

# BSKY

SINCE 1995 蓝天电子股份

# JB-QBC-BS10

高度集成的船用火灾自动报警 & 机舱水基灭火复合控制系统

为您简化设计、节约空间、降低成本

Fixed fire detection and fire alarm system & Water mist extinguishing control system to simplify your design, save space and reduce cost.



获得欧盟 MED 实验室认证, CCS、DNV、BV、LR 船级社型式认可, 获得发明专利证书、实用新型专利证书、外观设计专利证书。

The sole European Union MED Laboratory Certification obtained in China wins the main classification society type approval such as: CCS,DNV,LR,BV. The system is granted with Invention Patent Certificate, Utility Model Patent Certificate, and Design Patent Certificate.

# 关于蓝天

## About Brightsky

无锡蓝天电子股份有限公司创建于1995年，是一家专业从事陆地建筑消防及船舶配套消防产品、船舶岸电接收装置、国际船舶压载水管理系统等产品集研发、生产、技术服务于一体的国家级高新技术企业，国家工信部专、精、特、新“小巨人”企业。

公司占地25000平米，建筑面积62700平米，具有强大的技术研发和持续创新能力，现有员工300多人，分别拥有博士、硕士研究生28人，本科生50多人分布在科研、生产、质量、市场等各部门。公司获有国内外发明专利、实用新型专利百余项，是江苏省首批知识产权管理体系建设示范企业，设有江苏省船级电子工程技术中心，江苏省教育厅挂牌的研究生工作站。

公司使命：以高科技系统技术保护人民生命和财产安全，为快速成长并具有远大前程的建筑和船舶行业提供安全和环保类高品质的产品及服务。我们会以自己的技术专长在这一领域“永继经营”。

Wuxi Brightsky Electronic Co., Ltd. was founded in 1995. It is a High-tech enterprise specializing in the R&D, manufacture and technical services of building fire fighting, marine fire fighting, AMP shore power receiving system, ballast water management system and other products. The company covers an area of 25,000 m<sup>2</sup> and a building area of 62,700 m<sup>2</sup>. It has strong technology research and development and continuous innovation capabilities. It has more than 300 employees, and over 20 doctoral and master's degree holders are distributed on the front lines of scientific research and production management. It has Marine Electronic Engineering Technology Center of Jiangsu Province and Graduate student workstations licensed by Education Department of Jiangsu Province. Creating values for customers, creating opportunities for employees and creating benefits for society and shareholders are the core values of the Brightsky.

The leading products of the company have obtained the type approval certificates those were issued by various classification societies around the world such as CCS, LR, DNV, BV, ABS, KR, NK, and RS according to industry requirements. The sales and service network covers the entire countries and major ports in the world.

## 完善的生产现场是产品品质的保证

Automatic machining and inspection facility support a high quality product

英国进口测试烟箱  
符合英国消防BS3116标准及中国GB4715-2005标准  
Smoke sensing chamber for testing from Unitek  
Meet the UK standard BS3116 and china standard GB4715-2005

电磁兼容(EMC)性能实验室  
EMC Test Room for Electronic Products

全自动SMT表面贴装生产流水线车间 SMT surface mounting line



我们持之以恒  
正在获取更多的船级社型式认可证书  
以满足不同客户的需求

We are perseveringly trying to get more relevant technical certifications to provide more security to users.

## JB-QBC-BS10 系统认证

国内唯一获欧盟 MED 实验室认证，并获 DNV、CCS、BV、LR 船级社型式认可，获得国家发明专利证书、实用新型专利证书、外观设计专利证书。

JB-QBC-BS10 控制器已通过 Apollo 测试，批准可用于 XP95 和 Discovery 数字通信，协议。

## JB-QBC-BS10 System Certification

The system obtains the sole certification of European Union MED Laboratory in China, the type approval of DNV, CCS, BV, LR, and national-level Invention Patent Certificate, Utility Model Patent Certificate, and Design Patent Certificate.

JB-QBC-BS10 Control Panel has been tested in accordance with Apollo test schedule and approved for use with XP95 and Discovery digital communications, protocols and devices.



# 上海世博会 · 巴西奥运会 · 世界杯 船舶消防产品供应商

## Shanghai Expo · Brazil Olympic Games · World Cup Marine Fire Fighting Product Supplier

蓝天电子凭借对消防产品的深刻理解和辛勤耕耘，携研发团队设计的 JB-QBC-BS10 系统赢得了来自权威部门的首肯。由于系统具有高度的可靠性在国内外船舶消防中得到了广泛的采用及受到高度的评价。

Brightsky Electronic, together with the JB-QBC-BS10 system designed by its R&D team, wins the approval of both domestic and foreign technical authorities by virtue of its profound understanding and industrious efforts on fire fighting products. Due to the high reliability, the system is widely applied and highly evaluated in domestic and foreign marine fire fighting.

BS10 型控制主机  
Fire alarm controller

感烟探测器  
Photoelectric smoke detector

感温探测器  
Heat fire detector

火焰探测器  
Infrared flame detector

手动报警按钮  
Manual fire alarm button

水基灭火系统  
Water mist extinguishing control system



中远海运发展股份有限公司, 青岛轮、运港轮 5600TEU 选用  
Applied in 5600TEU Qindao and Yungang ship by COSCO Shipping Development Company Limited.



中远航运股份有限公司, 36000T 重吊船选用  
Applied in 36000DWT heavy lift vessel by COSCO Shipping Development Company Limited.



上海国际港务集团有限公司, 上海港引航船选用  
Applied in pilot ship by Shanghai international port (group) co.,Ltd.



上海世博期间 22 条浦江游览与渡船选用  
Applied in 22 sightseeing boats and ferryboats in Huangpu River during Shanghai Expo.

# 火灾自动报警器控制器

## Fire Alarm Controller

### 集成整船火灾报警和机舱细水雾灭火控制功能于一体

Combining ship fire alarm system with cabin water mist fire suppression system



壁挂式安装 | Wall type

#### 提供广泛的信息 Provide Extensive Information

火警 2(3)	
首火警:	分区 1 感烟 1004 桥楼
2	分区 2 感烟 2001 二楼宿舍
OK- 确认报警, 按右键查看详情	
警铃延时 100 秒	光消音 - 关闭声光音响

#### 易于操作 Easy to Operate

状态	
1	火警 (003)
2	监督 (000)
3	联动 (000)
4	故障 (000)
5	屏蔽 (000)
6	测试 (000)
按数字键 1-6 选择菜单项	

故障 1(1)	
1	分区 2 感烟 2001 二楼宿舍
OK- 确认报警, 按右键查看详情	
光消音 - 关闭板面音响, 声光消音 - 关闭声光音响	

#### 记录火灾报警及其它信息 Record Fire Alarm and Other Information

火警记录 (010)	
1	火警 分区 2 感烟 2001 二楼宿舍 2011/06/25 17:50
2	火警 分区 1 感烟 1004 廊桥 2011/06/25 17:00
按左右键翻页	

其他记录 (119)	
1	火警 分区 2 感烟 2001 二楼宿舍 2011/06/25 17:50
2	火警 分区 1 感烟 1004 廊桥 2011/06/25 17:00
按左右键翻页	

- 获得欧盟 MED 指令认可
- 同时满足《国际消防安全规则》第 9 章 MSC.1/Circ.1387 应用 A 类机器处所的固定式局部水基灭火系统
- 127x8 回路 = 1016 最大编址容量
- 火灾探测器和消防联动控制可编程共享总线, 降低系统布线数量, 提高系统可靠性
- 壁挂式、嵌入式二种安装方式可选择
- 控制器和探测器均嵌入智能算法, 降低系统误报率
- 选择性探测器隔离功能、使用系统维护检修
- 地址卡指示牌, 便于巡视人员直观获得探测器地址号
- 报警点可直接用文字表示实际被监视部位
- LCD 屏多信息同屏显示, 中文、英文双语转换
- Marine Equipment (MED) certification by DNV
- Meet the standard MSC.1/Circ.1387 (revised guidelines for the approval of fixed water-based local application fire-fighting systems for use in category a machinery spaces)
- Max. points number 127X8(LOOP)=1016
- Fire alarm detector and association action are used the same bus, reduce the wires used in the system and enhance the reliability
- wall type and flush mounting type can be selected
- intelligence algorithms are used in controller and detector, reduce the mis-alarm event
- Isolate the detectors if needed, convenient to maintenance
- Address card, convenient to the user to identify it
- Display the relative place information if the detector send out alarm.
- Many information is displayed in the same LCD screen. 2 language can be selected: english and chinese.

嵌入式安装 | Flush mounting type

# 火灾探测器

## Fire Detector

### 减少误报的秘密

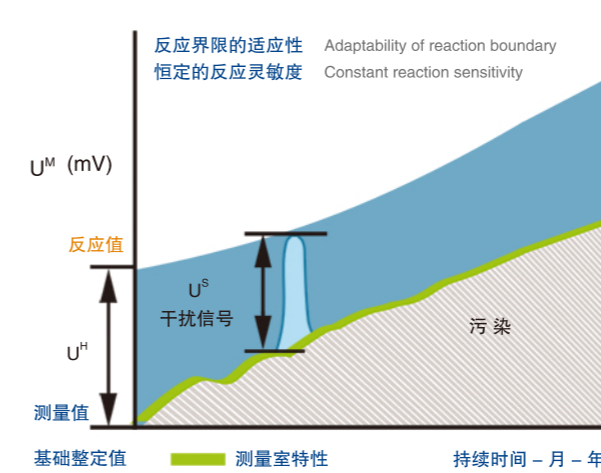
Secret of Reducing False Alarm



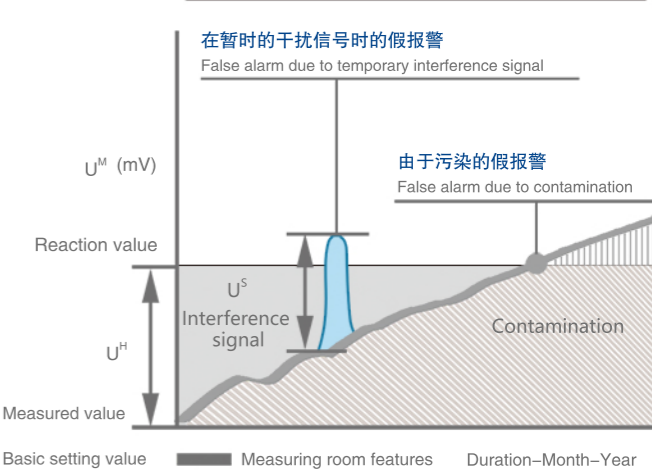
BS10 系统火灾探测器采用数字量传输及浮动定值处理技术, 与常规火灾探测器相比其根本区别在于火灾探测器没有固定的报警阈值, 当环境改变或探测器受环境污染变质时, 其内部智能算法会自动识别并调整报警阈值以适应新的环境和状态, 对探测器的这种阈值漂移补偿功能使的每个火灾探测器有一个对于外界环境相对恒定的灵敏度。

BS10-system fire detectors adopt digital value transmission and floating threshold value processing technology, and their basic difference from normal fire detectors is that they have no fixed alarm threshold, i.e. when the environment changes or a detector is contaminated by the environment, its internal intelligent algorithm will automatically identify and adjust the alarm threshold to adapt to the new environment and condition, so the function of threshold drift compensation enables every fire detector to has a sensitivity relatively constant to external environment.

#### BSKY 报警系统特征 Features of BSKY Fire Alarm System



#### 常规探头特征 Features of Normal Detectors

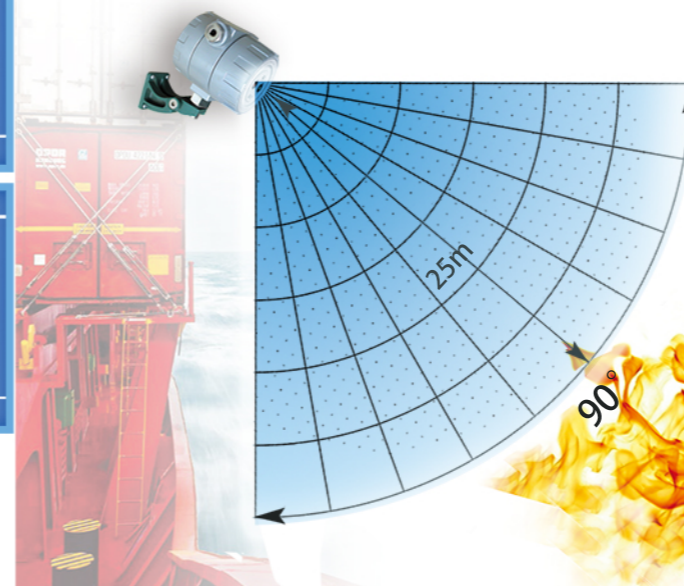


# 红外火焰探测器

## Fire Alarm Controller

### 红外双波段+动态闪频识别 有效抵御非燃烧引起的误报警

Dual Band Infrared Ray + Dynamic Flash Frequency Identification  
Effectively Prevent False Alarm Caused by Non-combustion



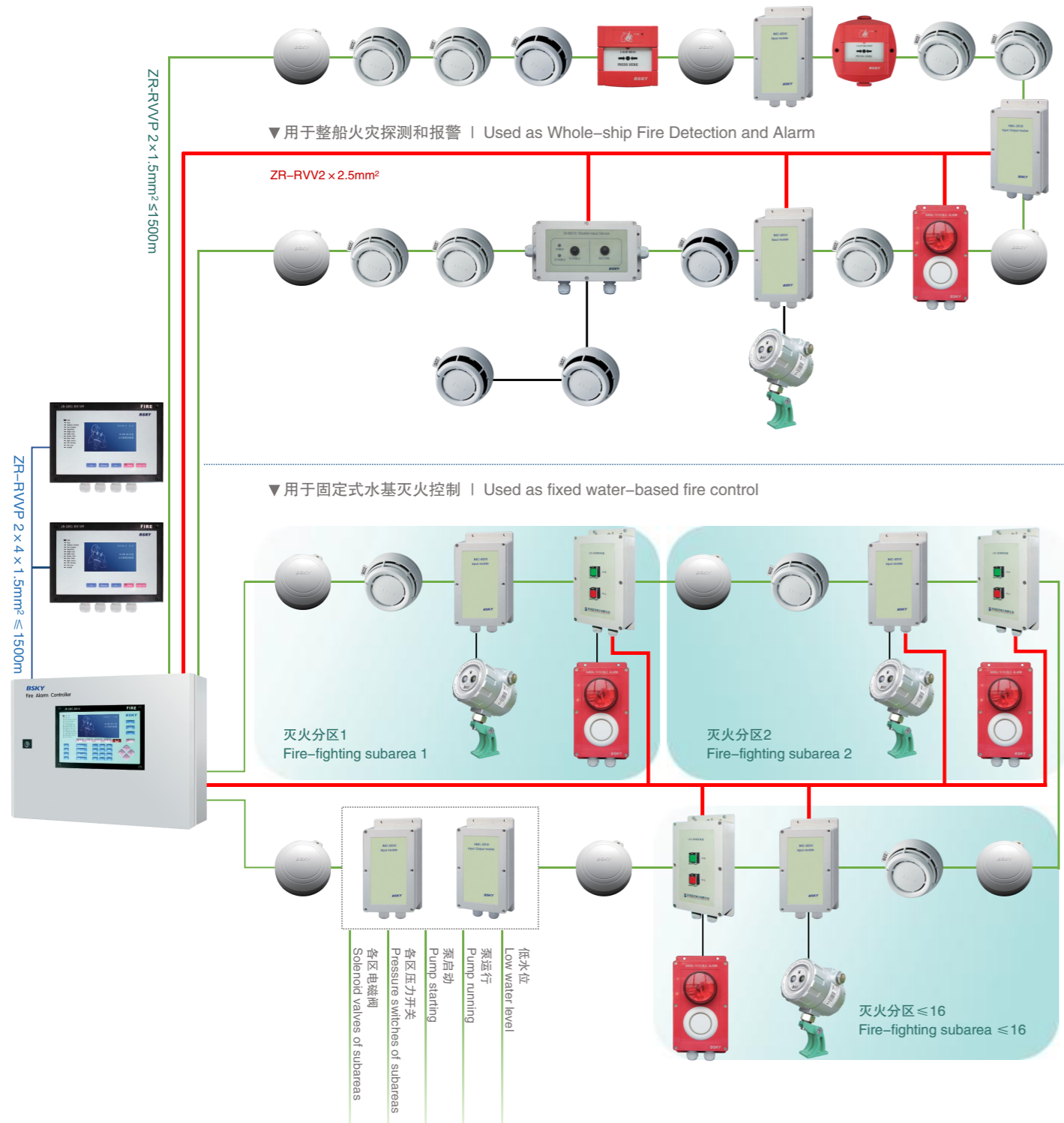
探测视场角为 120 度的扇形圆锥区域, 中心直线距离可以达到 25 米。蓝色区域为探测器的有效探测区域。

A sector and conical zone with detection field angle of 120°, in which the center straight detection distance can reach 25m. The blue zone is the effective detection zone of detector.



# BS10船用火灾报警&水基自动灭火控制系统示意图

Diagram of fire alarm system and water mist extinguishing control system



# 技术规格

Technical Specifications



型号名称   Type and name	JB-QBC-BS10 火灾报警控制器 Fire alarm controller	JB-QBC-BS10R 火灾显示盘 Fire indication panel
主电源   Main power supply	AC 110/220V (+10%~-15%), 50HZ/60HZ	DC 24V ± 10%
应急电源   Emergency power supply	AC 110/220V (+10%~-15%), 50HZ/60HZ	---
船用直流备电   Backup DC power for ships	DC 24V (+30%~-25%)	---
内部蓄电池   Internal battery	DC 24V, 2.2AH	---
功耗   Power consumption	监视状态: ≤10W; 报警状态: ≤12W Monitoring status: ≤10W; Alarm status: ≤12W	监视状态: ≤1.5W; 报警状态: ≤2.4W Monitoring status: ≤1.5W; Alarm status: ≤2.4W
执行标准   Standard	EN-54/2, 4	---
回路板数目   Number of loop boards	最多2个   Two at most	---
每块回路板的容量   Capacity of each loop board	4个环形回路, 每个回路最多接128个报警点 4 circular loops with 128 alarm points each	---
手报火灾报警按钮的报警时间 Alarm time of manual alarm	≤5s	---
探测器的报警时间   Alarm time of detector	≤10s	---
回路最大传输距离   Loop max. Communication distance	≤1500m	---
控制器与火灾显示盘通讯的最大传输距离 Communication distance between detector and fire indication panel	≤1500m	≤1500m
布线方式   Way of wiring	BS10系列报警点-2线制, 无极性 BS10系列模块-4线制 BS10-series alarm point - 2 wiring system, non-polar BS10-series module - 4 wiring system	---
灭火保护区   Fire protection zone	最多16个灭火保护区,可配置在任一独立回路 Max. 16 Fire protection zone, they can be set to any separate loop	---
控制器输出   Output of the device	<b>无源触点输出, 触点容量为1A, DC30V:</b> — 火警输出6组, — 火警延时输出1组, — PA输出1组, — 故障输出4组, — 电源故障输出2组, — 系统故障输出2组 <b>有源输出, 输出电压DC24V, 最大电流1A:</b> — 火警延时输出1组, — 门吸输出1组。 <b>Dry contact output, contact capacity 1A, DC30V:</b> — Fire output 6 — Fire delay output 1 — PA output 1 — Fault output 4 — Power fault output 2 — System fault output 2 <b>Power supply to the output, DC24V, max. current 1A:</b> — Fire delay output 1 — Door hold output 1	---
外部报警输入   alarm input from other system	无源输入触点2组   2 sets of passive input contacts	---
安装方式   Way of installation	壁挂式 / 嵌入式   wall type / flush mounting type	壁挂式 / 嵌入式   wall type / flush mounting type
火警历史记录   Fire alarm history records	最多999条   Max 999 instances	---
其它历史记录(包括上电, 故障, 联动等等) Other history records	最多999条   Max 999 instances	---
工作温度   Working temperature	5°C~55°C	5°C~55°C
相对湿度 (无冷凝) Relative humidity (Non-condensing)	Max.95%	Max.95%
控制器尺寸   Installation dimensions	515 x 525 x 146mm³	245 x 176 x 102mm³
壁挂式机器重量   Weight	22Kg	2.2Kg
机箱防护等级   Degrees of protection	IP44	IP44

# 技术规格

## Technical Specifications



型号名称   Type and name		JTY-GD-BS10 点型光电感烟火灾探测器 Point-type photoelectric smoke detector	JTW-ZD-BS10 点型感温火灾探测器 Point-type heat fire detector
工作电压   Working voltage		DC 18V-26V	DC 18V-26V
功耗 Power consumption	静态   Static status	≤ 0.35mA	≤ 0.35mA
	报警状态   Alarm status	≤ 1.5mA	≤ 1.5mA
	给外部指示灯提供的电流 Current provided for external indicating lamp	≤ 1.2mA	≤ 1.2mA
执行标准   Standard		EN-54/7	EN-54/5 (class: A2)
尺寸   dimensions		Φ100X38	Φ100X38
工作温度   Working temperature		-25℃~70℃	-25℃~70℃
相对湿度 (无冷凝)   Relative humidity (Non-condensing)		Max.95% RH	Max.95% RH
含底座重量   Weight including base		0.26Kg	0.26Kg
防护等级   Degrees of protection		IP 44 含防水底座 (Include water-proof base)	IP 44 含防水底座 (Include water-proof base)



型号名称   Type and name		JTG-IR-BS10 点型红外火焰探测器 Point-type infrared flame detector	JTG-ZW-5Ei 点型紫外火焰探测器 Point-type ultraviolet flame detector
工作电压   Working voltage		DC 18V-26V	DC 18V-26V
功耗 Power consumption	静态   Static status	≤ 1.7mA	回路   Loop: ≤ 0.6mA DC24V: ≤ 12mA
	报警状态   Alarm status	≤ 2.1mA	回路   Loop: ≤ 3.5mA DC24V: ≤ 22mA
执行标准   Standard		EN54-10	EN54-10
指示灯   Indicating lamp		正常工作状态: 红色闪亮 报警状态: 红色常亮 Normal working status: Flashing, red Alarm status: Normally on, red	正常工作状态: 红色闪亮 报警状态: 红色常亮 Normal working status: Flashing, red Alarm status: Normally on, red
上电延时时间   Power on delay time		15s	6s
总线接入方式   Method connected to the BS10 loop		可以直接接入回路中   Connect to the loop directly	可以直接接入回路中   Connect to the loop directly
最大探测距离   Max. detecting distance		25m	25m
视角   Angle of view		90°	90°
工作温度   Working temperature		-25℃~+70℃	-25℃~+70℃
相对湿度 (无冷凝)   Relative humidity (Non-condensing)		Max.95%	Max.95%
尺寸   Dimensions		124X118X122 mm	124X118X122 mm
重量   Weight		1.9Kg	1.9Kg
防护等级   Degrees of protection		IP 44	IP 44

# 技术规格

## Technical Specifications



型号名称   Type and name		J-SAP-BS10 手动火灾报警按钮 Manual fire alarm button	J-SAP-BS10WP 手动火灾报警按钮 Manual fire alarm button
工作电压   Working voltage		DC 18V-26V	DC 18V-26V
功耗 Power consumption	静态   Static status	≤ 0.35mA	≤ 0.35mA
	报警状态   Alarm status	≤ 1.5mA	≤ 1.5mA
执行标准   Standard		EN-54/11	EN-54/11
工作温度   Working temperature		-25℃~70℃	-25℃~70℃
相对湿度 (无冷凝)   Relative humidity (Non-condensing)		Max.95%	Max.95%
尺寸   Dimensions		88 x 88 x 24mm	88 x 88 x 24mm
重量   Weight		0.1Kg	0.3Kg
防护等级   Degrees of protection		IP 22	IP 44



型号名称   Type and name		SMC-BS10 火灾声光报警器 Audible and visual fire alarm	DI-BS10 工作间隔离单元 Cabin isolation unit	LIC-BS10 线路隔离器 Line isolator
工作电压   Working voltage		DC 18V-26V	DC 18V-26V	18 ~ 26V DC
功耗 Power consumption	静态   Static status	回路   Loop: ≤ 0.42 mA, DC24V: ≤ 6.5mA	回路   Loop: ≤ 0.38 mA DC24V: ≤ 1.2mA	< 0.78mA
	动作状态   Action status	回路   Loop: ≤ 1.5 mA, DC24V: ≤ 300 mA	回路   Loop: ≤ 1.5 mA DC24V: ≤ 10 mA	< 4.6mA
执行标准   Standard		EN54-3	---	---
声压级   Sound level		≥ 90db	---	---
工作温度   Working temperature		-25℃~+70℃	-25℃~+70℃	-25℃~+70℃
相对湿度 (无冷凝)   Relative humidity (Non-condensing)		Max.95%	Max.95%	Max.95%
尺寸   Dimensions		239X120X92 mm	239X120X68 mm	Φ 105X43 mm
重量   Weight		0.8Kg	0.7Kg	0.2Kg
防护等级   Degrees of protection		IP 44	IP 44	IP 44 含防水底座 (Include water-proof base)

# 技术规格

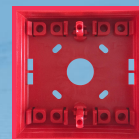
## Technical Specifications



型号名称 Type and name		IMC-BS10输入模块 Input module	RMC-BS10输入输出模块 Input / Output module	LB5现场控制盒 Local control box
工作电压   Working voltage		DC18V - 26V	DC18V - 26V	DC18 V- 26V
功耗 Power consumption	静态   Static status	回路   Loop: $\leq 0.5$ mA DC24V: $\geq 6.5$ mA; $\leq 18$ mA	$< 0.38$ mA	回路   Loop: $\leq 1$ mA DC24V: $\leq 18$ mA
	动作状态   Action status	回路   Loop: $\leq 1.5$ mA DC24V: $\geq 20$ mA; $\leq 45$ mA	$< 2.6$ mA	回路   Loop: $\leq 3$ mA DC24V: $\leq 45$ mA
输入 / 输出模式 Input / output model		<b>提供2种输入模式 (任选一种):</b> — 无源触点输入 — 电流输入 (用于带开关量探测器) <b>2 type input signal(one can be used):</b> — Dry contact input — Current input(used to connected conventional detector).	2组无源触点, 触点容量: 1A, DC30V Dry contact output 2, contact capacity 1A, DC30V	1组无源触点, 触点容量: 1A, DC30V Dry contact output 1, contact capacity 1A, DC30V
工作温度   Working temperature		$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$
相对湿度 (无冷凝) Relative humidity (Non-condensing)		Max.95%	Max.95%	Max.95%
尺寸   Dimensions		239X120X68 mm	239X120X68 mm	239X120X68 mm
重量   Weight		0.7Kg	0.7Kg	0.7Kg
防护等级   Degrees of protection		IP 44	IP 44	IP 44

# 其它配件

## Other Parts



型号名称 Type and name	DB-BS10探测器底座 Detector base	DBF-BS10探测器防水底座 Detector water-proof base	LIC-BS10探测器隔离底座 Detector isolating base	SJX手动火灾报警按钮接线盒 Junction box for manual call point	AD-BS10地址编码器 Address programme
功能描述 Function description	与BS10系列感烟感温探测器配套使用 used with BS10 series smoke or heat detector together.	与BS10系列感烟感温探测器和DB-BS10探测器底座配套使用, 满足防水等级要求 Used with BS10 series smoke or heat detector and DB-BS10 detector base, in order to enhance their IP degree.	与BS10系列感烟感温探测器配套使用, 实现隔离功能 used with BS10 series smoke or heat detector, in order to isolate the wires if they are short.	用于J-SAP-BS10手动火灾报警按钮的外露式安装 This junction box is used to fix the manual call point outside.	用于BS10系列总线器件的地址设定及功能测试 Used to set the BS10 series bus-device's address and test their functions.
工作温度 Working temperature	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	$5^{\circ}\text{C} \sim +55^{\circ}\text{C}$
尺寸   Dimensions	$\Phi 103 \times 14$ mm	140X128X41 mm	$\Phi 105 \times 28$ mm	87X87X32 mm	180X109X39 mm
重量   Weight	0.1Kg	0.2Kg	0.1Kg	0.1Kg	0.4Kg

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