

产品手册

SarTEC Product Catalog 2025

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紫外光电管

FLAME / DISCHARGE SENSOR UVTRON

火焰、放电传感器

SR1406i

★ Functional Features

Ultraviolet phototubes are sensitive only to ultraviolet radiation in the 185 nm to 300 nm wavelength range. Based on the photoelectric effect of metals and gas-discharge current multiplication, they can detect weak ultraviolet radiation while remaining insensitive to visible light. With high sensitivity and fast response, they are widely used in fire alarm systems, burner combustion monitoring, and high-voltage discharge detection.

★ Product Characteristics

- High Sensitivity - Detects weak UV emissions from flames and discharges.
- High Reliability - Narrow spectral response ensures no response to visible light or infrared radiation.
- Compact and Lightweight - Easy to install in compact equipment.
- Fast Response and Long Service Life - Enables rapid detection of flames and discharges.
- Low Current Consumption

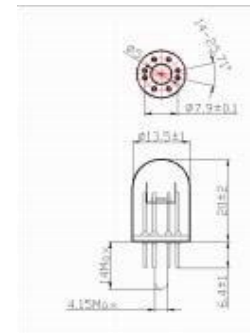
★ Application

Fire alarm systems, burner fuel and gas monitoring devices, discharge detection for transmission towers, substations and electrical distribution cabinets, UV leakage monitoring devices, automated equipment control systems, aerospace fire suppression systems, and military applications.

Features

This top-view ultraviolet phototube is designed to detect weak ultraviolet radiation. It is suitable for flame monitoring, fire alarm systems, burner fuel and gas monitoring, and discharge detection. Featuring high sensitivity and fast response, it is an ideal solution for flame and discharge sensing. A mounting bracket is available on request.

Dimensions



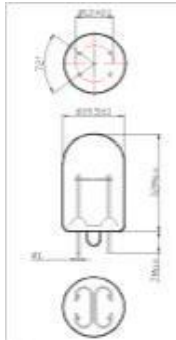
Technical Specifications

Parameters	Description	Unit
Start-up voltage	> 210	V
Sensitivity	>5000	cps
Background	<10	cps
Spectral Response Range	185 ~ 260	nm
Lifespan	20000	h
Operating Voltage	350 ±25	V
Average Output Current	0.3	mA
Ambient Operating Temperature	-55 ~ +125	°C
Application	Military Industry Alarm Monitoring	
Equivalent to	Hamamatsu, R9533	

Features

The top of this ultraviolet phototube detects faint ultraviolet radiation, making it suitable for ultraviolet monitoring applications such as boiler fuel oil and gas monitoring, fire alarms, and discharge detection. Featuring high sensitivity and rapid response characteristics, it is an ideal choice for detecting flames and discharges. This product can be equipped with a mounting bracket.

Dimensions



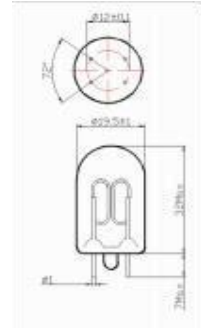
Technical Specifications

Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	≥1000	cps
Background	<10	cps
Spectral Response Range	185 ~ 300	nm
Lifespan	10000	h
Operating Voltage	310 ±25	V
Average Output Current	5	mA
Ambient Operating Temperature	-20 ~ +125	°C
Application	Boiler Combustion System Flame Detection	
Equivalent to	Siemens P57861-13V	

Features

This side-view ultraviolet phototube is designed to detect weak ultraviolet radiation. It is suitable for flame monitoring, burner combustion monitoring, fire alarm systems, and discharge detection. It offers high sensitivity, fast response, and reliable performance.

Dimensions



Technical Specifications

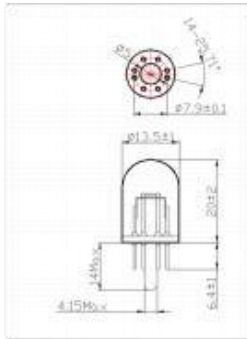
Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	≥1500	cps
Background	<10	cps
Spectral Response Range	185 ~ 300	nm
Lifespan	10000	h
Operating Voltage	310 ±25	V
Average Output Current	5	mA
Ambient Operating Temperature	-20 ~ +125	°C
Application	Boiler Combustion System Flame Detection	
Equivalent to	Siemens P57861-13V	

SR1406

Features

This top-view ultraviolet phototube detects weak ultraviolet radiation with high sensitivity and long detection range. It is suitable for fire detection systems, burner combustion monitoring devices, and industrial UV monitoring systems for flame and discharge detection. A mounting bracket is available on request.

Dimensions



Technical Specifications

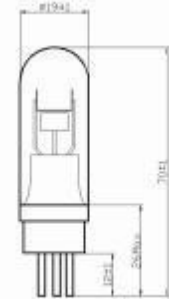
Parameters	Description	Unit
Start-up voltage	> 210	V
Sensitivity	>5000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 260	nm
Lifespan	20000	h
Operating Voltage	350 ±25	V
Average Output Current	5	mA
Ambient Operating Temperature	-55 ~ +150	°C
Application	Fire Alarm Monitoring	
Equivalent to	Hamamatsu, R9533	

SR0708

Features

This ultraviolet phototube offers high sensitivity, long detection range, and strong shock resistance. It is suitable for flame monitoring in combustion systems and industrial UV monitoring applications.

Dimensions



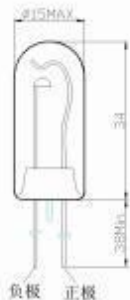
Technical Specifications

Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	>5000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 300	nm
Lifespan	15000	h
Operating Voltage	310 ±25	V
Average Output Current	> 5	mA
Ambient Operating Temperature	-45 ~ +120	°C
Application	Boiler Combustion System Flame Detection	
Equivalent to	Honeywell 7035/7027	

Features

This top-view ultraviolet phototube detects weak ultraviolet radiation with high sensitivity and fast response. It is suitable for flame detection, fire alarm systems, and fire suppression or explosion suppression systems in armored vehicles and other special applications.

Dimensions



Technical Specifications

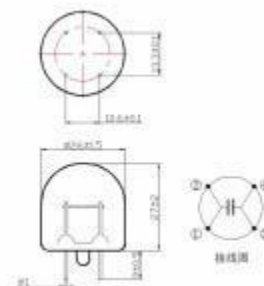
Parameters	Description	Unit
Start-up voltage	≥250	V
Sensitivity	>1000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 260	nm
Lifespan	10000	h
Operating Voltage	325 ±25	V
Average Output Current	1	mA
Ambient Operating Temperature	-45 ~ +60	°C

Application Fire Suppression and Explosion Suppression System for Armored Vehicles
Equivalent to **Hamamatsu, R259**

Features

This top-view ultraviolet phototube is designed for rapid remote flame detection. It offers high sensitivity, fast response, and a wide detection angle, making it suitable for flame detectors, fire alarm systems, military monitoring equipment, and outdoor UV monitoring applications.

Dimensions



Technical Specifications

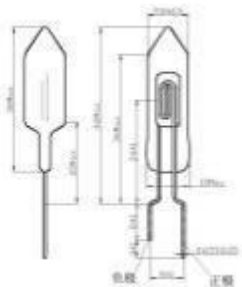
Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	>1000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 300	nm
Lifespan	10000	h
Operating Voltage	350 ±25	V
Average Output Current	1	mA
Ambient Operating Temperature	-20 ~ +125	°C

Application **Boiler Combustion System Flame Detection**

Features

This side-view ultraviolet phototube detects weak ultraviolet radiation with high sensitivity and long detection range. It is suitable for fire detection, burner combustion monitoring, and industrial flame or discharge monitoring systems.

Dimensions



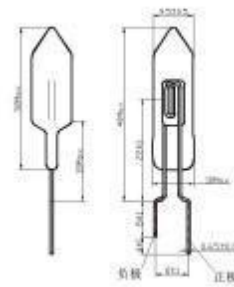
Technical Specifications

Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	≥ 4000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 260	nm
Lifespan	10000	h
Operating Voltage	325 ± 25	V
Average Output Current	1	mA
Ambient Operating Temperature	-20 ~ +60	°C
Application	Fire Alarm Monitoring	
Equivalent to	Hamamatsu, R2868	

Features

This side-view ultraviolet phototube enables rapid flame detection at a distance. Compact and highly sensitive, it is suitable for flame detectors, fire alarm systems, and industrial UV sensing applications.

Dimensions



Technical Specifications

Parameters	Description	Unit
Start-up voltage	≥ 180	V
Sensitivity	≥ 4000	cps
Background	< 10	cps
Spectral Response Range	185 ~ 260	nm
Lifespan	10000	h
Operating Voltage	400 ± 25	V
Average Output Current	1	mA
Ambient Operating Temperature	-40 ~ +60	°C
Application	Fire Alarm Monitoring	
Equivalent to	Hamamatsu, R9454	

火焰探测器

紫外线火焰探测器 UV FLAME DETECTOR

★ Product Introduction

A UV flame detector identifies the presence of a flame by sensing ultraviolet radiation emitted during combustion. The UV sensor converts the flame signal into an electrical signal, which is then processed by the controller. Once a flame is detected, the system can trigger an alarm or control output for fast and reliable flame monitoring.

★ Features

- High Reliability - Responds only to ultraviolet radiation from flames.
- High Signal-to-Noise Ratio - Capable of detecting weak flame signals.
- Fast Response - Enables rapid flame detection.

★ Application

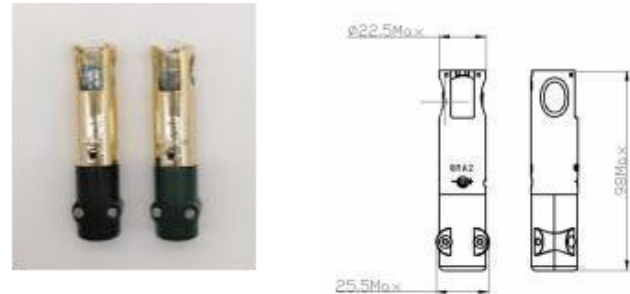
UV flame detectors are suitable for precise flame detection in industrial environments and can operate under harsh conditions such as high or low temperatures, high humidity, and vibration. They are applicable in areas such as heating furnaces and industrial boilers.

SRA2
SRA2M

Features

Flame detectors are used to monitor gas flames, yellow or blue oil flames, as well as ignition spark verification. They can be used in conjunction with combustion controllers for monitoring gas or oil flames.

Dimensions



Technical Specifications

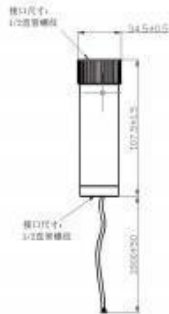
Specifications	Average Lifetime	10000h (50°C)
	Protection Rating	IP40
	Weight	60g
Environmental Conditions	Temperature Range	-20°C ~ 60°C
	Humidity	<95%
Application	Gas burner flame monitoring	

SRA4.U

Features

Flame detectors are used for monitoring gas flames, yellow or blue oil flames, and ignition spark signals. They can be used with combustion controllers to provide reliable gas or oil flame supervision.

Dimensions



Technical Specifications

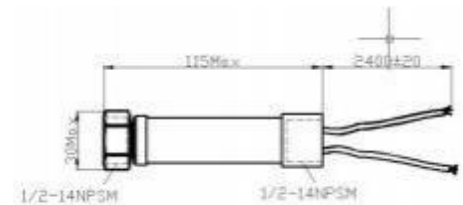
Specifications	Average Lifetime	10000h (50°C)
	Protection Rating	IP54
	Weight	180g
Environmental Conditions	Temperature Range	-20°C ~ 60°C
	Humidity	<95%
Application	Oil burners, gas burners, and dual-fuel burners	

SR79A

Features

SR79A is a compact UV flame monitor designed for use with combustion controllers and flame amplifiers. Its small size and lightweight construction make it suitable for installation in hard-to-observe locations. It is ideal for combustion systems that require reliable UV flame monitoring.

Dimensions



Technical Specifications

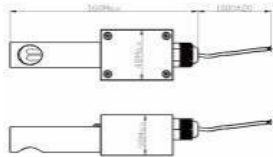
Specifications	Description	Unit
Operating Temperature	-18 ~ + 102	°C
Max Withstand Voltage	5	psi
Assembly	Coupling with 1/2-14 NPSM Internal Thread. Used for installation on a 1/2-inch observation tube.	
Wiring	Two 8-foot (2.4m) color-coded, plastic-insulated, 18AWG, NEC Class 1 lead wires rated for 105° C. The rear of the detector features a 1/2-inch internal thread with two 8-foot (2.4m), color-coded, plastic-insulated, 18AWG, NEC Class 1 detachable connectors.	
Application	Oil burners, gas burners, and dual-fuel burners	

UVS5AB(3-wire)

Features

Suitable for monitoring flame signals from gas and oil burners, as well as low-luminosity flames produced by alcohol-based fuels, methanol, biodiesel, and blended fuels. It offers high sensitivity, stable operation, good dust resistance, and high temperature tolerance. The detector responds only to ultraviolet flame signals and is not affected by natural light or visible light sources.

Dimensions



Technical Specifications

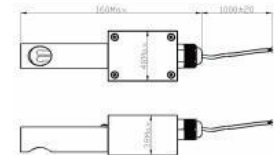
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50	HZ
Effective Detection Dis.	1	m
Wavelength Range	185 ~300	nm
Signal Type	Analog Output	
Wiring	Red: Live Wire Blue: Neutral Wire Yellow: Signal Wire	
Waterproof Rating	IP65	
Application	Gas and oil burner flame monitoring	

UVS5AB(4-wire)

Features

Suitable for monitoring flame signals from gas and oil burners, as well as low-luminosity flames produced by alcohol-based fuels, methanol, biodiesel, and blended fuels. It offers high sensitivity, stable operation, good dust resistance, and high temperature tolerance. The detector responds only to ultraviolet flame signals and is not affected by natural light or visible light sources.

Dimensions



Technical Specifications

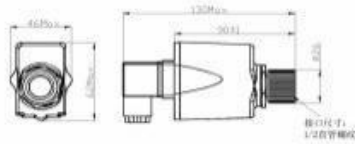
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50	HZ
Effective Detection Dis.	1	m
Wavelength Range	185 ~300	nm
Signal Type	Switch Output	
Wiring	Red: Live Wire Blue: Neutral Wire Yellow: Control Wire Green: Control Wire	
Waterproof Rating	IP65	
Application	Gas and oil burner flame monitoring	

UVS1

Features

Flame detectors can be used together with ignition controllers to detect ultraviolet radiation generated by gas or liquid combustion in real time. They provide fast response, long service life, and high sensitivity, making them suitable for flame detection and control of burners and nozzles in industrial furnaces. They are immune to interference from sunlight, lamps, and hot furnace walls.

Dimensions



Technical Specifications

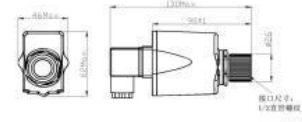
Specifications	Description	Unit
Operating Power	AC2 20	V
Frequency	50/60	HZ
Effective Detection Dis.	0.7-1.2 2m	m
Wavelength Range	185 ~260	nm
Phototube Lifetime	10000	h
Ambient Temperature	-40 ~80	°C
Waterproof Rating	IP60	
Appearance	Aluminum housing with B-12 connector socket; the front flange is equipped with a waterproof UV-transmitting lens; 1/2-inch flange mounting interface.	
Application	Hot Air Furnaces, Gas Boilers, Industrial Heating Furnaces and Kilns	

UVS1A

Features

When the detector senses ultraviolet radiation from a flame, the AC signal generated by the phototube is rectified into DC, and the amplified signal is used to control the switching output. The detector is widely used in industrial heating systems such as steel, machinery, glass, ceramics, plastics, and chemical industries. It offers high sensitivity, a wide operating temperature range, and strong resistance to sunlight, infrared radiation, moisture, and dust. It can be directly connected to PLC systems without a separate programming controller.

Dimensions



Technical Specifications

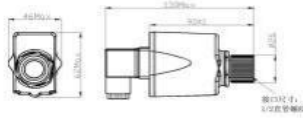
Specifications	Description	Unit
Operating Power	AC2 20	V
Frequency	50/60	HZ
Effective Detection Dis.	5	m
Wavelength Range	185 ~260	nm
Phototube Lifetime	20000	h
Signal Type	Switch Output	
Waterproof Rating	IP60	
Appearance	Aluminum housing with B-12 connector socket; front flange fitted with a UV-transmitting waterproof lens; 1/2-inch flange mounting interface.	
Application	Hot Air Furnaces, Gas Boilers, Industrial Heating Furnaces/Kilns	

UVS1B

Features

Flame detectors can be used with burner controllers and flame amplifiers to monitor flames from atmospheric burners and forced-air burners. They are widely used in steel, machinery, glass, ceramics, plastics, and chemical industries. They offer high sensitivity, easy installation, and high reliability.

Dimensions



Technical Specifications

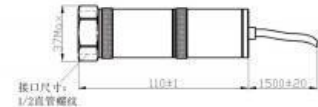
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50	HZ
Effective Detection Dis.	5	m
Wavelength Range	185 ~260	nm
Phototube Lifetime	20000	h
Signal Type	Analog Output	
Waterproof Rating	IP60	
Appearance	Aluminum Housing with B-12 connector socket; front flange fitted with a UV-transmitting waterproof lens; 1/2-inch flange mounting interface.	
Application	Hot Air Furnaces, Gas Boilers, and Industrial Heating Furnaces/Kilns	

UVS8

Features

Flame detectors can be used with ignition controllers to monitor ultraviolet radiation generated by gas or liquid combustion in real time. They offer fast response, long service life, and high sensitivity, making them suitable for various burners and nozzles. They respond only to flame UV radiation and are not affected by sunlight, artificial lighting, or furnace-wall radiation.

Dimensions



Technical Specifications

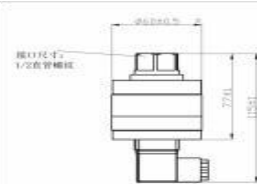
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50/60	HZ
Effective Detection Dis.	0.7 ~ 1.2	m
Wavelength Range	185 ~ 300	nm
Phototube Lifetime	10000	h
Ambient Temperature	-20 ~ 60	°C
Signal Type	Analog Output	
Waterproof Rating	IP54	
Appearance	Metal Housing - UV-transmitting waterproof lens; 1.5m silicone cable and three-core aviation connector; 1/2-inch flange mounting interface.	
Application	Hot Air Furnaces, Gas Boilers, and Industrial Heating Furnaces/Kilns	

UVS2

Features

When used with ignition controllers, UVS2 detects ultraviolet light generated by gas or liquid combustion in real time. It offers fast response, long service life, and high sensitivity, making it suitable for flame detection and control of burners and nozzles in industrial furnaces. It responds only to flame UV radiation and is unaffected by visible or infrared interference.

Dimensions



Technical Specifications

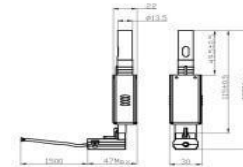
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50/60	HZ
Effective Detection Dis.	0.7~1.2	m
Wavelength Range	185 ~260	nm
Phototube Lifetime	10000	h
Ambient Temperature	-20 ~60	°C
Waterproof Rating	IP40	
Appearance	Metal Housing; 4-pin B-12 automotive connector; 1/2-inch flange mounting interface; UV-transmitting waterproof lens.	
Application	Industrial Furnace Burners	

KLC-1000

Features

KLC-1000 is suitable for detecting flame signals in low-NOx burners and light blue flame signals produced by alcohol-based fuels, methanol, biodiesel, and blended fuels. It features high sensitivity, stable operation, and good dust resistance. It detects only flame UV signals and is not affected by natural light or visible light sources.

Dimensions



Technical Specifications

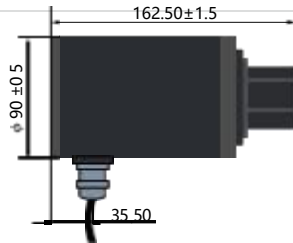
Specifications	Description	Unit
Operating Power	AC220	V
Frequency	50	HZ
Effective Detection Dis.	> 1.5	m
Wavelength Range	185 ~260	nm
Phototube Lifetime	10000	h
Signal Type	Analog Output	
Waterproof Rating	IP40	
Detection Direction	Detectable from Both Front and Side	
Application	Low-NOx Burner	

UVFLAME-01

Features

UVFLAME-01 is an integrated flame detector combining probe and signal processing in one unit. It is designed for industrial flame monitoring systems and combustion control applications. The detector uses a solar-blind UV sensor that does not respond to visible light. It features self-test capability, a built-in high-speed signal processor, and high-precision digital circuitry. Advanced hardware filtering and software algorithms help distinguish real flame signals from interference, improving detection reliability.

Dimensions



Technical Specifications

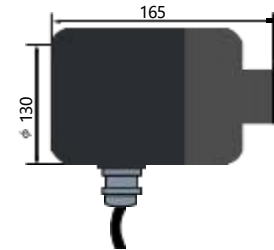
Power	24 VDC, ±10%, 1 A
Temperature	-40°C to +65°C
Humidity	0-95%
Connection	10-pin Terminal Block
Interface	1" NPT
Protection Rating	IP66
Analog Output	4-20 mA (500 Ohm)
Flame Relay	N.O. 2A@250VAC/30VDC
Fault Relay	N.O. 2A@250VAC/30VDC
Response Band	185-260 nm

UVFLAME-02

Features

UVFLAME-02 is an integrated UV flame detector for industrial flame monitoring applications. It is suitable for use in combustion control systems where reliable flame detection is required. The detector combines UV sensing, signal processing, and output functions in one compact unit.

Dimensions



Technical Specifications

Power	24VDC, ±10%, 350mA
Temperature	-40°C to +65°C
Humidity	0-95%
Connection	8-pin Terminal Block
Interface	1" NPT
Protection Rating	IP66 EXDIICT6
Analog Output	4-20 mA (500 Ohm)
Flame Relay	N.O. 2A@250VAC/30VDC
Fault Relay	N.O. 2A@250VAC/30VDC
Response Band	185-260 nm

光电倍增管

打拿极型光电倍增管

DYNODE PHOTOMULTIPLIER TUBES (PMTs)

★ Function

A photomultiplier tube (PMT) is a photoelectric device that converts extremely weak light signals into electrical signals and amplifies them through secondary electron multiplication. Depending on the light-entry structure, PMTs can be classified into end-window and side-window types.

★ Features

High Sensitivity - Detects extremely weak optical signals.

Low Noise - High-vacuum structure minimizes dark current and background noise.

Fast Response - Suitable for fast optical detection applications.

Multiple Structures Available - End-window and side-window options for different applications.

Application

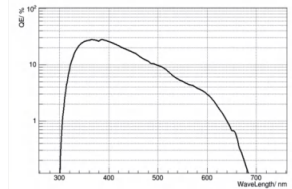
★ Astronomical photometry, spectrophotometry, scintillation counting, radiation detection, and other weak-light detection systems.

N2002 PMTs

Features

High gain, small size
linearized environmental monitoring

Technical Specifications



玻璃材料/Window material		硼硅玻璃/ Borosilicate glass					
光电阴极材料/Photocathode material		双碱/Alkali					
倍增结构/Dynode structure		线性聚焦/ Linear focused					
		N2002		Min.	Typ.	Max.	Unit.
阴极参数/Cathode parameters	阴极有效直径/Cathode effective diameter	10					mm
	光谱响应范围/Spectral response range	290-650					nm
	量子效率峰值波长/Quantum efficiency peak wavelength		380				nm
	积分灵敏度/Luminous sensitivity	30	100				μ A/mf
	蓝光灵敏度/Blue sensitivity	--	8				μ A/mf
阳极参数/Anode parameters	阳极光照灵敏度/For an anode sensitivity of	30	100				A/mf
	工作电压/Supply voltage		--	1250			V
	增益/Gain		6×10^6				--
时间参数/Time response	暗电流/Anode dark current		1	15			nA
	上升时间/Rise time		2.1				ns
工作环境温度/Operating ambient temperature				-30	+50		$^{\circ}$ C
储藏温度/Storage temperature				-50	+50		$^{\circ}$ C

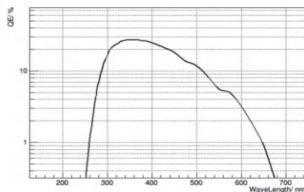
N2013 PMTs

Features

Fast response and low noise, suitable for scintillation counting and high-energy physics applications.

N2013 (Equivalent to CR10/CR105)

Dimensions



Technical Specifications

玻璃材料/Window material		硼硅玻璃/Borosilicate glass			
光电阴极材料/Photocathode material		铯铷/Bialkali			
倍增结构/Dynode structure		盒型和线性聚焦/Box and linear focused			
N2013		Min.	Typ.	Max.	Unit.
阴极有效直径/Cathode effective diameter	阴极有效直径/Cathode effective diameter	25			mm
	光谱响应范围/Spectral response range		290-650		nm
	量子效率峰值波长/Quantum efficiency peak wavelength		380		nm
	积分灵敏度/Luminous sensitivity		80		$\mu\text{A/m}$
	蓝光灵敏度/Blue sensitivity	9	11		$\mu\text{A/mf}$
阳极蓝光灵敏度/Anode blue sensitivity	阳极蓝光灵敏度/Anode blue sensitivity		30		A/mf
	工作电压/Supply voltage			1150	V
	增益/Gain		7×10^5		—
暗计数/Dark count rate	暗计数/Dark count rate	N2013-1		140	Hz
		N2013-2		300	Hz
		N2013-3		1000	Hz
		暗电流/Anode dark current	2	10	nA
上升时间/Rise time	上升时间/Rise time		1.9	ns	
			3	ns	
		渡越时间离散/TTS			ns
工作环境温度/Operating ambient temperature		-30~+50		$^{\circ}\text{C}$	
储藏温度/Storage temperature		-50~+50		$^{\circ}\text{C}$	

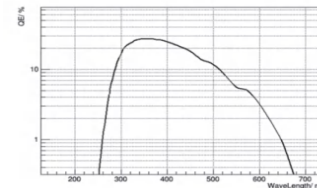
N2014 PMTs

Features

Fast response and compact structure, suitable for medical measurement and radiation detection.

N2014 (Equivalent to CR332/R1924)

Dimensions



Technical Specifications

玻璃材料/Window material		硼硅玻璃/Borosilicate glass				
光电阴极材料/Photocathode material		铯铷/Bialkali				
倍增结构/Dynode structure		环型和线性聚焦/Circular and linear focused				
N2014		Min.	Typ.	Max.	Unit.	
阴极有效直径/Cathode effective diameter	阴极有效直径/Cathode effective diameter	22			mm	
	光谱响应范围/Spectral response range		290-650		nm	
	量子效率峰值波长/Quantum efficiency peak wavelength		380		nm	
	积分灵敏度/Luminous sensitivity		60		$\mu\text{A/m}$	
	蓝光灵敏度/Blue sensitivity	8	9		$\mu\text{A/mf}$	
阳极蓝光灵敏度/Anode blue sensitivity	阳极蓝光灵敏度/Anode blue sensitivity		30		A/mf	
	工作电压/Supply voltage			1150	V	
	增益/Gain		7×10^5		—	
暗电流/Anode dark current	暗电流/Anode dark current	N2014-1	3	5	nA	
		N2014-2	3	5	nA	
		N2014-3		20		Hz
		暗计数/Dark count rate	N2014-1		100	Hz
上升时间/Rise time	上升时间/Rise time	N2014-2		500	Hz	
			1.2		ns	
	渡越时间离散/TTS		1.5		ns	
工作环境温度/Operating ambient temperature		-30~+50			$^{\circ}\text{C}$	
储藏温度/Storage temperature		-50~+50			$^{\circ}\text{C}$	

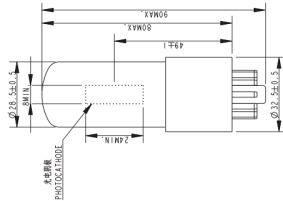
N1012 PMTs

Features

Wide spectral response and high gain. Ideal for environmental monitoring, semiconductor inspection, and biofluorescence detection.

N1012 (Equivalent to R928/CR131/CR114)

Dimensions



Technical Specifications

玻璃材料/Window material		石英玻璃/Quartz glass										
光电阴极材料/Photocathode material		多碱/Multi-alkali										
阴极面积/Proportion of cathode		8 x 24 mm ²										
倍增结构/Dynode structure		环形/Circular										
型号/Model		N1012-1			N1012-2			N1012-3			单位/Unit	
阴极参数 Cathode parameters	光谱响应范围/Spectral response range	165-900										nm
	阳极到阴极电压/Supply voltage	1250										V
	产品性能/Product performance	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
阳极参数 Anode parameters	阴极光灵敏度/Photocathode luminous sensitivity	140	250		140	250		80	150		μA/m	
	阳极光灵敏度/Anode luminous sensitivity	1400	2500		1500	2000		300	500		A/m	
	阳极暗电流 (30分钟后) / Anode dark current (30min later)	3	50		3	50		3	50		nA	
	增益/Gain	1 x 10 ⁷			8 x 10 ⁶			3.3 x 10 ⁶			—	
时间参数 Time response	上升时间/Rise time	2.2										ns
	渡越时间离散/TTS	1.2										ns
	工作环境温度/Operating ambient temperature	-30~+50										℃
储藏温度/Storage temperature		-50~+50										℃

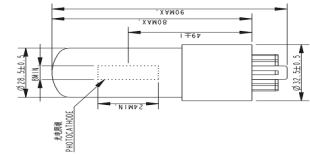
N1013 PMTs

Features

Wide spectral response, high gain, and high cathode sensitivity. Suitable for environmental monitoring, semiconductor inspection, biofluorescence detection, and in vitro diagnostics.

N1013 (Equivalent to R1527/CR316/R212)

Dimensions



Technical Specifications

光电阴极/Photocathode		双碱/Alkali							
阴极面积/Proportion of cathode		8 x 24 mm ²							
倍增结构/Dynode structure		环形/Circular							
工作环境温度/Operating ambient temperature		-30℃~+50℃							
储藏温度/Storage temperature		-50℃~+50℃							
型号	玻璃材料/Window material	光谱范围/Spectral response (nm)	阴极灵敏度/Photocathode luminous sensitivity (μA/m)		增益/Gain	阳极光灵敏度/Anode luminous sensitivity (A/m)		暗电流/Anode current (nA)	
			Min.	Typ.	Typ.	Min.	Typ.	Typ.	Max.
N1013-1	石英玻璃/Quartz glass	160-650	40	60	6.7 x 10 ⁶	200	400	0.5	2
N1013-2A	石英玻璃/Quartz glass	160-650	40	60	2 x 10 ⁷	1000	1500	2	10
N1013-2B	硼硅玻璃/Borosilicate glass	200-650	40	60	2 x 10 ⁷	1000	1500	2	10
N1013-3A	石英玻璃/Quartz glass	160-650	25	40	7.5 x 10 ⁶	200	400	2	10
N1013-3B	硼硅玻璃/Borosilicate glass	200-650	25	40	7.5 x 10 ⁶	200	400	2	10
N1013-4	石英玻璃/Quartz glass	160-650	25	40	1 x 10 ⁷	200	400	10	50

InGaAs光电二极管

PbS & PbSe

★ Function

InGaAs photodiodes are designed for near-infrared light detection. They offer high speed, high sensitivity, low noise, and a spectral response range from 0.5 um to 2.6 um.

★ Application

Optical switches
Medical instruments and equipment
High-speed optical communication
Optical LAN
Ethernet / Fibre Channel
Optical power meters (OPM)
LED / LD burn-in diagnostics

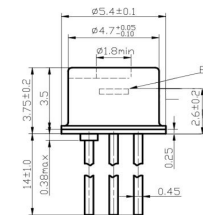
SR-B10-8026-T46W

(Equivalent to G12183-010K)

Features

Top-view package
Supports pulse operation
Low profile
Cost-effective
Active area: Ø1000 um

Technical Specifications



Parameter	Symbol	Rating	Unit	Notice
Reverse Voltage	VR	30	v	
Power Dissipation	Pd	150	mW	
Lead Soldering Temperature	Tsol	260	°C	4mm from mold body less than 5 seconds
Operating Temperature	Topr	-25 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	°C	

Electrical & Optical Characteristics (Ta = 25° C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX
Breakdown Voltage	VR	IR=100uA	3	--	--
Sensitivity Range	λ	VR=0V	800	--	2600
Dark Current	ID	VR=1V	--	--	200
Capacitance	C	VR=0V	--	970	--
Capacitance	C	VR=1V	--	275	--
Responsivity *1	R	λ = 1880nm	--	1.08	--
Shunt Resistance	RS	VR=10mV	--	3.35	--
Quantum Efficiency *1	QE	λ = 1860nm	--	71	--
Light Current @ λ = 1300nm	IL	If=10mA	--	29	--
Light Current @ λ = 1300nm	IL	If=20mA	--	64	--

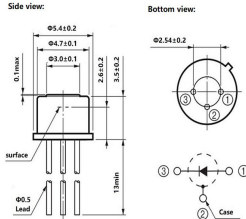
SR-B5-8017-T46W

(Equivalent to G12181-005K)

Features

Top-view package
 Supports pulse operation
 Low profile
 Active area $\varnothing 1000 \mu\text{m}$
 Cost-effective

Dimensions



Technical Specifications

■ Electronic Optical Characteristics : (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Bandwidth	$\lambda 0.5$	---	680	---	nm	V R =0 V
Wavelength of Peak Sensitivity	λp	---	1600	---	V R =0 V	V R =0 V
Sensitivity range at 10%	λ_{min} , λ_{max}	800		1700	nm	V R =0 V
Total Capacitance	Ct	---	13.5	18	pF	Ee=0mW/cm ² f=1MHZ VR=5V
Rise/Fall Time	t _r /t _f	---	12/15	---	nS	RL=100 VR=10V
Breakdown voltage	V _R	20	35		V	I r =10 μA
Dark current	I _d		1	10	nA	V _R =5 V@25 °C
Shunt resistance	R _{SH}	1.5	3.5		GΩ	V R =10 mV
Noise equivalent power	NEP		8.5×10 ⁻¹⁴		w/√HZ	λ = 1500 nm
Specific detectivity	D		11×10 ¹²		w/√HZ*w ⁻¹	λ = 1300 nm
Photocurrent at = 1300 nm	I _{ph}		2.3		μA	V R =0 V E e = 1 mW/cm ²

SARTEC
 LIGHT INNOVATION

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