

成为全球传感器界有影响力的创新型公司

To Be An Influential And Innovative Enterprise
In Global Sensor Field

Smart Street / Smart Community Comprehensive Solution

智慧街区 / 智慧园区 综合解决方案



中国发明专利
Chinese
Invention Patent



美国发明专利
American
Invention Patent



中国商标
Chinese
Trademark



美国商标
American
Trademark



欧洲商标
European
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软件著作权
Software
Copyright

COMPANY PROFILE

企业简介 ▶



西安中星测控有限公司一九九六年成立于世界著名古城——中国·西安。“中星测控”始终坚持“恪守诚信原则，塑造专业品牌，追求长久卓越”的企业文化。经过二十多年的持续努力，已成为中国乃至全球知名的各种智能传感器专业制造商及物联网(智慧城市/智能制造)综合解决方案提供商。

Xi'an Chinastar M&C Ltd. was established in 1996 in the world famous ancient city – Xi'an, China. Chinastar always adheres to the corporate culture of “Preserving Principle of Integrity, Accomplishing Professional Brand, Pursuing Long-lasting Excellence”. After more than 20years of continuous efforts, it has become a well-known professional manufacturer of smart sensors and integrated solutions for Internet of Things (Smart City/Smart Manufacturing) in China and around the world.

WE BELIEVE IN

我们相信 ▶

$$\text{成功} = \int_0^T (\text{奋斗}) dt + \sum \text{机遇}$$

$$\text{Success} = \int_0^T (\text{Endeavor}) dt + \sum \text{Opportunity}$$

成功是奋斗对时间的积分和机遇结合的结果
我们强调奋斗的持续性才是成功的基石

Success is the result of combination between endeavor and opportunity. We emphasize the persistence of endeavor is the cornerstone to success.

WE PERSIST IN

我们坚持 ▶



三角形具有极好的稳定性。其斜边即我们的目标是争创生态双赢，这个信念来自于以追求客户满意为核心理念和很高的品牌专业度和美誉度，这两者强有力的支持，使我们在争创生态双赢的路上走得更快、更高、更远。

The triangle has excellent stability. Its hypotenuse symbolizes our goal of striving for an ecological win-win situation. This belief originates from two powerful pillars: taking customer satisfaction as the core philosophy, and the brand's high professionalism and good reputation. With such strong support, we can move faster, reach higher and go further on the path of pursuing an ecological win-win.



智慧街区 / 智慧园区综合解决方案系统图

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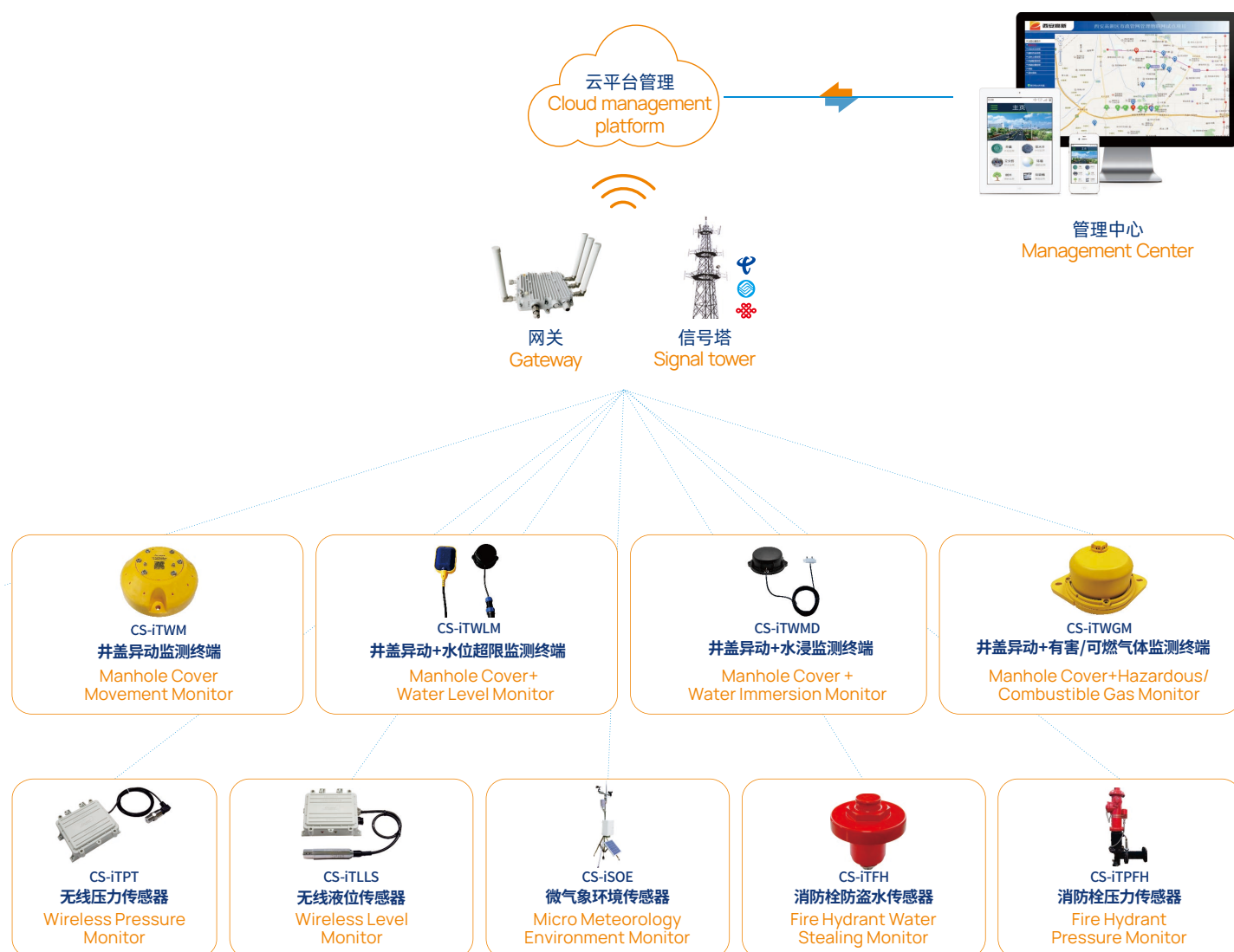
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智慧街区/智慧园区综合解决方案系统图

Smart Street / Smart Community Comprehensive Solution System Outline

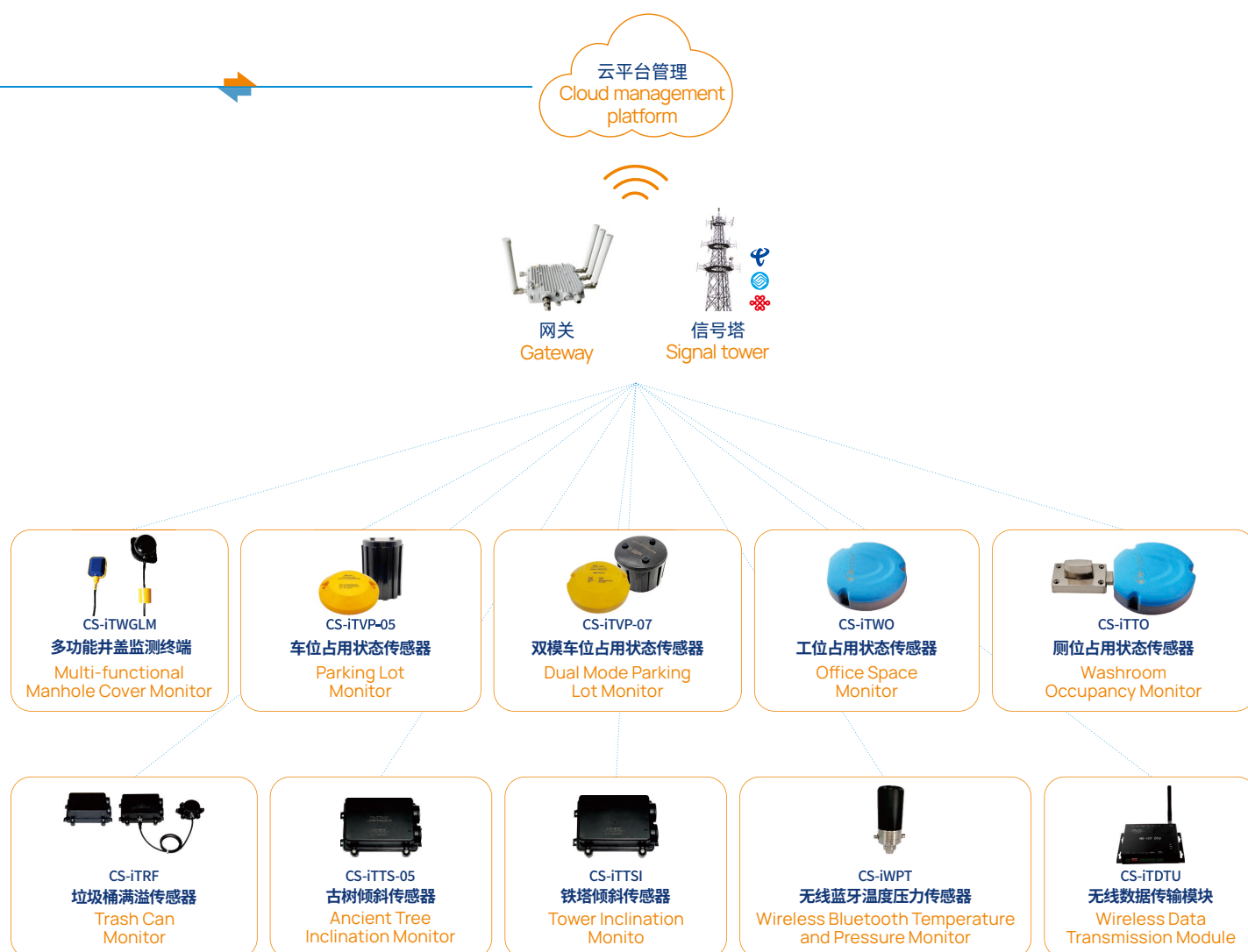
智慧街区/智慧园区综合解决方案是通过各种不同技术的智能传感器组成的神经末梢收集获取公共区的原始信息，然后通过有线及无线通信技术组成的传输网络，最终将获取的信息进行智能处理，有效存储并实现人工和自动化管理。传感器收集获取原始信息并通过传输网络将数据发送至云平台，经云平台分析处理后将监测结果以不同形式呈现给用户并将数据有效存储。

智慧街区/智慧园区综合解决方案技术综合了传感器技术、通信网络技术、物联网技术、大数据处理等多类新技术，是当前热门技术之一。



The Smart Street / Smart community Comprehensive Solution is to collect original data in public area through sensing nerve endings that consist of various smart sensors, transfer the information via cables or wireless communication networks, smartly process and store to achieve manual control and automatic management.

The Smart Street / Smart community Comprehensive Solution is one of the cutting-edge technology, which integrates the sensing technology, communication network technology, IoT technology and data processing technology.



智慧传感器

Smart Sensor ▶

井盖异动监测终端

Manhole Cover Movement Monitor

型号 Model	 CS-iTWM-05	 CS-iTWM-05D
尺寸 Size	150×150×53mm	104×92×38mm
通信方式 Communication Protocol	NB-IoT, LoRaWAN	NB-IoT, CAT.1
供电方式 Power Supply	8500mAH 锂电池 Lithium battery	
待机时间 Standby Time	>3 年 Years / 5000条数据 Messages	
安装位置 Installation	井盖背面 Backside of manhole cover	
外壳材质 Shell Material	PC+ABS	
防护等级 Protection Level	IP68	
功能与特点 Functions and Characteristics	电池分体式安装，可更换（但不建议用户自行打开） Battery installed separately, replaceable (not recommended for users to open by themselves).	体积小、方便安装、带状态指示灯, 竖直 90°自动休眠 Small in size, easy to install, with status indicator. Auto-sleep at 90° vertical.
	无线穿透力强，可穿透铸铁井盖 Strong wireless penetration, can penetrate cast iron manhole cover.	
	实时监测井盖状态，井盖因非正常打开、移动、严重破损、坠落而发生倾斜时触发报警 Real-time monitoring of manhole cover status and alarm is triggered when the cover is tilted due to abnormal opening, moving, serious damage or falling.	
	低电压自检，水浸自检功能，可监测井下温度环境 Low voltage self-test, flood self-test function, can monitor the well temperature environment.	
	配套平台支持报警高亮定位、报警信息同步发送，手机派单及维修反馈 Support platform supports alarm highlighting and positioning, sending alarm message, cell phone dispatching and maintenance feedback.	
	适用于各种类型井盖的状态监测 It is applicable to the status monitoring of various types of manhole covers.	

井盖异动+水监测监测终端 Manhole Cover + Water Monitor

型号 Model		
类型 Type	井盖异动+水浸 Water immersion monitor	井盖异动+水位超限 Water level monitor
通信方式 Communication Protocol	NB-IoT, CAT.1	
供电方式 Power Supply	8500mAH 锂亚电池 Lithium battery	
待机时间 Standby Time	>3 年 Years / 5000条数据 Messages	
安装位置 Installation	井盖背面 Backside of manhole cover	
外壳材质 Shell Material	PC+ABS(井盖异动部分 Manhole cover monitor part)	
防护等级 Protection Level	IP68	
功能与特点 Functions and Characteristics	判断井下是否有水浸入，有水浸入时触发报警 Determine whether the water level in the well exceeds the limit, and trigger an alarm when the limit is exceeded.	判断井下水位是否超限，超限时触发报警 Determine whether the water level in the well exceeds the limit, and trigger an alarm when the limit is exceeded.
	实时监测井盖状态，井盖因非正常打开、移动、严重破损、坠落而发生倾斜时触发报警 Real-time monitoring of manhole cover status and alarm is triggered when the cover is tilted due to abnormal opening, moving, serious damage or falling.	
	低电压自检、可监测井下温度环境 Low voltage self-test, can monitor the well temperature environment.	
	配套平台支持报警高亮定位、报警信息同步发送，手机派单及维修反馈 Support platform supports alarm highlighting and positioning, sending alarm message, cell phone dispatching and maintenance feedback.	
	适用于各种类型井盖的状态监测 It is applicable to the status monitoring of various types of manhole covers.	

你关心的井盖和井下问题都在这里了
MANHOLE COVER

井盖异动+气体监测终端 Manhole Cover + Gas Monitor

你关心的井盖和井下问题都在这里了

MANHOLE COVER

型号 Model	 CS-iTWGM-01	 CS-iTWGM-02
类型 Type	井盖异动+有害气体Hazardous gas monitor	井盖异动+可燃气体Combustible gas monitor
通信方式 Communication Protocol	NB-IoT, LoRaWAN	
供电方式 Power Supply	19AH 锂亚电池 Lithium battery	
待机时间 Standby Time	>3 年 Years / 3000条数据Messages	
安装位置 Installation	井盖背面 Backside of manhole cover	
外壳材质 Shell Material	PC+ABS(井盖异动部分 Manhole cover monitor part)	
防护等级 Protection Level	IP67	
功能与特点 Functions and Characteristics	一氧化碳、甲烷、VOCs(乙醇、甲苯、硫化氢等)有害气体泄漏监测及报警 Monitoring and alarm of hazardous gas leakage of CO, CH ₄ and VOCs (ethanol, toluene, H ₂ S, etc.)	可燃气体CH ₄ 的泄漏监测及报警 Leakage monitoring and alarm of flammable gas CH ₄ .
	实时监测井盖状态，井盖因非正常打开、移动、严重破损、坠落而发生倾斜时触发报警 Real-time monitoring of manhole cover status and alarm is triggered when the cover is tilted due to abnormal opening, moving, serious damage or falling.	
	低电压自检、可监测井下温度环境 Low voltage self-test, can monitor the well temperature environment.	
	配套平台支持报警高亮定位、报警信息同步发送，手机派单及维修反馈 Support platform supports alarm highlighting and positioning, sending alarm message, cell phone dispatching and maintenance feedback.	
	适用于各种类型井盖的状态监测及井下管网安全状态的监测 Monitoring the state of various types of manhole covers, and the safety state of the pipe network under the well.	

多功能井盖监测终端
Multi-functional Manhole Cover Monitor

型号 Model	
通信方式 Communication Protocol	NB-IoT, LoRaWAN
供电方式 Power Supply	19AH 锂亚电池 Lithium battery
待机时间 Standby Time	>3年Years/3000条数据Messages
有害气体 Noxious Gas	CO、CH ₄ 、VOCs (EtOH、C ₇ H ₈ 、H ₂ S等)
安装位置 Installation	井盖背面 Backside of manhole cover
外壳材质 Shell Material	PC+ABS(井盖异动部分 Manhole cover monitor part)
防护等级 Protection Level	IP67
功能与特点 Functions and Characteristics	实时监测井盖状态，井盖因非正常打开、移动、严重破损、坠落而发生倾斜时触发报警 Real-time monitoring of manhole cover status and alarm is triggered when the cover is tilted due to abnormal opening, moving, serious damage
	一氧化碳、甲烷、VOCs(乙醇、甲苯、硫化氢等)有害气体泄漏监测及报警 Monitoring and alarm of hazardous gas leakage of CO, CH ₄ and VOCs (ethanol, toluene, H ₂ S, etc.)
	判断井下水位是否超限，超限时触发报警 Determine whether the water level in the well exceeds the limit, and trigger an alarm when the limit is exceeded.
	配套平台支持报警高亮定位、报警信息同步发送，手机派单及维修反馈 Support platform supports alarm highlighting and positioning, sending alarm message, cell phone dispatching and maintenance feedback.
	低电压自检、可监测井下温度环境 Low voltage self-test, can monitor the well temperature environment.
	适用于各种类型井盖的状态监测及井下管网安全状态的监测 Monitoring the state of various types of manhole covers, and the safety state of the pipe network under the well.

你关心的井盖和井下问题都在这里了

MANHOLE COVER

车位占用状态传感器 Parking Lot Monitor

型号 Model	 CS-iTVP-05	 CS-iTVP-07
类型 Type	车位占用状态传感器 Parking lot monitor	双模车位占用状态传感器 Dual mode parking lot monitor
通信方式 Communication Protocol	NB-IoT, LoRaWAN	
供电方式 Power Supply	9AH/19AH 锂电池 Lithium battery	38AH 锂电池 Lithium battery
待机时间 Standby Time	>3 年(9AH)Years / 3000条数据Messages >5 年(19AH)Year/ 5000条数据Messages	>5 年Years / 5000条数据Messages
功能与特点 Functions and Characteristics	探测高度<0.35米 Detection height<0.35m.	探测高度0.2~1.2米 Detection height:0.2~1.2m.
	安装方便, 无需布线, 维护简单 Easy installation, no wiring and simple maintenance.	增加雷达检测, 精度高, 灵敏度可调整 Radar detection is added, high detection accuracy and adjustable sensitivity level.
	低功耗设计, 电池续航可达3年以上 Low power consumption design, battery life-span can reach more than 3 years.	低功耗设计, 电池续航可达5年以上 Low power consumption design, battery life-span more than 5 years.
	可以准确判断车位是否停放车辆 Accurately judge whether the parking space is occupied.	网络异常, 数据缓存, 网络正常后补发 Network abnormality, data cache, data reissue after the network is normal.
	应用于道路旁、室内外停车场的计时收费、停车诱导、反向寻车等 Applicable in roadside, indoor and outdoor parking lots for time charging, parking guidance, reverse car search, etc.	应用于道路旁、室内外停车场等车位占用状态监测查询及计时收费、车位预定, 及非法占道检测报警等 Applicable in monitoring and querying parking space occupation status, time charging, parking space reservation, illegal occupation detection and alarm, etc. roadside, indoor&outdoor parking lots.
低电压自检 Low Voltage Self-test.		

工位/厕所占用状态传感器 Office Space/Washroom Occupancy Monitor

型号 Model	 CS-iTWO	 CS-iTTO
类型 Type	工位占用状态传感器 Office space monitor	厕所占用状态传感器 Washroom occupancy monitor
通信方式 Communication Protocol	NB-IoT, LoRaWAN	
供电方式 Power Supply	5VDC 外部供电 External power	3.6VDC 锂亚电池 Lithium battery
待机时间 Standby Time	>1500条数据 Messages	1年或3000条数据 1 Year or 3000 Messages
外壳材质 Shell Material	ABS	
测量范围 Measuring Range	0.5m ~ 2m	
功能与特点 Functions and Characteristics	工位预定 Workstation reservation	
	工位故障检测提醒 Workstation fault detection alert	厕位故障检测提醒 Toilet position fault detection alert.
	久坐提醒 Sedentary reminder	如厕人员安全监测, 如厕超时报警 (如30分钟、可设置) Toilet personnel safety monitoring, such as toilet overtime alarm (such as 30 minutes, settable).
	安装方便, 检测准确率高, 工作稳定, 低电压自检 Easy installation, high detection accuracy and stable operation, low voltage self-test.	
	实时监测工位/厕所占用状态, 状态变化时, 信息及时发送至平台 Real-time monitoring of workstation/washroom occupancy status, when the status changes, the information is sent to the platform in time.	

找空位
就是这么简单

无线压力/液位传感器

Wireless Pressure/Level Monitor

型号 Model	 CS-iTPT	 CS-iTLLS
类型 Type	无线压力传感器 Wireless pressure monitor	无线液位传感器 Wireless level monitor
通信方式 Communication Protocol	NB-IoT, LoRaWAN	
供电方式 Power Supply	19AH 锂亚电池 Lithium battery	19AH 电池供电 Lithium battery
待机时间 Standby Time	>5 年Year/ 3000条数据Messages	>5 年Year/ 3000条数据Messages
根据用户量程,精度选配 Model selection based on customer requirement on range, accuracy etc	如: PT1200, 量程0-1MPa, 精度1%, 过程接口G1/2, 线长0.5m E.g. PT1200, range 0-1MPa, accuracy 1%, process connection G1/2, cable length 0.5m.	如: PT400, 量程0~5m水, 精度1%, 线长6m E.g. PT400, range 0-5mH ₂ O, accuracy 1%, cable length 6m.
功能与特点 Functions and Characteristics	采用高可靠压力传感器 Adopt high reliability pressure sensor.	采用高可靠扩散硅液位传感器 Adopt high reliable diffusion silicon liquid level sensor.
	应用于消防管道, 给排水管道等压力监测场合 Applicable in monitoring the pressure of fire hydrant pipes, water supply and drainage pipes, etc.	应用于道路桥梁积水、水罐、油罐等液位监测场合 Applicable in monitoring liquid level in road and bridge water, water tank, oil tank, etc.
	压力传感器/液位变送器和控制器分体式设计, 适应多种环境安装 Split design of pressure sensor/level transmitter and controller, adaptable to various environment installation.	
	可实时查询管道压力值/液位高度 Real-time access to pipeline pressure values / level inquiry.	
	支持心跳报文, 上下限报警, 压力值/液位值波动超限报警, 异常报警等 Support heartbeat message, upper and lower limit alarm, pressure/level fluctuation over limit alarm, abnormal alarm, etc.	
	低电压自检 Low Voltage Self-test.	

微气象环境传感器

Micro Meteorology Environment Monitor

型号 Model	 <div>CS-iSOE</div>	
通信方式 Communication Protocol	NB-IoT	
供电方式 Power Supply	市电或太阳能 Mains supply or solar energy	
基本环境信息 Basic Environment Information	风向 Wind direction 温度 Temperature 大气压 Atmospheric pressure	风速 Wind speed 湿度 Humidity 降雨量 Rainfall
可选环境信息 Optional Environment Information	噪声 Noise PM2.5, PM10 土壤墒情 Soil moisture, etc.	
功能与特点 Functions and Characteristics	带有2.5米高支架及避雷装置 With 2.5m high support and lightning protection device.	
	自带太阳能板、蓄电池、电源箱，不受供电限制 With its own solar panel, battery and power box, it is not limited by power supply.	
	可监测局部大气温度、湿度、风速、风向、PM2.5等气象参数并设置参数阈值，进行异常报警 Monitor local atmospheric temperature, humidity, wind speed, wind direction, PM2.5 and other meteorological parameters and set parameter thresholds for abnormal alarm. Applicable in agriculture, forestry, water conservancy, city and other micro-meteorological environment monitoring.	

消防栓防盗水/压力传感器

Fire Hydrant Water Stealing/Pressure Monitor

型号 Model	<div><div>CS-iTFH</div></div>	<div><div>CS-iTPFH</div></div>
类型 Type	消防栓防盗水传感器 Fire Hydrant Water Stealing Monitor	消防栓压力传感器 Fire Hydrant Pressure Monitor
通信方式 Communication Protocol	NB-IoT, LoRaWAN	
供电方式 Power Supply	9AH 锂亚电池 Lithium battery	9AH 锂亚电池 Lithium battery
待机时间 Standby Time	>3年Year/ 3000条数据Messages	>3年Year/ 3000条数据Messages
防护等级 Protection Level	IP68	IP66
功能与特点 Functions and Characteristics	实时监测消防栓水源是否被盗，发生盗水事件时触发报警 Real-time monitoring of hydrant water source for theft, triggering an alarm in case of water theft.	定时检测消防栓水压 Regularly detect the water pressure of fire hydrant.
	实时监测消防栓是否倾斜，倾斜角度超过设置警戒值触发报警，以便及时阻止外物对消防栓造成更大破坏 Real-time monitoring of hydrant tilting, tilting angle exceeds the set alert value triggers the alarm, so as to timely prevent foreign objects from causing more damage to the hydrant.	消防栓管道内无水或水压不足时触发报警 Alarm is triggered when there is no water or insufficient water pressure in hydrant pipes.
	配套平台支持报警高亮定位、报警短信同步发送，手机派单及 维护/故障排查 反馈 Support platform supports alarm highlighting and positioning, sending alarm SMS, cell phone dispatching and maintenance/fault investigation feedback.	
	应用于精细化、智能化消防管理，提高消防队员现场灭火救灾的效率 Applicable in refinement and intelligent fire management to improve the efficiency of firefighters in fire fighting and disaster relief.	
	低电压自检 Low Voltage Self-test	

古树倾斜传感器
Ancient Tree Inclination Monitor

型号 Model	<div><div>CS-iTTS-05</div></div>
通信方式 Communication Protocol	NB-IoT, LoRaWAN
供电方式 Power Supply	9AH 锂亚电池 Lithium battery
待机时间 Standby Time	>3年Years/3000条数据Messages
量程 Range	±75°
相对精度 Relative Precision	± 2°、± 1°
外壳材质 Shell Material	ABS
防护等级 Protection Level	IP65
功能与特点 Functions and Characteristics	安装方便，使用弹性扎带或不锈钢抱箍即可将传感器固定于树干上 Easy installation, the sensor can be fixed to the tree trunk with elastic ties or stainless steel clamps.
	智能判断树木是否发生倾斜，当倾斜角度超过设置阈值时触发报警 Intelligently judge whether the tree is inclined, and trigger the alarm when the inclination angle exceeds the set threshold.
	配套平台支持报警高亮定位、报警短信同步发送，手机派单及排查反馈 Support platform supports alarm highlighting and positioning, sending alarm SMS, cell phone dispatching and fault investigation feedback.
	应用于珍稀古树倾斜状态监测，可扩展至铁塔、吊塔、房屋建筑、广告牌等高精度监测 It is applied to the monitoring of the inclination status of rare ancient trees and can be extended to high-precision monitoring of iron towers, crane towers, housing buildings, billboards, etc.
	低电压自检 Low Voltage Self-test

状态不在
倾斜早知道
TILTING

垃圾桶满溢传感器 Trash Can Monitor

型号 Model	 CS-iTRF
通信方式 Communication Protocol	NB-IoT, LoRaWAN
供电方式 Power Supply	9AH 锂亚电池 Lithium battery
待机时间 Standby Time	>3年Years/3000条数据Messages
可选型式 Optional Types	单桶/双桶 Single / Double barrels
外壳材质 Shell Material	ABS
防护等级 Protection Level	IP65
功能与特点 Functions and Characteristics	采用国际先进红外测距传感器 Adopt interational advanced infrared distance measuring sensor.
	外壳坚固防水，防水防尘等级可达IP65 The housing is fastened and waterproof, and the waterproof and dustproof level can reach IP65.
	低电压自检 Low Voltage Self-test
	应用于市政、景区、校园等垃圾桶监测与管理，有效提升垃圾清运效率 Applicable in monitoring and managing the garbage cans in municipalities, scenic spots, campuses, etc. to effectively improve garbage removal efficiency.
	智能判断垃圾桶内垃圾是否满溢，未达设置报警值时，间隔上报数值，达到设置报警值时，触发满溢报警 Intelligently judge whether the garbage in the bin is overflowing or not, when the alarm value is not reached, the value will be reported at intervals, when the alarm value is reached, the overflow alarm will be triggered.

无线蓝牙温度压力变送器 & 无线数据传输模块

Wireless Bluetooth Temperature and Pressure Monitor

Wireless Data Transmission Module

型号 Model	 CS-iWPT	 CS-iTDTU
类型 Type	无线蓝牙温度压力变送器 Wireless Bluetooth Temperature and Pressure Monitor	无线数据传输模块 Wireless Data Transmission Module
通信方式 Communication Protocol	Bluetooth LE	NB-IoT
供电方式 Power Supply	8~30VDC 外部供电 External power 3.6VDC/2.7AH 电池供电 Lithium battery	7~30VDC 外部供电 External power 3.6~4.2VDC 电池供电 Lithium battery
待机时间 Standby Time 输出电压 Output Voltage	>1年Year/ 5000条数据Messages	天线接口Antenna Interface SMA 5VDC/200mA(max)
外壳材质 Shell Material	不锈钢+氟橡胶 Stainless steel+ Fluororubber	铝合金 Aluminium
功能与特点 Functions and Characteristics	温度、压力一体化监测，低电压自检 Integrated temperature and pressure monitoring, low voltage self-test.	可根据设定的采样间隔采集不同的数据 Capture different kinds of data according to the set sampling interval.
	支持蓝牙通信，可通过配套手机APP实现参数配置及监测数据查看 Support Bluetooth communication and can be used with cell phone APP to configure parameters and view monitoring data.	使用USB接口配置和调试，支持2通道模拟量输入，2通道数字量输入 Support 2 channels of analog input and 2 channels of digital input by using USB interface for configuration and debugging.
	体积小、安装方便、使用简单 Small size, easy installation and simple use.	支持1路数字量输出，1路RS485接口，1路5V/200mA电压输出 Support 1 channel digital output, 1 channel RS485 interface, 1 channel 5V/200mA voltage output.
	应用于输油、输气、供暖输送管道等设施的 温度、压力采集 Applicable in temperature and pressure data collection of oil, gas and heating pipelines etc.	可适配不同款式天线，应用灵活，满足多种应用场合 Flexible application with different antenna styles to meet various applications.
	支持电池供电和外接电源两种供电方式 Support both battery and external power supply.	

解决方案

Solution ▶

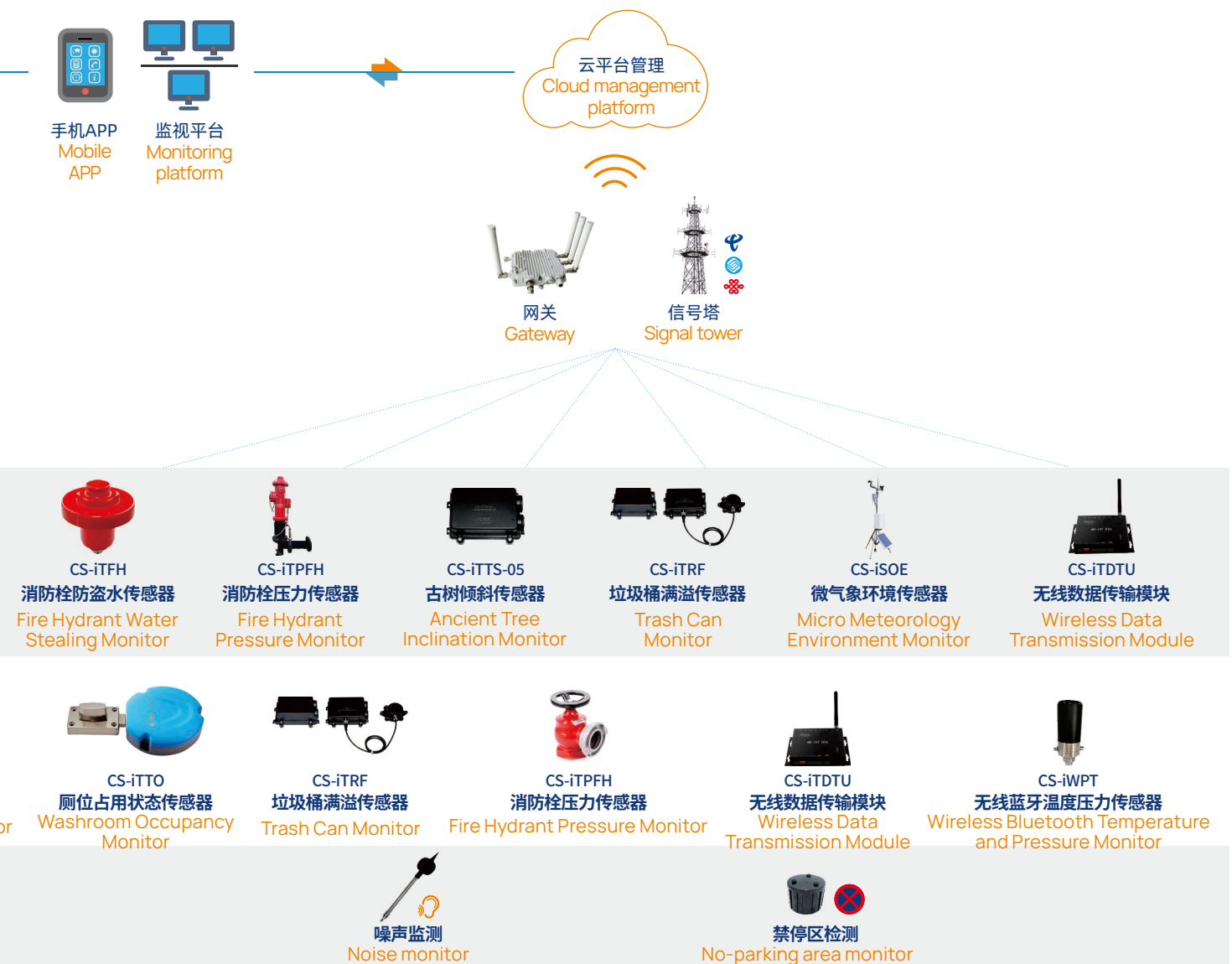
智慧园区综合管理平台以多种智能传感器为感知基础，对园区内各子系统数据进行实时采集，如：智能井盖系统，停车管理系统，室内外环境监测系统，消防系统，智能垃圾桶系统，供电监测系统等。各子系统数据汇入智能云平台并经大数据分析计算，完成智慧园区综合监测及管理，以实现园区内及时，互动，整合的信息感知，传递和处理，打造智慧，低碳的“建筑生命体”，提供“安全，稳定，绿色，节能，经济”的园区工作生活环境。

智慧园区 Smart Community

系统特点 System Characteristic



Smart community comprehensive management platform is based on many different smart sensors. It can collect real-time data of all subsystem in this community, like, smart manhole cover monitor system, smart parking management system, indoor & outdoor environmental monitoring system, fire extinguishing system, smart trash can system, power-supply monitoring system. All the data from subsystem gathers in the smart cloud platform. It is analyzed and calculated to achieve the monitoring and management of the smart community. In this way, it enables timely information perception, transfer, and processing in the community to create a smart and low carbon Interactive Architecture" and to provide a safe, stable, environmental, energy-saving and economical working & living surroundings.



智慧井盖

Smart Manhole Cover Monitor

智能井盖监测系统解决方案由井盖监测终端、智能云平台、PC端及手机端监测管理平台等构成，采用先进的无线通讯方式，信号覆盖广泛且稳定，可广泛应用于各种类型井盖的状态监测，发生险情（如井盖丢失、倾斜、断裂等）及时反馈上报，通过智能云平台或微信公众号推送派单给维护人员，维护人员及时查看、维修或更换井盖，避免人员坠井现象发生，为人民生命、财产安全提供保障，为窨井及井下安全提供保障。

Intelligent manhole cover monitoring system solution consists of manhole cover monitoring terminal, intelligent cloud platform, PC and cell phone monitoring and management platform, etc. It adopts advanced wireless communication method, with wide and stable signal coverage, and can be widely used in the status monitoring of various types of manhole covers, and provide timely feedback and report on the occurrence of dangerous situations (e.g. loss of manhole covers, tilting, breakage, etc.), and dispatch the order to the maintenance personnel through the intelligent cloud platform or push dispatch via Wechat Official Account. The maintenance personnel can check, repair or replace the manhole cover in time to avoid the phenomenon of people falling into the well, provide protection for people's life and property safety, and provide protection for manhole and underground safety.



实时监测井盖状态及井下安全、异常情况即时上报

▶ Real time monitoring of manhole cover status and immediate reporting of underground safety and abnormal situations.

先进数据融合滤波算法、准确率高

▶ Advanced data fusion filtering algorithms, high accuracy.

安装维护简便

▶ Easy installation and maintenance

支持多平台接入、可互联互动

▶ Collaborate with multiple platforms

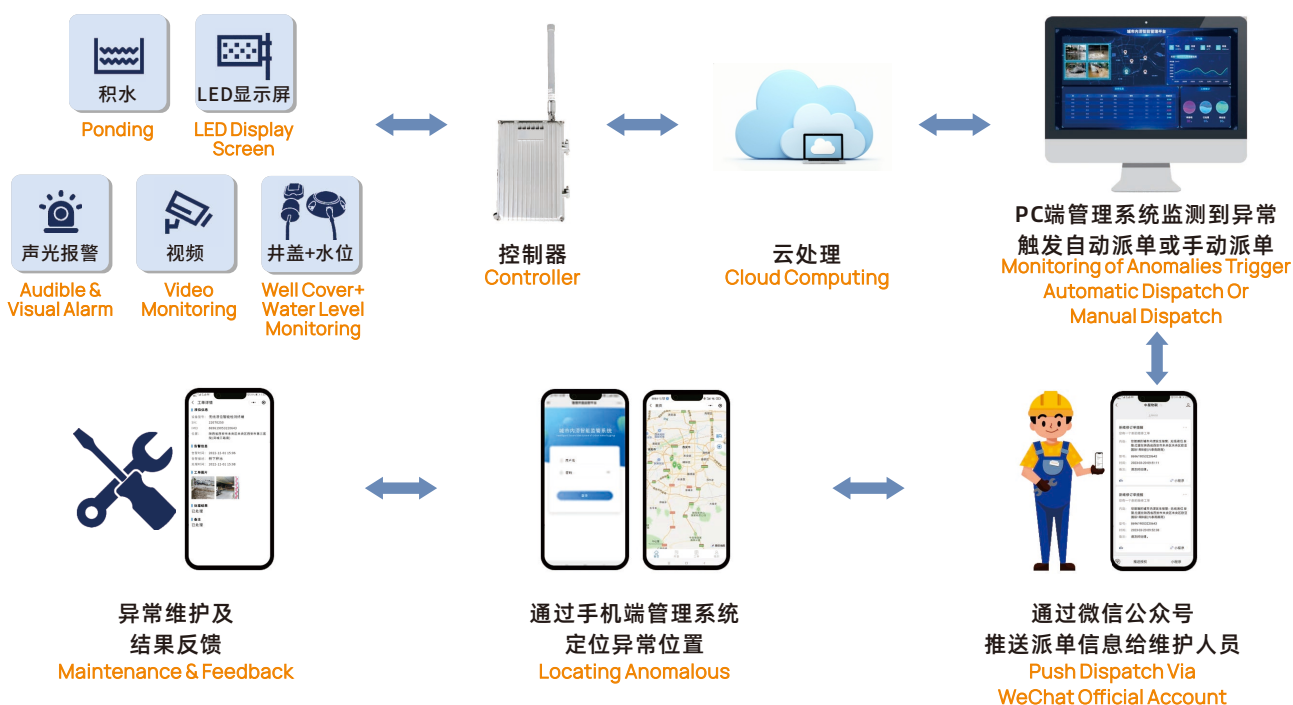


产品类型及支持功能 Product Type & Supporting Functions		井盖异动监测 Manhole Cover Monitoring	水浸监测 Water Immersion Monitoring	水位超限监测 Water Level Monitoring	有害气体监测 Hazardous Gas Monitoring	可燃气体监测 Combustible Gas Monitoring
 已有功能 Existing Features  支持拓展 Support Expansion						
 CS-iTWM-05	井盖异动监测终端 Manhole Cover Movement Monitor					
 CS-iTWM-05D	井盖异动监测终端 Manhole Cover Movement Monitor					
 CS-iTWMD-05	井盖异动+水浸监测终端 Manhole Cover + Water Immersion Monitor					
 CS-iTWLM-05	井盖异动+水位超限监测终端 Manhole Cover + Water Level Monitor					
 CS-iTWGM-01	井盖异动+有害气体监测终端 Manhole Cover + Hazardous Gas Monitor					
 CS-iTWGM-02	井盖异动+可燃气体监测终端 Manhole Cover + Combustible Gas Monitor					
 CS-iTWGLM-01	多功能井盖监测终端 Multi-functional Manhole Cover Monitor					

城市内涝 City Flooding System

城市内涝智能监管系统采用边缘计算、无线传输、云计算等先进技术，集成了液位传感器、微气象监测系统、井盖异动+水位超限监测传感器、LED显示屏、声光报警+语音播报设备、自动阻挡器、视频监控等设备。实现汛前的微气象感知预报；汛中的实时监测、积水报警提醒、自动拦阻通行、派单救援；汛后的数据统计分析，排涝系统对接。实现全方位、全周期的智能化管理，从而达到预警减灾，保障城市公共安全的目的。

The intelligent supervision system of city flooding adopts edge computing, wireless transmission, cloud computing and other advanced technologies, integrating liquid level sensors, micro-meteorological monitoring system, well cover variance + water level exceeding the limit of monitoring sensors, LED display, sound and light alarm + voice broadcasting equipment, automatic blocking device, video surveillance and other equipment. Realize the micro-weather perception forecast before flood; real-time monitoring, water alarm reminder, automatic blocking and rescue; post-flood statistical analysis, drainage system docking. Realize all-round, full-cycle intelligent management, so as to achieve the purpose of early warning and disaster mitigation, to protect the public safety of the city.



微气象监测系统监测现场环境情况（温度、湿度、风速、PM2.5等）

Micro meteorology monitor system can monitor the site environment (temperature, humidity, wind speed, PM2.5, etc.).

实时监测易积水路段积水量，超过阈值及时报警，并开启自动阻挡系统

Monitor the real-time amount of ponding in sections prone to ponding, and alarm in time when it exceeds the threshold. Start the automatic blocking system.

现场声光语音报警提醒，屏幕显示积水量信息

On-site sound and light voice alarm reminder, screen display waterlogging information.

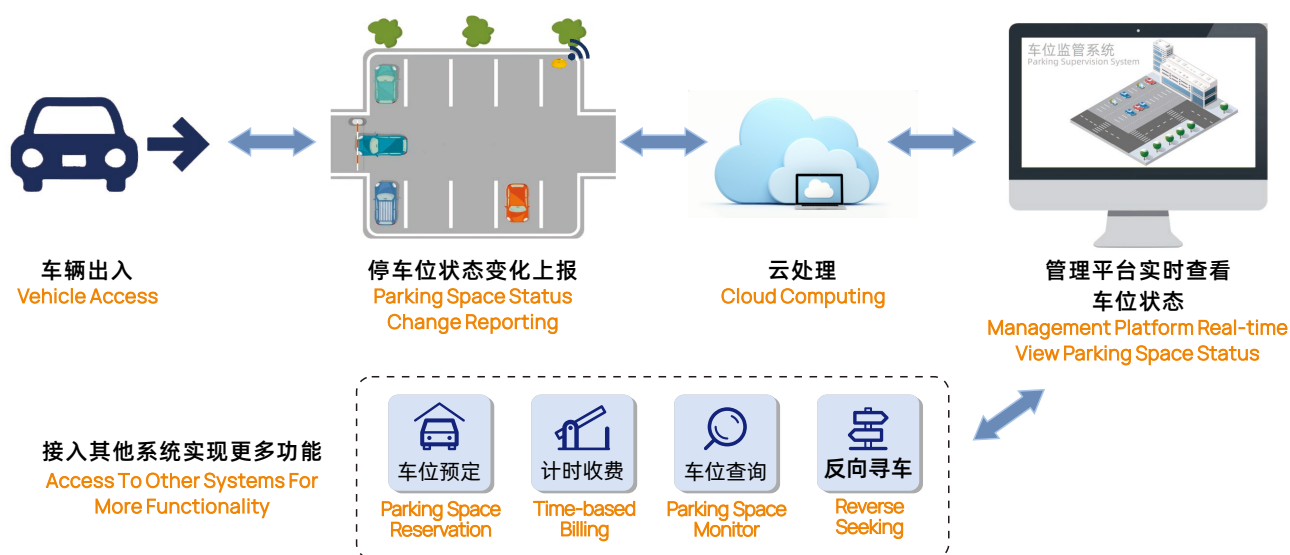
支持多平台接入、可互联互通

Collaborate with multiple platforms

智慧停车 Smart Parking System

智慧停车管理系统以可靠稳定的车位传感器为感知基础，实时监测车位状态变化，结合外围设备可实现车位查询预订系统，停车引导系统，视频监控系统，反向寻车系统，自助缴费系统，各子系统数据汇入智能云平台并经大数据分析计算，实现智慧停车管理系统。该系统中各子系统及时互通数据，互联互动，打造“低成本，省时，快速，高效，优果”的智慧停车系统。适用于道旁停车，室外停车场及室内停车场。

Intelligent parking management system with reliable and stable parking sensors as the basis for perception, real-time monitoring of changes in parking status, combined with peripheral equipment can be realized in the parking query booking system, parking guidance system, video monitoring system, reverse search system, self-service payment system, the data of the subsystems into the intelligent cloud platform and big data analysis and calculation, to achieve intelligent parking management system. Each sub-system in the system timely interoperability data, interconnection and interaction, to create a "low-cost, time-saving, fast, efficient, excellent results" of the intelligent parking system. It is suitable for roadside parking, outdoor parking lot and indoor parking lot.



安装方便、无需布线

Easy installation, no wiring required

超低功耗，精准检测

Ultra-low power consumption, accurate detection

融合多个子系统，包含车位查询预订系统，停车引导系统，视频监控系统，反向寻车系统，自助缴费系统等。

- Integrated with various subsystems, including parking space booking and checking, parking guidance, video monitoring, reverse seeking, self-service payment, etc.

各子系统数据互通协同工作，用户实时获取相关数据，在最短的时间找到合适的停车场或停车位，结合停车引导，反向寻车及自助缴费，可实现高效率停车或找车，实现用户最理想的结果。

- All subsystem shares data and cooperate with each other. So the user can get the data in real time to find an available parking space in shortest time. With the help of parking guidance, reverse seeking and self-service payment, user can find parking space or his car efficiently. All the smart system brings users with the excellent experience.

智慧消防 Smart Fire Extinguishing System

智慧消防系统通过消防栓水压力监测传感器，消防栓防盗水倾斜传感器来监测室内外消防栓中水压力状况，室外消防栓是否被盗水及室外消防栓是否发生倾斜状态。传感器数据及时汇入智能云平台并经大数据分析计算可以实时获取室内外消防栓压力状态及室外消防栓是否被盗水或倾斜。支持与消防系统其他系统对接，打造智慧消防，确保消防设备正常使用。

Through the use of fire hydrant water pressure monitor and fire hydrant water stealing monitor, the smart fire extinguishing system can monitor the water pressure of outdoor fire hydrant, whether there's water stealing or not, as well as the inclination condition of the fire hydrant. The sensor data is collected to the smart cloud platform real-time, and analyzed and calculated by the big data. Then the user can know the pressure status of indoor and outdoor fire hydrants and whether the water in outdoor fire hydrants is stolen or hydrant inclines. This system can connect with other fire fighting systems to create a smart fire extinguishing system, and so as to ensure the normal use of fire fighting equipment.



精细化、智能化消防管理

Refined and intelligent fire management

实时监测室内外消防栓压力、室外消防栓是否被盗水或倾斜。

Monitor the real-time status of the water pressure of indoor and outdoor fire hydrant, whether the water in outdoor fire hydrants is stolen or hydrant inclines.

超低功耗，精准检测

Ultra-low power consumption, accurate detection

与消防系统或其他子系统对接

Collaborative with fire extinguishing system or other subsystems

智慧环卫 Smart Environmental Sanitation System

生活垃圾得不到及时清理会污染环境进而导致空气污染严重，然而，垃圾桶数量较多，分布较广，状态很难汇集。智慧环卫系统通过垃圾桶满溢监测传感器监测各个垃圾桶中垃圾满溢程度，根据设定阈值上报信息至智能云平台并经大数据分析计算规划出回收处理的最佳路径。工作人员借助系统规划的路径可以在更短的时间回收更多的垃圾，大幅度减少因垃圾堆积不能及时处理而造成的环境污染现象，提供温馨生活环境。可适用于街区，园区，景区等。

If household garbage is not cleaned in time, it will pollute the environment and lead to serious air pollution. However, there are a number of trash cans and they are scattered in large area. So it'll be hard to collect their status in time. The smart environmental sanitation system monitors the overflowing status of garbage in each trash can. When the trash can overflow exceeds the limit set, a message will be sent to the smart cloud platform. After analysis and calculation of the big data, the system can draft a best route for collection. The staff can collect more garbage in a shorter time along this route, and thus reduce the environmental pollution resulting from garbage accumulation. So this system can help to provide a clean living environment. It can be applied in communities, parks, scenic spots, etc.



实时监测各个垃圾桶满溢程度及垃圾桶是否倾斜。

Monitor the real-time overflowing of garbage in each trash can and whether the trash can tilts or not.

超低功耗，精准检测，维护简便

Ultra-low power consumption, accurate detection, simple maintenance

与智慧城市、智慧街区及其他系统对接。

Collaborative with smart city, smart street or other systems.

部分项目案例

Successful Project ▶

Manhole Cover Monitor Project

井盖监测项目



项目位置

Project Location

北京市(热力网管井盖监测项目)

Beijing

河北省张家口市(北京冬奥会会场项目)

Zhangjiakou City, Hebei Province

广东省广州市(智慧城市项目)

Guangzhou City, Guangdong Province

陕西省西安市(热力网管井盖监测项目)

Xi'an City, Shaanxi Province

江苏省镇江市(梦想小镇项目)

Zhenjiang City, Jiangsu Province

陕西省西安市(中亚峰会会场项目)

Xi'an City, Shaanxi Province

安徽省合肥市(城市生命线项目)

Hefei City, Anhui Province

广东省深圳市(智慧公园项目)

Shenzhen City, Guangdong Province

山东省济南市

Jinan City, Shandong Province

黑龙江省哈尔滨市

Harbin City, Heilongjiang Province

河南省郑州市

Zhengzhou City, Henan Province



Wireless Pressure Monitor Project

无线压力监测项目



项目位置

Project Location

海南省(调压柜智能监测项目)

Hainan

上海市

Shanghai

陕西省渭南市

Weinan City, Shaanxi Province

江苏省南京市

Nanjing City, Jiangsu Province

北京市

Beijing

陕西省西安市

Xi'an City, Shaanxi Province

Wireless Level Monitor Project

无线液位监测项目



项目位置

Project Location

陕西省咸阳市

Xianyang City, Shaanxi Province

浙江省舟山市

Zhoushan City, Zhejiang Province

上海市

Shanghai

江苏省南京市

Nanjing City, Jiangsu Province

北京市

Beijing

陕西省西安市

Xi'an City, Shaanxi Province

Parking Lot Monitor Project

车位监测项目



项目位置

Project Location

陕西省西安市

Xi'an City, Shaanxi Province

上海市嘉定区

Jiading District, Shanghai

山西省大同市

Datong City, Shanxi Province

山东省青岛市

Qingdao City, Shandong Province

山东省济南市

Jinan City, Shandong Province

上海市虹桥区

Hongqiao District, Shanghai

江苏省苏州市

Suzhou City, Jiangsu Province

Trash Can Monitor Project

垃圾桶监测项目



项目位置

Project Location

江苏省镇江市

Zhenjiang City, Jiangsu Province

山东省青岛市

Qingdao City, Shandong Province

四川省成都市

Chengdu City, Sichuan Province

江苏省南京市

Nanjing City, Jiangsu Province

浙江省舟山市

Zhoushan City, Zhejiang Province

陕西省西安市

Xi'an City, Shaanxi Province



中国工业传感器分联盟理事长

Chairman of China Industrial Sensors Alliance

中国元协·敏感元件及传感器分会副理事长

Vice Chairman of the China Electronic Components Industry Association, Sensitive Components and Sensors Branch

中国传感器与物联网联盟副秘书长

Deputy Secretary General of China Sensors and IoT Alliance

西安高新区高新企业协会理事

Director of Xi'an High-tech Zone High-tech Enterprise Association

陕西省物联网产业链链主企业

Shaanxi IoT Industry Chain Main Enterprise

陕西省物联网产业联盟理事长

Chairman of the Shaanxi IoT Industry Alliance

西安市科技装备业商会理事

Director of Xi'an Science and Technology Equipment Industry Chamber of Commerce

中国仪器仪表协会传感器分会副理事长

Vice Chairman of the Sensor Branch of China Instrument Association

中国移动物联网联盟执委会智能传感专家

China Mobile IoT Alliance Executive Committee Intelligent Sensors Expert

成为全球传感器界有影响力的创新型公司

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400 029 2168



地址 / 西安市高新区上林苑四路1309号A座6层



电话 / +86-29-88325620



传真 / +86-29-88237768



邮编 / 710119



网址 / www.websensor.cn



邮箱 / sales@websensor.com

Add / F6, Building A, No. 1309 Shanglinyuan 4 Road, Xi'an, China

Tel / +86-29-88325620

Fax / +86-29-88237768

P.C / 710119

Web / www.websensor.com

E-mail / sales@websensor.com

WeChat

