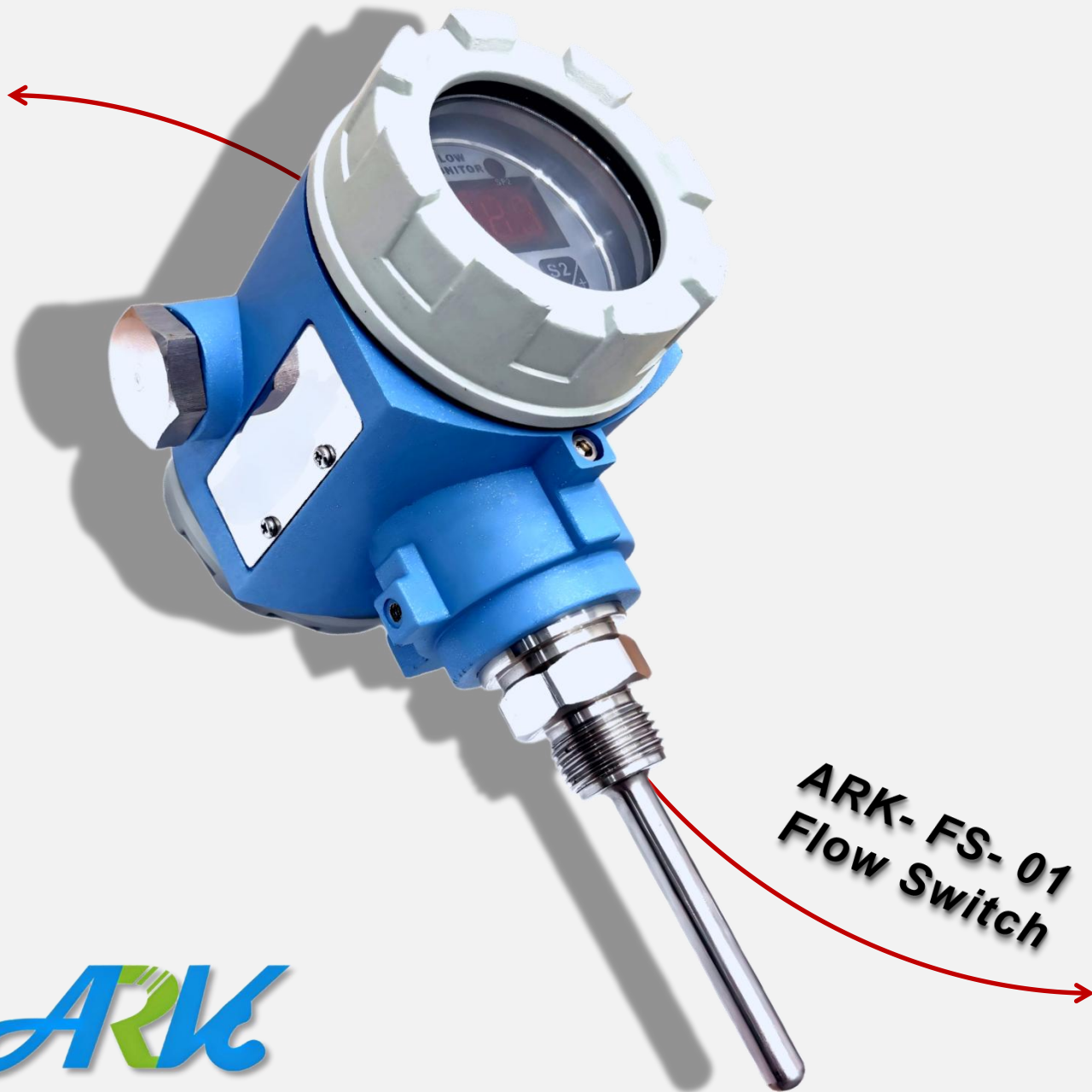




艾克设备工程有限公司
ARK Equipment & Engineering Co.,Ltd.
艾克空调通风设备（昆山）有限公司
ARK HVAC & REF (Kunshan) Co.,Ltd.



防爆流量开关样册

ARK Ex-proof Flow Switch Sample



适用于LNG 甲醇 氨气双壁管
Suitbale for LNG, Methanol, and NH₃ Double-wall pipe

基于热学原理，密封探头内装有两个电阻器：一个作为检测电阻器进行加热，另一个则作为参考电阻器。当介质流经探头时，加热电阻器上的热量被带走，其电阻值随之发生变化；该两个电阻器之间的电阻差被用作判断流速的依据。

Based on the thermal principle, two resistors are contained in the sealed probe, one of which is heated as a detection resistor and the other is not heated as a reference resistor. When the medium flows, the heat on the heating resistor is taken away, the resistance value is changed, and the difference between the two resistors is used as the basis for judging the flow rate.

当机械或电子设备流量超过或下降到低于设定值时，流量开关向操作或控制系统发送信号。

Flow switches are either mechanical or electronic devices that provide a signal to an operator or control system that the flow rate is exceeding or has fallen below a setpoint value.



ARK特有防伪设计 (on going)
ARK Unique Anti-counterfeiting Design

一设备 一编码
One Device, One Code

NFC+二维码双重验证
NFC + QR Code Double Authentication

溯源安心 品质保证
Traceability & Reliable



设置范围 Setting range:	1.5-20 m/s (air)
信号输出 Signal output:	继电器输出 Relay out
供电电源 Power supply:	24V±20%DC
瞬间最大电流 On-current:	maximum 400mA
空载最大电流 No-load current:	maximum 80mA
流量显示 Flow indication:	LED row (6)
设置方式 Setting method:	手动旋钮调节 Manual knob setting
压力范围 Pressure range:	100bar
温度梯度 Temperature gradient:	4°C/s
响应时间 Response time:	1-13秒, 通常为2秒 1-13S, typical value 2s
初始化时间 Initialization time:	8S
电气保护 Electrical protection:	反相位、短路、过载保护 reverse phase, short circuit, overload protection
防护等级 Protection level:	IP67
接线方式 Wiring method:	防爆连接器, 电缆紧固件 explosion-proof connector, cable fastener
材质 Material:	探头: 不锈钢; 外壳: 铸铝 Probe: stainless steel Casing: cast aluminum
防爆等级 Explosion-proof grade:	Ex d II C T6



选型表格

Selection Table

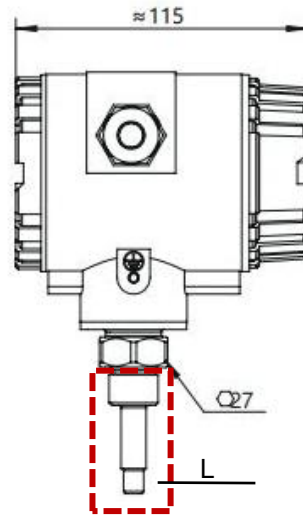
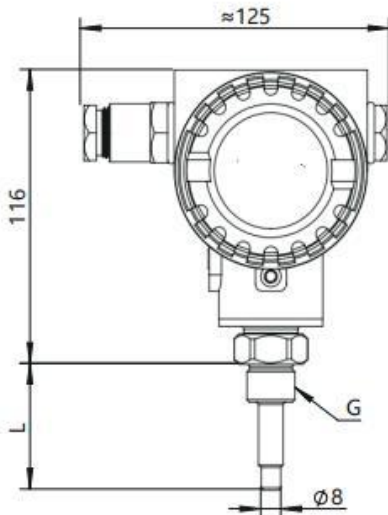
ARK-FS-01

Flow Switch



ARK-FS-01 -	G/ NPT	DC	P/ C	Q	E	L	详述 Details
ARK-FS-01 -							ARK-FS-01 防爆流量开关 ARK-FS-01 Explosion-proof Flow Switch
	G12 /NPT14 /NPT34						★接口螺纹: G1/2外螺纹 ★Interface thread G1/2 external thread /接口螺纹: NPT1/4外螺纹 Interface thread NPT1/4 external thread /接口螺纹: NPT3/4外螺纹 Interface thread NPT3/4 external thread
		DC					★DC24V±20%供电电源 ★DC24V±20% power supply
			P/C				★继电器输出/PNP信号输出/ ★Relay out/PNP output/
				Q			★电气连接: M20*1.5 ★Electrical connection:M20*1.5
					E		★防爆(Exd IIC T6) ★Explosion-proof (Exd IIC T6)
						L	探头长度 (毫米) Probe length (mm)
常规管路直径 Diameter	DN50		DN65		DN80		DN100
对应探头长度 L Probe length (mm)	30mm		40mm		50mm		70mm

*★标识项为常规项，无标识项为可选项。
 *Items marked with ★ are standard items, and unmarked items are optional.
 *其余探头长度可定制。
 *The lengths of the remaining probes can be customized.
 *为保证测量的准确性与稳定性，建议管内风速保持在 1.5 米 / 秒以上。
 *For the accuracy and stability of the measurement,it is recommended that the wind speed inside the tube be kept above 1.5 m/s.





EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

In accordance with Article 10.1 of EU Regulation 391/2009

Certificate No:
MRA000005B

This Certificate is issued to
Ark HVAC & Ref (Kunshan) Co., Ltd.
Kunshan, Jiangsu Province, China

for
Flow Switches

with type designation(s)
ARK-FS-01X

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Flow Switches

Intended service
Flow switches for control, monitoring, alarm, and safety functions subject to classification.

Temperature [°C]: -25 to +70
Vibration: ±1mm / 0.7g
EMC: General power distribution zone
IP Code: IP67

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2031-09-01**.

Issued at **Høvik** on **2026-09-02**

DNV local unit: **Shanghai**

Approval Engineer: **Sonali Marathe**



for **DNV**

This document has been digitally signed and will
therefore not have handwritten signature

Frederik Tore Elter
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



防爆合格证

CONFORMITY CERTIFICATE OF EXPLOSION-PROOF

证 号: CCRI 24.8037X

Certificate No.: CCRI 24.8037X

持证单位: 艾克空调通风设备(昆山)有限公司
Certificate holder ARK HVAC & R (KunShan) Co.,Ltd.

生产单位: 艾克空调通风设备(昆山)有限公司
Manufacturer ARK HVAC & R (KunShan) Co.,Ltd.

产品名称: 隔爆型热式流量开关
Name of Product Explosion proof thermal flow switch

型号规格: ARK-FS-01X DC24V 4A
Type of Product

防爆标志: Ex db IIC T6 Gb; Ex tb IIIC T80°C Db
Marking

技术文件: Q/AK 01-2024
Tech Doc

图 号: ARK-FS-01X.00.00
Drawing No.

备 注: 1. 外壳防护等级: IP67;
2. 使用环境温度: $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$;
3. 本产品配用的填料函式电缆引入装置已取得防爆电气 CCC 证书, 使用时按其使用说明书的规定对电缆引入装置进行填料密封;
4. 使用时应考虑测量介质的温度影响, 确保满足温度组别的要求;
5. 关联检验报告编号: 2024540904.

经过上述产品图样及技术文件的审查和样品的检验, 其符合以下现行国家标准:
By verifying the drawings and technical documents and checking samples, the product complies with the following standards:
GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.31-2021

发证日期: 2025 年 1 月 3 日
Date of Issue: 3rd January 2025

有效期至: 2030 年 1 月 2 日
Date of Expire: 2nd January 2030

批 准:
Approval



CCRI (Beijing) Testing Technology Co., Ltd.

煤科(北京)检测技术有限公司

(国家安全生产北京矿山井巷设备与矿用油品检测检验中心)

注: 本证仅对与送检样品一致的产品有效。

公司地址: 北京市北京经济技术开发区(大兴)采育镇南大街5号6号楼

防爆合格证查询网址: <http://jc.ccritle.com.cn>

检验检测专用章

检验检测专用章

电话: 010-89268018

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