

使用说明书

1. 仪器简介

VM10、VM30、VM50、VM70 LED 紫外线探伤灯是我公司针对荧光磁粉探伤、荧光渗透探伤等行业研发的即开即用型手电式冷光源紫外线灯。全铝合金结构，具有低功耗，高功效等特点。产品符合承压设备无损检测标准(NB/T 47013-2015)。

2. 产品说明

2.1 特点及性能

- 本产品采用日本 NICHIA 公司大功率 365nm 紫外线波段 LED 灯珠。没有 UV-B 和 UV-C 成分。
- 灯珠使用时限达 20000 小时。
- 大功率输出，启动速度快，开机到峰值照度。
- 低功耗，高功率。
- 冷光源低温运行，长期稳定输出。
- 透紫外线黑色玻璃，滤除可见光。
- 航空铝合金外壳，表面阳极氧化。
- 增强散热设计，可连续长时间使用。
- 配置专属充电器。
- 抵御磁场干扰，可在强磁场中使用。

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2.3 主要用途

- 荧光渗透检测 • 荧光磁粉探伤 • 荧光泄漏检测

2.4 其他用途

- 油污、污渍检测 • 特种气体、油气管道的检查
- 特定物质的荧光反射检测 • 刑侦以及法医调查
- 纸质币鉴定、宝石鉴赏
- 农业、食品、医行等其他相关行业

3. 注意事项

- 严禁使用非本产品配套的充电器。
- 避免儿童接触、使用。
- 请勿照射眼睛或皮肤。
- 请勿靠近或投入火中。
- 请在低温、干燥、通风良好的地方存放。
- 长时间放置在潮湿环境中会影响紫外线灯的使用时限。
- 建议每三个月进行充放电操作，延长电池使用时限。
- 充电环境为：温度 18-30℃，湿度 25-62%

声明：擅自拆开产品以及人为造成损坏均不在保修范围内。

4. 相关资料

承压设备无损检测标准(NB/T 47013-2015)对黑光灯/紫外线灯的要求为：

- 在工件表面的辐照强度大于或等于 1000 $\mu\text{W}/\text{cm}^2$
- 波长为 315nm ~ 400nm，峰值波长为 365nm
- 光源应符合 GB/T5097 规定

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2.2 技术参数

参数 \ 型号	VM10	VM30	VM50	VM70	
38cm 处最大紫外线强度 $\mu\text{W}/\text{cm}^2$	≥ 10000	≥ 13000	低 ≥ 8000 高 ≥ 20000	≥ 20000	
38cm 处照射范围 $\geq 1200 \mu\text{W}/\text{cm}^2$	$\Phi 63\text{mm}$	$\Phi 55\text{mm}$	$\Phi 55\text{mm}$	$\Phi 105\text{mm}$	
可见光照度 \approx	2.91 lux	3.4 lux	3.14 lux	5.8 lux	
黑色滤光片	●	●	●	●	
光源	365nm UV-A LED				
灯珠数量	1	1	1	3	
ICR18650 锂电池	●			●	
ICR26650 锂电池		●	●		
电池容量 mAh	3.7V ≥ 2600	3.7V ≥ 3800	3.7V ≥ 3800	3.7V ≥ 2600	
电池数量	1 个	1 个	2 个	4 个	
连续工作时间	4 小时	5 小时	低亮 18 小时	5 小时	
			高亮 8 小时		
充电时间	5 小时	6 小时	7 小时	5 小时	
外形尺寸	灯头直径	28mm	40mm	62mm	60mm
	透光窗直径	22mm	34mm	55mm	50mm
	长度	128mm	144mm	240mm	143mm
重量 (含电池)	140g	240g	520g	610g	

注：产品参数仅供参考，最终以实物为主。

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装箱单

主机 充电器 充电电池
 仪器箱 使用说明书 合格证
 紫外线防护眼镜 (VM10 除外)

公司信息

沈阳宇时先锋检测仪器有限公司
 地址：沈阳市沈北新区沈北路 9 号
 座机电话：024-88321301
 客服电话：4006-024-800 13897905533
 网址：www.yushindt.cn

保修卡

仪器型号：_____ 仪器编号：_____

购货日期：_____ 客户电话：_____

客户名称：_____

注：产品在保修期内因正常使用出现故障，
 可凭保修卡及发票享受规定的免费保修。

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1· Instrument Introduction

VM10, VM30, VM50 and VM70 portable cold light source LED ultraviolet torches are developed by our company for fluorescent magnetic particle and fluorescent penetration inspection and other industrial areas. Feature all aluminum alloy construction, super high strength and very low power consumption. The products conform the National Pressure-bearing Equipment NDT Standard (NB/T 47013-2015).

2·Range of Application

2.1 Main Application

- ◆ Yushi VM Series adopts high-power 365nm Ultraviolet band LED Lamp Beads produced by Japanese NICHIA company, 100% free from UV-B and UV-C element, spectrum is pure.
- ◆ The lifetime of Lamp Beads reaches up to 20000 hours, efficient, energy conservation and environmental protection.
- ◆ High power output, quick start, reaches the maximum illuminance as soon as switched on.
- ◆ Ultra-low power consumption, high efficiency.
- ◆ Cold light source makes cold operation, outputs the illuminance lasted and steadily.
- ◆ Optical filter is black vitaglass.
- ◆ High strength aviation aluminum alloy shell with anodize surface.
- ◆ Enhance thermal design, can be used continuous for long time.
- ◆ Configure dedicated high speed charger for each lamp.
- ◆ Anti-magnetic field interference function makes it possible to work in the strong magnetic field.

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2.3 Main Application

- ◆ Fluorescence Penetrant Testing
- ◆ Fluorescence Magnetic Particle Flaw Detection
- ◆ Fluorescence Leak Detection

2.4 Other Application

- ◆ Oil Stain, Blot Testing
- ◆ Special Gas, Oil and Gas Pipeline Testing
- ◆ Fluorescence Reflection Detection for Special Materials
- ◆ Criminal Investigation and Legal Medical Expert Survey
- ◆ Paper Money Authentication, Jewel Appreciation
- ◆ Agriculture, Foodstuff, Medical Treatment and other relevant industries.

3. Matters need Attention

- ◆ Do not use the charger which is not matched with this product.
- ◆ Keep away from child.
- ◆ Do not irradiate eyes and skin.
- ◆ Keep away from fire.
- ◆ Please store in low temperature, dry and ventilation.
- ◆ If long time no use, please take out the battery. It is suggested to charge and discharge every 3 months.
- ◆ Optimum charging environment: 18-30℃, humidity 25-62%.

Statement: To dismantle without authorization or man-made damage are outside the scope of warranty.

4. Related Data

The National Pressure-bearing Equipment NDT Standard (NB/T 47013-2015) requires Black Light Lamp / Ultraviolet Lamp as follows:

- ◆ Exposure intensity on the workpiece surface must be greater or equal to 1000 uW/cm².
- ◆ The wavelength should be 315nm~400nm, and the peak value wavelength should be 365nm.
- ◆ Light source should meet the specification of GB/T5097.

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2.2 Technical Parameters

Parameters \ Mode	VM10	VM30	VM50	VM70	
Maximum Intensity of Ultraviolet Ray at 38cm Distance	10000 uW/cm ²	13000 uW/cm ²	L:8000 uW/cm ² H:20000 uW/cm ²	20000 uW/cm ²	
Irradiated Area at 38cm Distance (≥1200 uW/cm ²)	∅ 63mm	∅ 55mm	∅ 55mm	∅ 105mm	
Visible Light Illumination	2.91 lux	3.4 lux	3.14 lux	5.8 lux	
Black Light Filter	●	●	●	●	
Light Source	365nm UV-A LED				
Number of Beads	1	1	1	3	
ICR18650	●			●	
ICR26650		●	●		
Battery Capacity	3.7V ≥2600mAh	3.7V ≥4800mAh	3.7V ≥4800mAh	3.7V ≥2600mAh	
Number of Battery	1	1	2	4	
Charging Time	5H	6H	7H	5H	
Working Hours (Continuous)	4H	5H	L:18H	5H	
			H:8H		
Outline Dimension	Lamp Head Diameter	28 mm	40 mm	62 mm	60 mm
	Diameter of Light Inlet Window	22mm	34mm	55 mm	50 mm
	Length	128 mm	144 mm	240 mm	143 mm
Weight (including Battery)	140g	240g	520g	610g	

Note:Product parameters are for reference only

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Packing List

- ◆ Main Unit
- ◆ Charger
- ◆ Rechargeable Battery
- ◆ Suit Case
- ◆ Manual
- ◆ Certificate
- ◆ UV Protective Glasses (Except VM10)

Company Information

Yushi Instruments

Address: No. 9 Shenbei Road, Shenbei New District, Shenyang City,

Liaoning Province, China

Tel: +86 024-88321301

Website: www.yushindt.com

Worldwide Guaranty Card:

Model: _____ S/N Code: _____

Date of Purchase: _____ Customer Call: _____

Customer Company: _____

Note: Products in the warranty period due to normal use of

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