the iTank APP and inquire the data of your station tanks at anywhere and anytime.

### Note:

Before configuring the system, users need to provide the following information to Windbell company: **Company name, Station quantity, Station name, Tank quantity, Tank diameters, Tank volume and Oil type.**

Windbell will uniformly allocate the company code, station code, APP user name and password according to these information.

### WB-CLS100 series Leak Sensor



**WB-CLS100-A**  
Tank interstice  
sensor



**WB-CLS100**  
Pipe interstice  
sensor

#### DESCRIPTION

CLS100 series adopt float type principle, the leak sensor is specifically designed to monitor the leakage of oil and water in the interlayer of double-wall tanks and double-wall pipelines.

#### FEATURES

- Safety

Tested and approved by CQST, can be used in zone 0 and Zone 1.

- Sensitive

Detection precision < 3mm, response time < 2S.

- Reliable

Using float type principle, can adapt to complex scene environment, have strong anti-interference ability.

- Convenient installation

The leak signal will be transmitted directly to the leak alarm controller by 2 core cable.

- Can be integrated with SS160Plus and SS200 tank gauge console.

#### PARAMETERS

Detection accuracy	< 3mm
Response time	< 2S
Output signal	Switching value
Cable length	1.3m
Working temperature	-40℃ ~ +60℃
Explosion-proof grade	Exia IIA T4

#### DESCRIPTION

CLK100 controller can connect with CLS100 series leak sensor, can monitor leakage in real time, also have sound-light alarm function.

#### PARAMETERS

Power supply	AC220V, 0.2A
Working temperature	-20℃ ~ +60℃
Installation position	Safety zone
Safety barrier	Windbell GSB05
Alarm mode	Sound light alarm
Explosion-proof mark	[Exia Ga] II A
Standard cable length	3.5m
Monitor sensors	Up to 8

### WB-CLK100

### Leak Alarm Controller





### WB-CLS200 series Leak Sensor



Tank interstice  
sensor



Pipe interstice  
sensor



Tank sump sensor



Dispenser sump  
sensor

#### DESCRIPTION

CLS200 series leak sensor adopt optical type principle, can detect and identify water and fuel leakage of tank interstice, pipe interstice, tank sump and dispenser sump.

#### FEATURES

- Explosion-proof design, safe and reliable.
- High sensitivity and strong anti-interference.
- One same bus can be connected to 8 leak sensors.
- Can identify fuel and water, then give corresponding alarm.
- leak sensor fault alarm function, LED alarm prompt function.
- RS485 bus communication, communication distance up to 600 meters.
- Can be integrated with SS160Plus and SS200 tank gauge console.

#### PARAMETERS

Working temperature	-40℃~+60℃
Relative humidity	30%~90%
Power supply	DC12V±0.5V (by safety barrier)
Operating current	<35mA
Response time	<2S
Alarm type	LED alarm
Ex-mark	Exia II C T4 Ga
Intrinsic safety parameter	Power port: Ui=12.6VDC, li=291mA, Pi=0.92W, Ci=1.6uF, Li=0mH; Signal port: Ui=7.14VDC, li=147mA, Pi=0.26W, Ci=0.11uF, Li=0mH.

#### DESCRIPTION

CLK200 controller can connect with CLS200 series leak sensor, can monitor leakage in real time, also have sound-light alarm function. Can connect with switch volume leak sensor or RS485 type leak sensor.

#### PARAMETERS

Power supply	AC220V, +10%, -15%
Working temperature	-20℃~+60℃
Relative humidity	30%~90%
Operating current	<35mA
Response time	<2S
Alarm mode	Sound-light alarm
Explosion-proof mark	[Exia Ga] II B
Monitor sensors	Up to 12

### WB-CLK200

### Leak Alarm Controller



## Anti-overfill Valve and Its Controller



Anti-overfill valve



Anti-overfill valve controller

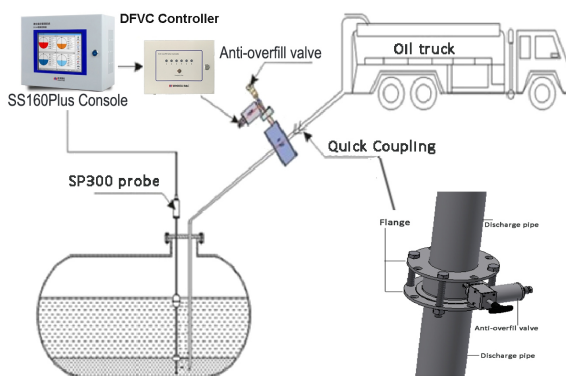
### DESCRIPTION

DFV100 Ex-proof anti-overfill valve is installed at the loading pipe between oil truck and underground tank, and between anti-overfill valve and tank gauge console, there is a valve controller. The controller plays a role like a information transmission center which receive the command from tank gauge console, send shut off command to specific valve, so to stop oil loading immediately.

### PARAMETERS

Power	AC220V±10%
Communication port	RS485
Baud Rate	2400bit/s
Capacity of relay	220V/10A
Monitor up to	6 valves
Enclosure dimension	38(L) × 28 (H) × 22(W) cm (15 × 11 × 8.7 inches)

Parameters Model	DFV100-65	DFV100-80
Rated voltage	220V DC	220V DC
Rated current	1.5A	1.5A
Respond speed	1~2S	1~2S
Explosion proof mark	ExdIIAT4	ExdIIAT4
Protection grade	IP66	IP66
Enclosure dimension L × H × W cm	22 × 12.5 × 7.5	22 × 14 × 8.6



## WB-TSD

### Tank level display



#### DESCRIPTION

It is a new brighter economic display researched and developed by Windbell. The tank-side display shows tank's information aside the tank on above ground. WB-TSD tank-side display is applied to liquid storage tanks, and can install and work safety at tank area.

WB-TSD tank-side display directly connect with ATG console or forecourt console, can clearly display oil product level, water level and product temperature on LCD screen. RS485 communication has remarkable advantages of long distance data transmission, high anti-interference ability. The tank-side display takes advanced micro-controller technology, combined with superior SMD techniques, easy to install, longer lifetime, strong temperature and humidity adaptability in various environments.

#### PARAMETERS

Power	DC12V±25%, 25mA
Display	128*64 LCD screen
Resolution	Oil level: 0.1mm; temperature: 0.01℃
Response time	<3s
Environment temperature	-40℃~60℃ (-40 to 140F)
Relative humidity	<98%
Explosion proof mark	[EXia] II AT4 Ga
Intrinsically features	Power terminal to Earth: $U_i=12.6$ ; $I_i=291\text{mA}$ ; $P_i=0.92\text{W}$ ; $C_i=0.42\mu\text{F}$ ; $L_i=0$ Signal terminal to Earth: $U_i=7.14\text{V}$ ; $I_i=147\text{mA}$ ; $P_i=260\text{mW}$ ; $C_i=0\mu\text{F}$ ; $L_i=0$
Protection grade	IP 65
Suitable cables	$\geq 1.5\text{mm}^2 \times 4$
Maximum distance between TSD and Console	$\leq 1000\text{m}$
Enclosure dimension	14×16.5×9.15cm (5.5 × 6.5 × 3.6 inches)
Weight	1.50kg

## EM02

### Submersible Pump Console Module



#### DESCRIPTION

Submersible pump console module is used for controlling the submersible pumps. It works with SS series console. Once the product level reaches to the preset alarm level in console, the submersible pump console module will automatically cut off the power circuit of submersible pump, so to stop fueling into cars, protect all relative equipment like pipes, fuel dispenser and cars.

Submersible pump console provide 5 couples relay output ports, 5 often open contacts and 5 often close contacts. 5 red LED indicator associate with 5 relays, indicator will keep light when the relay are working.

When oil level in tank reach the alarm value of "OIL LOW", the tank gauge console will send command to submersible pump console, to switch off power to submersible pump, then pump stop working.

#### PARAMETERS

Voltage Supply	DC 15V
Current Supply	50mA MAX 300mA(all relays working)
Communication Port	RS-485
Relay Output	5 couples (normal open & close contacts) AC250V/3A, DC30V/3A
Enclosure dimension	15.5(L) × 14.8 (H) × 3.5(W)cm 6.1 × 5.8 × 1.4 inches



Product Name	Picture	Description
<b>Built-in printer</b>		The optional built-in printer can integrate with SS160Plus, SS600, SS180 and SS200 tank gauge console, so to achieve reports and real time data printing.
<b>4G SMS module</b>		Industrial design standard is adopted to provide wireless long-distance data transmission function for users by using public or private wireless networks. The module adopts high performance 32-bit embedded processor, embedded TCP/IP protocol stack, and provides RS serial port. It has features of stable performance, small size, easy to install and strong resistance to the environment. The module can integrate with SS160Plus, SS600, SS180 and SS200 tank gauge console, if there is any abnormal of station tanks, can send SMS message to users.
<b>4G GPRS module</b>		4G modules support Mobile, Unicom, Telecommunications 4G high-speed access, as well as Mobile, Unicom 3G and 2G access. The software has perfect function and can realize transparent transmission of data from serial port to network. And also support custom registration package, heartbeat package function, support 4 Socket connection, and support transparent cloud access. It has the characteristics of high speed and low delay. The module can integrate with SS160Plus, SS600, SS180 and SS200 tank gauge console, so to achieve wireless data transmission function.
<b>Sound-light Alarm</b>		It is an alarming device that can integrate with Windbell automatic tank gauge console, if there is any abnormal of the tanks, the device can send warning signal to people through sound and light.



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