

传承中科创基因 弘扬大国工匠精神

Inheriting the innovation gene of Chinese Academy of Sciences and carrying forward the spirit for craftsmanship of a great nation

中科智成拥有
自主知识产权的产品共四大板块
Four kinds of major products of Zhicheng
with independent Intellectual Property Rights



燃气表电控阀 Gas Meter Electric Control Valve

为各大燃气表公司配套和研发适用于不同流量燃气表的内外置电控阀产品，拥有8大类产品，覆盖民用、商用和工业等领域。产品远销欧盟、南亚国家。

We develop internal and external electric control valve products for major gas meter companies applicable to different flow rates of gas meters, with 8 major products covering civil, commercial and industrial fields. Our products are exported to EU and South Asia countries.



管道燃气电控阀 Pipeline Gas Electric Control Valve

为城镇燃气消费终端提供物联网智能电控阀门，种类齐全，安全可靠，产品型号覆盖DN25~DN200。

We provide IOT intelligent electric control valves for final gas consumption in cities and towns, with a complete range, being safe and reliable. The product models covering DN25 to DN200.



管道燃气自闭阀 Pipeline Gas Self-closing Valve

提供定制化的家用管道燃气自闭阀产品，满足不同阀体材质、额定流量、接口形式、特殊功能的个性化需求。

We provide customized domestic pipeline gas self-closing valves to meet the individual needs of different valve body materials, rated flow, interface forms, and special functions.



物联网智控安全阀 IoT Gas Pipeline Valve

为各大燃气公司提供定制化工商业物联网智控安全阀产品，满足对现场计量或监测设备的数据采集、上传（NB-IoT/4G），实现计量预付费管理、异常情况监控、紧急切断阀门等功能

We provide customized industrial and commercial IoT gas pipeline valves for gas companies to meet their needs for on-site metering or data collection and uploading (NB-IoT/4G) from monitoring equipment, achieving metering and prepayment management, abnormality monitoring and control, emergency cut-off, and other functions.



扫描公众号二维码
关注成都中科智成

成都中科智成科技有限责任公司
CHENGDU ZHICHENG TECHNOLOGY CO., LTD.

地址：中国·四川省·成都市高新区科园南一路7号
电话：+86-28-85193860 +86-28-85250112-8018
传真：+86-28-85193860
网址：www.cdzkzc.com
邮箱：yangna@cdzkzc.com

Address: No.7 keyuan South First Road, High-tech Zone, Chengdu, Sichuan, China
Telephone: + 86-28-85193860 + 86-28-85250112-8018
Fax: + 86-28-85193860
Website: www.cdzkzc.com
E-mail: yangna@cdzkzc.com



物联网智控安全阀 管道燃气电控阀

IOT GAS PIPELINE VALVE
PIPELINE GAS ELECTRIC CONTROL VALVE



相信品牌的力量!!!

TRUST THE POWER OF BRAND!

中国科学院下属国有控股公司

A state-holding company under the Chinese Academy of Sciences

20年+ 燃气智能监测控制研发制造

中国富有成长性及竞争力的燃气智能监测控制优选品牌

第三代物联网智控安全阀、管道燃气电控阀的全新升级必将为燃气智能监测控制市场注入一股新的力量。

产品从设计到制造都贯彻“技术为先，质量为本、安全为首”的理念。

品质出众、安全可靠、经久耐用。

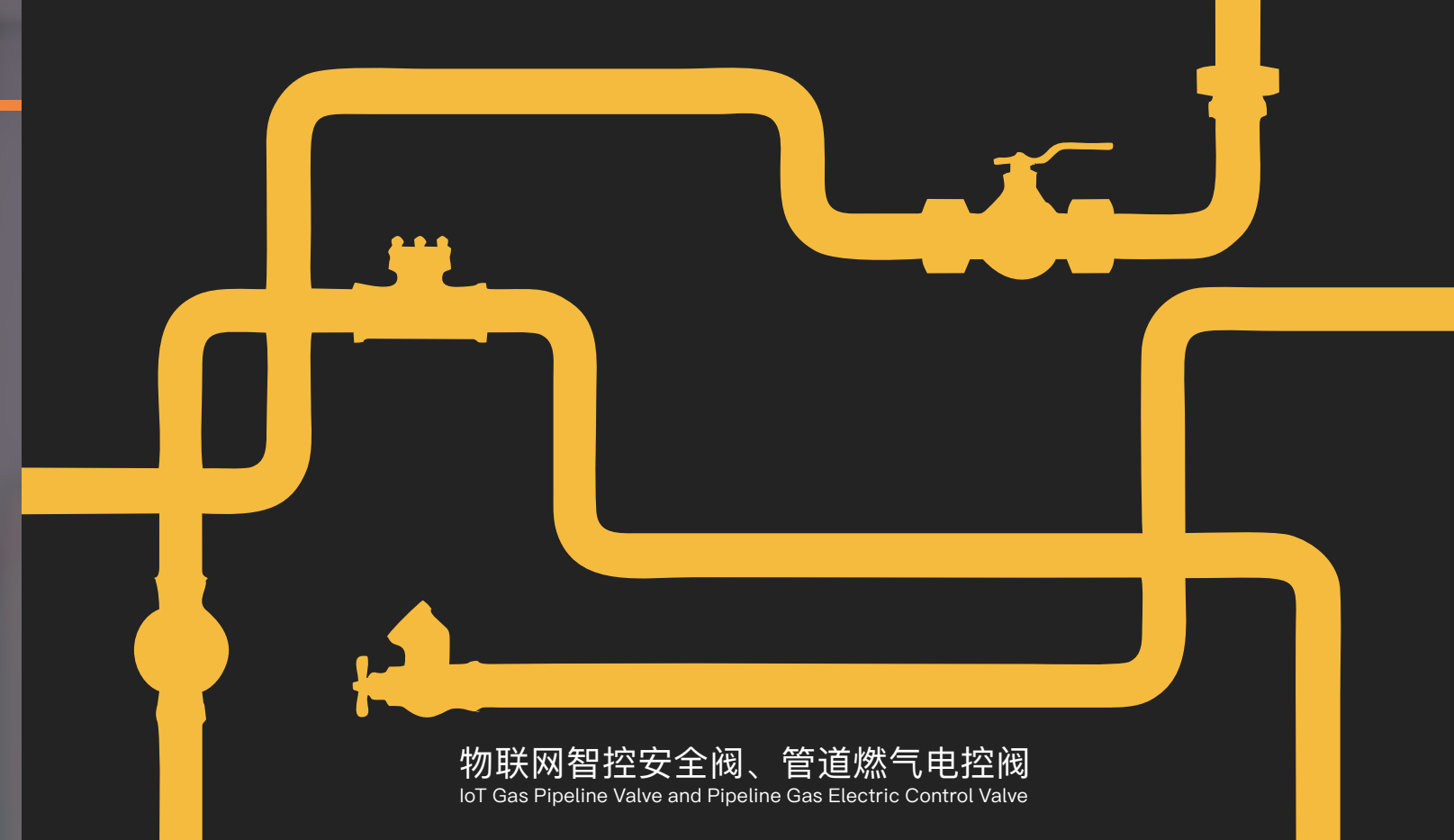
是燃气公司、流量计厂家信赖的首选品牌。

20 years +

R&D and manufacturing of gas intelligent monitoring and control

The preferred brand for intelligent gas monitoring and control with growth and competitiveness in China

The upgrade of the third generation for IoT gas pipeline valve and pipeline gas electric control valve will certainly inject a new force into the gas intelligent monitoring and control market. Products are to implement the "technology first, quality-oriented, and safety first" concept from design to manufacturing. With outstanding quality, being safe, reliable and durable, it is the preferred brand trusted by gas companies and flowmeter manufacturers.

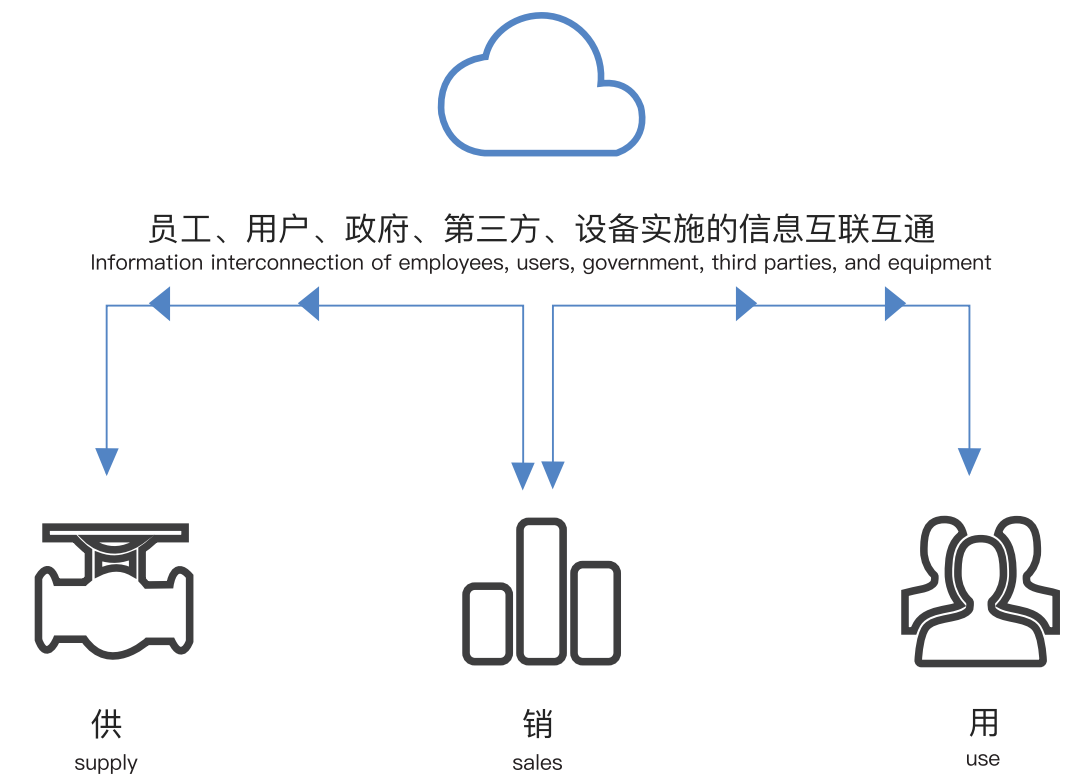


物联网智控安全阀、管道燃气电控阀
IoT Gas Pipeline Valve and Pipeline Gas Electric Control Valve

云端远程智慧燃气平台

CLOUD-BASED REMOTE INTELLIGENT GAS PLATFORM

随时随地，轻松实现燃气供、销、用链的安全在线监测，将燃气事故控制在萌芽状态
Easy online monitoring for the supply, sales and use of gas at anytime, to control gas accidents at the very start



拳头产品全面引领市场

HIT PRODUCTS TO LEAD THE MARKET COMPREHENSIVELY

中科智成的管道燃气电控阀产品主要应用于工商业领域，采用专用的操作系统，针对气体管道消费端做开发制造，实现数据采集、远程数据传输、预付费管理及阀门控制功能。

Zhicheng's pipeline gas electric control valves are mainly used in the industrial and commercial fields. They achieve the functions of data collection, remote data transmission, prepayment management and valve control by using a special operating system and through development and manufacture in view of the pipeline gas consumers.

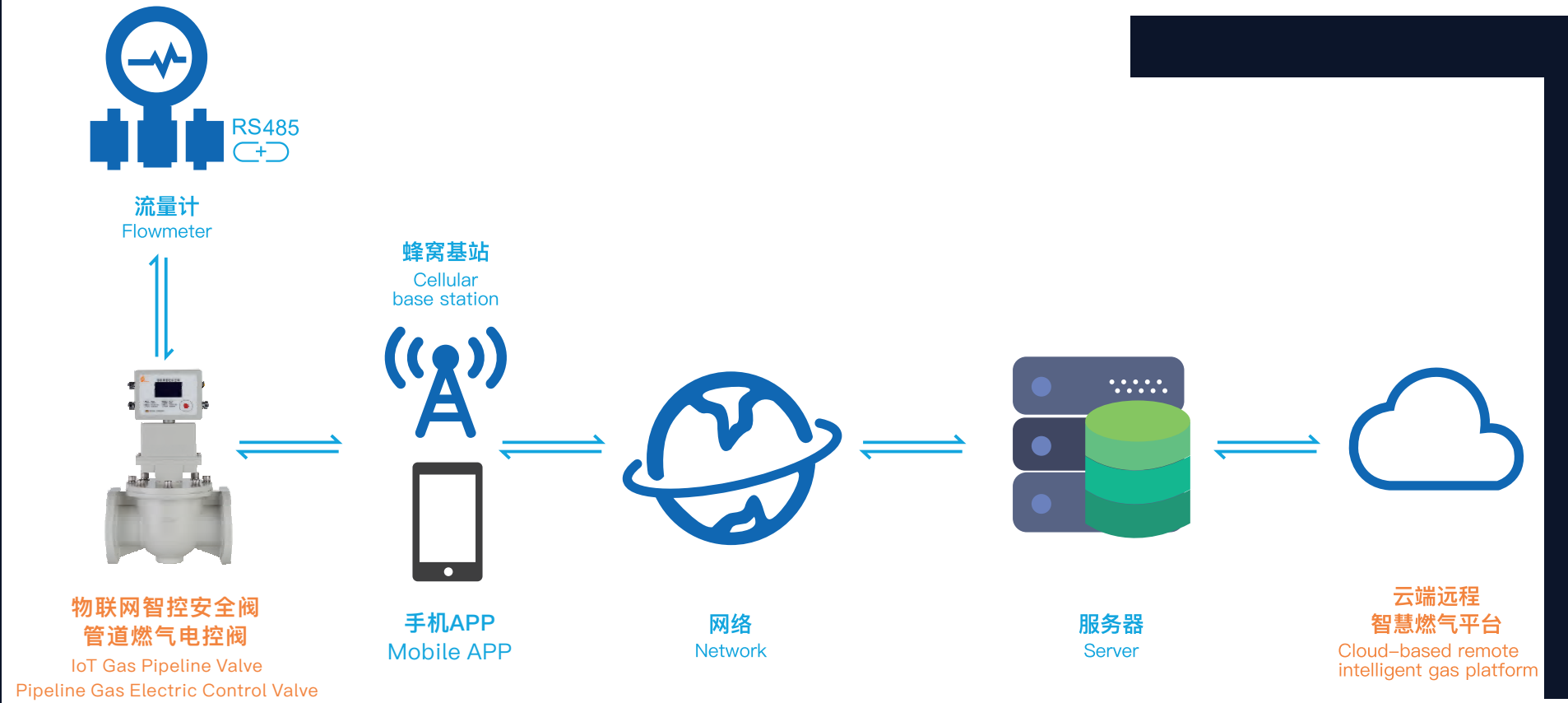
WLK-3 物联网智控安全阀
IoT Gas Pipeline Valve

GDF-1 管道燃气球阀
Pipeline Gas Ball Valve

GDF-4 管道燃气截止阀
Pipeline Gas Shut-off Valve

GDF-5 管道燃气浮动球阀
Pipeline Gas Floating Ball Valve

云端远程智慧燃气平台
Cloud-based remote intelligent gas platform



👍 新安装工程项目首选

The first option for new installation projects

安装物联网智控安全阀可实现数据上传、预付费管理、远程控制开/关阀、故障立即切断等功能，用户可实时查看、线上充值等。

Installation of the IoT gas pipeline valve can realize data uploading, prepayment management, remote control of valves' on and off, and immediate cutoff in case of failure, etc. Users can view in real time, recharge online, etc.



👍 老用户改造工程重要整改环节

An important part of the renovation process for old users



选用我司物联网智控安全阀替换原有IC卡控制器或手动球阀，可实现数据上传、预付费管理、远程控制开/关阀、故障立即切断等功能，用户可实时查看、线上充值等。



By replacing the original IC card controller or manual ball valve with our IoT gas pipeline valve, it can realize data uploading, prepayment management, remote control of valves' on and off, and immediate cutoff in case of failure, etc. Users can view in real time, recharge online, etc.

👍 流量计厂家配套无忧之选

The best choice for flow meter manufacturers

选用我司物联网智控安全阀，实现维护零成本。

Use our IoT gas pipeline valve to achieve zero-cost maintenance.



物联网智控安全阀

IOT GAS PIPELINE VALVE

全面兼容现有市面上所有表具（智能表、流量计等）
Fully compatible with all existing gas meters on the market (smart gas meters, flow meters, etc.)



01 产品概述 PRODUCT OVERVIEW



流量计数据采集
Flow meter's data acquisition

连接流量计，采集流量计数据
Connect to the flowmeter and collect its data.



费用控制
Cost control

实现流量计费用控制
Control the cost of flow meters



状态监控
Status Monitoring

流量计状态监控
用量、电池电压、压力、温度等
Flowmeter status monitoring:
gas consumption, battery voltage,
pressure, temperature, etc.



物联网通信
IOT Communications

NB-IoT(或4G)/蓝牙双物联
Dual IoT: NB-IoT (or 4G) /Bluetooth



云端控阀
Cloud-based valve control

内置阀门，可通断气路
阀门可远程开关
The built-in valves can remotely
turn on and turn off the gas



485连接
485 connection

485接口连接流量计
遵从GB/T19582.1
Modbus协议
The 485 connector
connects the
flowmeter according
to GB/T19582.1
Modbus protocol

02 产品特色 PRODUCT FEATURES



液晶显示
LCD display

点阵液晶显示
可任意组合文字或符号
Dot matrix LCD display
Any combination of text or
symbols is possible



表端智控
Meter-side Smart Control

所有控制功能表端完成
无时间延迟
All control functions are performed at
the meter side, with no time delay.



模组快速更换
Quick module change

通信模组独立设计，
可快速更换适应不同应用环境
Independent design of the communication
modules, which can be quickly changed to
suit different applications



**专用OS
操作系统**
Specialized OS

自有知识产权嵌入式系统软件
Embedded system with
intellectual property rights



APP直接读写
APP direct read/write

自带蓝牙近场通讯功能，通过手机
或平板直接进行通信交互
Self-contained with Bluetooth near-field
communication for direct communication
and interaction via mobile phone or tablet



控制模式互换
Control modes Interchange

远程控制与本地IC控制可实现互换（可选）
Remote control and local IC control are
interchangeable (optional)



兼容遵从GB/T19582.1《基于Modbus协议的工业自动化网络规范 第1部分：Modbus应用协议》的各种流量计
Compatible with various flowmeters followed GB/T19582.1 and Industrial Automation Network Specifications based on the Modbus protocol, the first part: Modbus Application Protocols

03 功能列表 FUNCTION LIST

主要功能 Main Functions

数据采集、状态监控、付费控制、远程控阀
自动抄表、冻结数据、表端日志、日志上报
异常上报、双通道物联

Data collection; condition monitoring; payment control; remote control; Automatic meter reading; data freezing; terminal logs; logs uploading; Abnormality report; dual-channel IOT

缴费充值 Payment and Recharging

抄表云端结算、抄表后付、预存先付
Cloud settlement; postpaid; prepaid

缴费途径 Ways of Charge

APP/公众号/小程序/H5网页 /柜台/代收/柜员机等
APP/ WeChat Official Account/ Applets/ H5 website/
Counter/ Charge collection / Teller Machines

数据采集 Data Collection

- 标况累积量 · Standard accumulation
- 标况流量 · Standard flow
- 工况累积量 · Working accumulation
- 工况流量 · Working flow
- 温度 · Temperature
- 压力 · Pressure
- 电池电压 · Battery voltage
- 计数脉冲 · Counting pulse

状态监控 Condition Monitoring

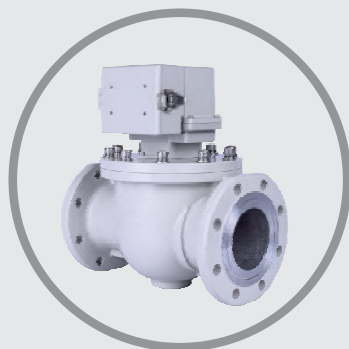
- 启、停信息 · Startup and shutdown information
- 月、日总量信息 · Monthly/daily amount
- 日最大流量信息 · Maximum daily flow amount
- 工况流量超标信息 · Working flow exceeding
- 压力超标信息 · Pressure overload
- 压力故障信息 · Pressure malfunction
- 温度故障信息 · Temperature malfunction
- 状态信息记录 · Status message record

注：需流量计具备此类功能。
Remarks: Flow meters are required to have such functions.

04 主要参数 MAIN PARAMETERS

类别 Items	参数值 Data
可选规格 Type	DN25/32/40/50/80/100/150/200 DN25/32/40/50/80/100/150/200
管道接口方式 Pipe connection method	法兰 Flange
供电方式 Power Supply	一次性锂电或可充电锂电与外部电源组合供电 Disposable lithium or rechargeable lithium combined with external power supply
物联方式 IOT Mode	NB-IoT/4G NB-IoT/4G
公称压力 NP	1.6MPa 1.6MPa
使用压力 Operating Pressure	0~0.8Mpa 0~0.8Mpa
工作温度 Operating Temperature	-30℃ ~70℃ -30℃ ~ 70℃
相对湿度 Relative Humidity	≤ 96%RH ≤96%RH
防爆等级 Explosion-proof Level	Exia IIB T4 Ga Exia IIB T4 Ga
防护等级 Protection Level	IP66 IP66
工作电压 Operating Voltage	DC7.2V DC7.2V
平均工作电流 Average working current	≤ 50mA ≤50mA
外部输入电压 Service Voltage	DC12V DC12V
静态电流 Quiescent current	≤ 30uA ≤30uA
开阀时间 Opening Time	≤ 200s (DC5V, DN25~DN50) ≤ 400s (DC5V, DN80~DN200)
关阀时间 Closing Time	≤ 2s (at DC5V) ≤2s (at DC5V)
输入接口 Input Interface	RS485, 1组; RS232, 1组; RS422, 1组 Rs485, 1 set; RS232, 1 set; RS422, 1 set 外部模拟量输入, 2路 外部开关量输入, 4路 External analogue input, 2circuits External switch input, 4 circuits
输出接口 Output	流量计计数脉冲, 1组 Flowmeter counting pulses, 1 set 外部电源输入, DC12V, 最大2A External power supply, DC12V maximum: 2A 5组: DC5V、DC9V、DC12V、DC15V、 DC24V 5 sets: DC5V、DC9V、DC12V、DC15V、DC24V 电源输出, 输出功率 ≥ 4.8W Power supply output, Output power ≥ 4.8W

管道燃气电控阀 PIPELINE GAS ELECTRIC CONTROL VALVE



GDF-1型管道燃气球阀 GDF-1 Pipeline Gas Ball Valve

- 1、全通径，无压损
 - 2、通径DN25~DN200
 - 3、慢开快关，关阀时间 $\leq 2S$
 - 4、工作压力0.8MPa
1. The diameter between the gas inlet and the gas outlet are the same, so there is no pressure loss
2. Diameter: DN25~DN200
3. Slow opening and fast closing; valve closing time $\leq 2S$
4. Working pressure: 0.8MPa



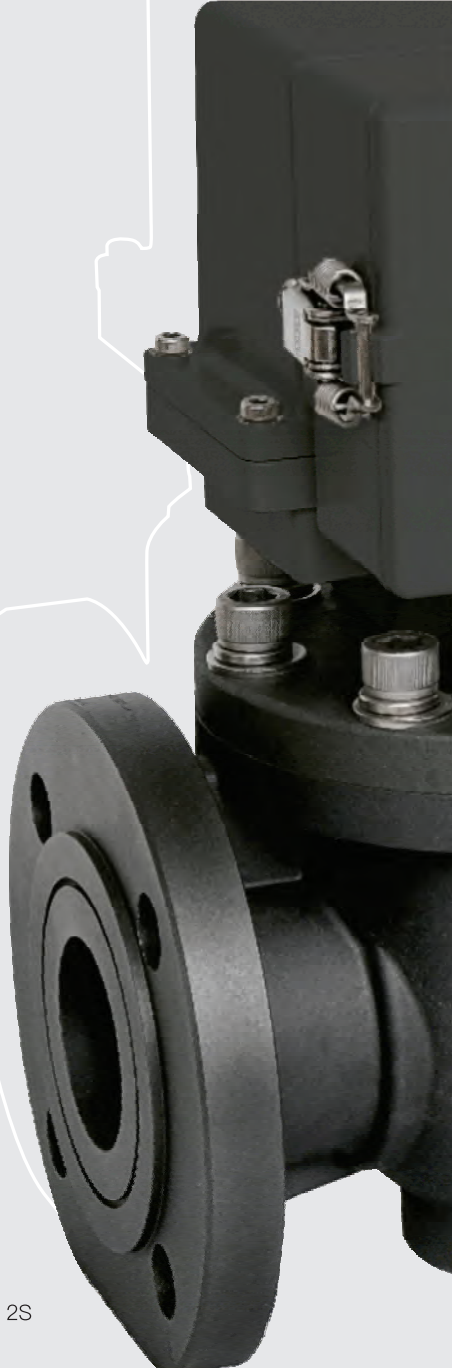
GDF-4型管道燃气截止阀 GDF-4 Pipeline Gas Shut-off Valve

- 1、压损小
 - 2、通径DN25~DN150
 - 3、慢开快关，关阀时间 $\leq 2S$
 - 4、工作压力0.8MPa
1. Low pressure loss
2. Diameter: DN25~DN150
3. Slow opening and fast closing, valve closing time $\leq 2S$
4. Working pressure: 0.8MPa



GDF-5型管道燃气浮动球阀 GDF-5 Pipeline Gas Floating Ball Valve

- 1、全通径，无压损
 - 2、通径DN25~DN100
 - 3、慢开慢关，关阀时间 $\leq 60S$
 - 4、工作压力0.4MPa
1. The diameter between the gas inlet and the gas outlet are the same, so there is no pressure loss
2. Diameter: DN25~DN100
3. Slow opening and slow closing, closing time $\leq 60S$
4. Working pressure: 0.4MPa



三类管道燃气电控阀共同特点：

- 1、密封性好、性能稳定可靠
- 2、具有自主知识产权的结构设计，品质卓越
- 3、阀体为铸造铝合金材质，公称压力PN16，耐冲击、振动、盐雾等
- 4、专用定制电机，高耐腐蚀性，防爆性能优异
- 5、传动结构为可分离式全封闭结构，防护等级IP65，可旋转调整控制面板方向
- 6、附带开到位和关到位信号
- 7、功耗低，驱动电压3V~7.2V
- 8、标准法兰连接
- 9、防爆等级：Exib II B T4 Gb
- 10、工作温度：-30~70°C
- 11、使用寿命：6000次或10年
- 12、电机电阻：21 \pm 1.5 Ω

Common features of the three types of pipeline gas electric control valves:

1. Having good sealability and stable and reliable performance.
2. Having structural designs with independent intellectual property rights. The quality is excellent.
3. The valve body is made of cast aluminum alloy, with a nominal pressure of PN16, resistant to shock, vibration, salt spray, etc.
4. Customized motor with high corrosion resistance and excellent explosion-proof performance.
5. The transmission structure is detachable and fully enclosed, with protection grade IP65, and the direction of the control panel can be adjusted through rotation.
6. With signals of open in place and close in place
7. Low power consumption, drive voltage: 3V~7.2V
8. Standard flange connection
9. Explosion-proof level: Exib II B T4 Gb.
10. Service temperature: -30~70°C
11. Service life: 6000 times or 10 years
12. Motor resistance: 21 \pm 1.5 Ω



选对品牌实力是保障

IT IS A GUARANTEE TO CHOOSE A POWERFUL BRAND



ISO 质量认证体系



ISO 环境管理体系



职业健康与安全管理体系



CE 认证



防爆检验



防爆检验



太平洋承保

中科品质 值得信赖

Zhicheng's quality is trustworthy

企业使命

以客户为中心,专注于绿色能源智能应用领域,提供有竞争力的产品和服务,持续为客户、为社会创造最大价值。

企业愿景

成为绿色能源智能应用的引领者,为绿色能源发展做出技术贡献。

核心价值观

成就客户
奋楫者先
求是创新
安全高效
反思学习

Corporate Mission

Customer-centrism. Focusing on green energy smart applications, we provide competitive products and services, and continue to create great value for our customers and society.

Corporate Vision

To become a leader in the intelligent application of green energy and make technological contributions to its development.

Core Values

Dedicate to every client's success.
Those who work hard will take the lead.
Seek truth from facts and keep innovating.
Keep safety and high efficiency in mind.
Always introspecting and always learning.

中科智成 坚持以“本质安全”为已任

积极研发并推广适用于家庭及工商业用户的燃气安全产品和技术,本质改进燃气安全水平,助力早日实现城镇燃气“零死亡事故”目标。

Zhicheng insist on “essential safety” as its mission

We will actively research, develop and promote gas safety products and technologies for domestic and commercial use to essentially improve the level of gas safety and help achieve the goal of “zero fatalities” of urban gas as soon as possible.



成都中科智成科技有限责任公司是中国科学院下属国有控股公司,二十余年专注于燃气智能监测控制领域,是一家集科研开发、生产加工、经营服务于一体的国家高新技术企业。

公司主要产品涵盖燃气表电控阀、物联网流量计控制器、工商业阀、燃气安全产品等,为国内外燃气行业智能控制和安全保障提供整体解决方案。

公司拥有专业的研发团队,以市场为导向,坚持自主创新,立足于行业发展前沿,积极吸收国内外先进技术,先后攻克多项行业技术难关,获得近百项自主知识产权,已在多个领域得到广泛应用。

未来,我们将在持续优化提升燃气行业智能监测、控制等优势产品的基础上,积极开发拓展氢能等绿色能源智能监测与控制装置,不断满足客户多样化、个性化需求,为落实国家“碳达峰”、“碳中和”战略,推广应用绿色能源贡献力量。

Chengdu Zhicheng Technology Co., Ltd. is a state-holding company under the Chinese Academy of Sciences, which has been focusing on the field of intelligent gas monitoring and control for more than two decades, and is a national high-tech enterprise integrating scientific research and development, production and processing, and business services.

The company's main products include gas meter electric control valves, IoT flow meter controller, industrial and commercial valves, and gas safety products, providing solutions for intelligent control and safety protection of gas industry at home and abroad.

The company has a professional R&D team. It is market-oriented, insists on self-innovation, stays at the forefront of industry development, actively absorbs advanced technologies from home and abroad, and has overcome many technical difficulties in the industry and obtained nearly 100 independent intellectual property rights, which have been widely used in many fields.

In the future, we will continue to optimize and improve our advantageous products such as intelligent monitoring and control for the gas industry, and actively develop and expand intelligent monitoring and control devices for green energy such as hydrogen energy to meet the diversified and personalized needs of our customers and contribute to the implementation of the national “carbon peak” and “carbon neutral” strategies and the promotion of the use of green energy.





攻克**多项**技术难关
 获得近**100项**自主知识产权

Overcome multiple technical difficulties
 Obtained nearly 100 independent intellectual property rights

技术研发 TECHNOLOGY R&D

公司以市场为导向，坚持自主创新，先后攻克多项结构、材料技术难关，获得近百项自主知识产权，专业技术在行业内处于领先地位，并在多个领域得到广泛应用。

Guided by market, insisting on independent innovation, Zhicheng successfully overcome a number of structural and material technical difficulties, and obtain nearly a hundred independent intellectual property rights. Our professional technology is in a leading position in the industry and is widely used in many fields.



品控系统

QUALITY CONTROL SYSTEM

中科智成着力打造精益生产、智能制造模式，拥有完善的生产管理体系、一流的工艺技术、先进的自动化生产线和精密的检测设备。公司质量保证体系健全，先后通过质量、环境、职业健康安全管理体系及安全生产标准化三级企业认证，实现过程控制标准化、规范化、科学化。公司监视和测量设备先进，产品质量稳定可靠。

Zhicheng focuses on building a lean production and intelligent manufacturing model, with a complete production management system, first-class process technology, advanced automated production lines and precise testing equipment. We have a strong quality assurance system, and have certifications of ISO90001, ISO14001, OHSAS18001 and safe manufacturing standardization. Our monitoring and measuring equipment is advanced, and the product quality is stable and reliable, which realize the standardization and scientification of process control.

全流程 质量管控

Quality control of the whole process



严格按照质量管理体系要求进行来料管理、生产过程管理、产品出厂检验等；成熟产品每年批量进行可靠性测试，保证产品零缺陷。

Strictly follow the requirements of the quality management system to carry out incoming material management, production process management, and product delivery inspections; mature products are subject to reliability testing in batches every year to ensure 0 defect.

智能制造 精益生产

Intelligent manufacture
Lean production



持续推进自动化生产，升级检验设备及生产管理系统，以机代人，实现高效率低消耗、高品质零失误。

Continue to promote automated production, upgrade inspection equipments and production management system, and replace people with machines to achieve high efficiency, low consumption, and high quality without errors.

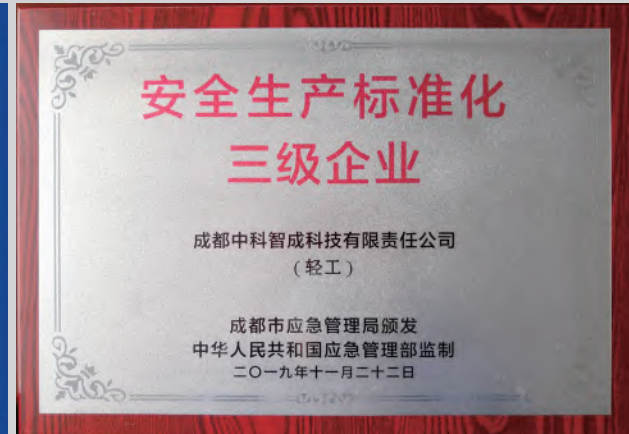
标准化 研发

Standardized R&D



产品的研发、改进均严格按照国家、行业、企业标准进行试验验证，并取得多项国家指定检测机构的检验证书。

Product development and improvement are strictly tested and verified in accordance with national, industry, and corporate standards, and have obtained multiple inspection certificates from national designated testing institutions





管道燃气电控阀年产量

≥20000台

Annual output of pipeline gas electric control valve ≥ 20000

生产能力

PRODUCTION CAPACITY

公司拥有配套的加工中心，可控的供应链条，精密的检验、监测设备，充足的生产场地和人员，严格执行精益化生产模式，产品质量稳定可靠。年产量≥2万台套。

Zhicheng has a supporting processing center, a controllable supply chain, Precise inspection and monitoring equipment, sufficient production sites and personnel. We strictly implement the lean production model, and the product quality is stable and reliable. Annual output ≥20,000 units.

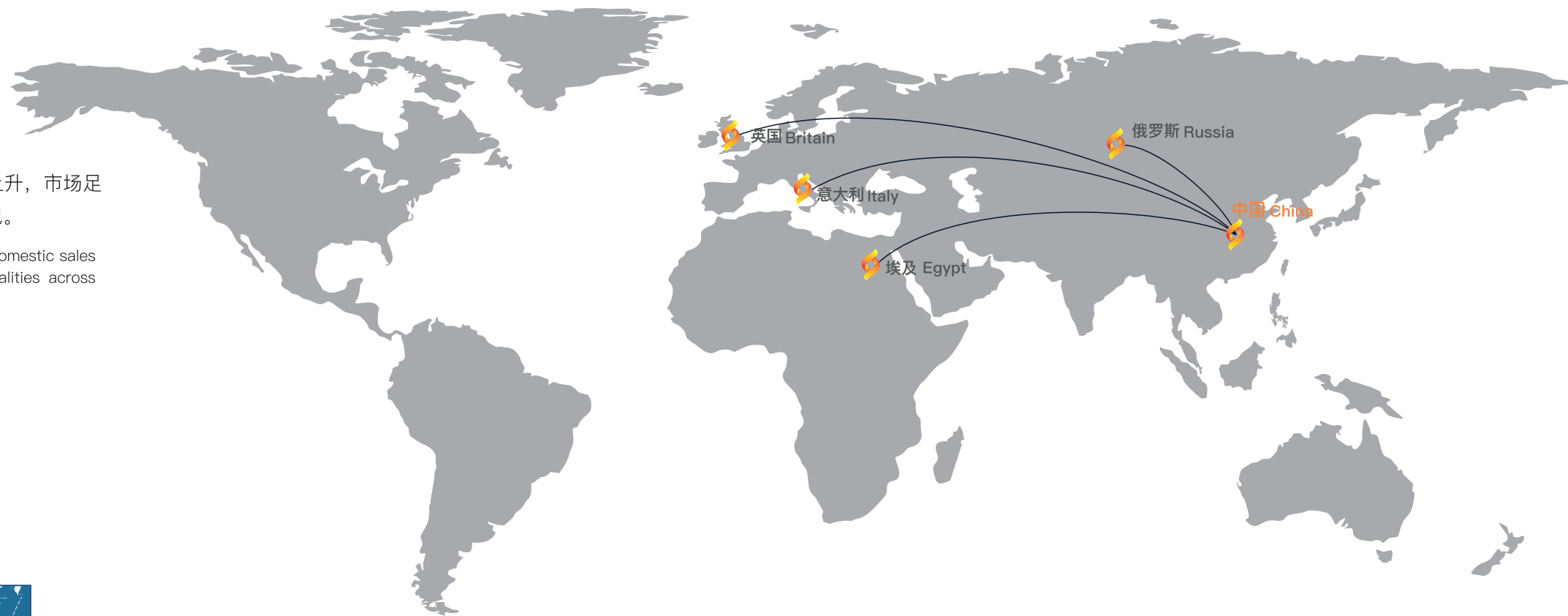
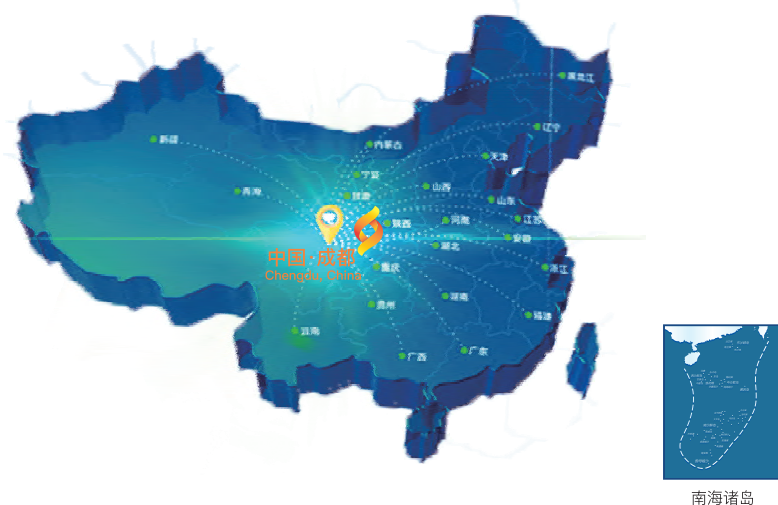


一站式服务体系

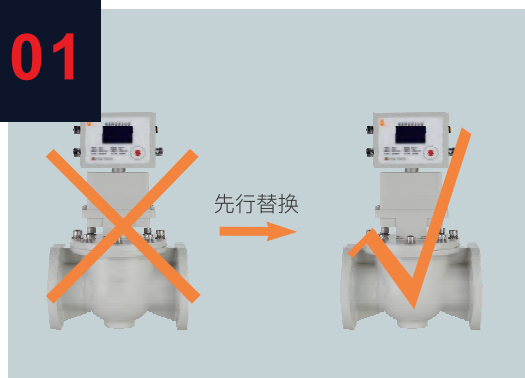
ONE-STOP SERVICE

产品出口意大利、埃及、俄罗斯、英国.....等国家，国内销量稳步上升，市场足迹遍布全国34个省市自治区，将为燃气智能监控行业的格局带来全新面貌。

The products are exported to Italy, Egypt, Russia, UK ... and other countries, and the domestic sales are steadily increasing. Our products have been sold in 34 provinces and municipalities across China, bringing a new image to the gas intelligent monitoring industry.



01



推行“先行替换”服务
Implement the "replacement precedes problem solving" service

售后置前，无忧之选。
Advanced after-sales service ensure your worry-free choice.

02



定制化服务
Customized Services

根据客户要求定制产品及方案，满足不同需求。

Customize products and solutions according to customer requirements to meet different needs.

03



高效配送
Efficient distribution

常规产品或半成品备货，可及时的提供产品配送和解决方案。

Regular products or semi-finished products are stocked, and product distribution and solutions can be provided in time.

04



专业的技术服务
Professional technical services

专业的售前和售后技术团队，为客户提供7*24小时咨询及上门服务。

Professional pre-sales and after-sales technical teams provide customers with 7*24 hours consultation and on-site services.