



qwifm

EN33

背景抑制式光电传感器

Background suppression
photoelectric sensor

ENO33

激光传感器

Laser sensor

EN33-D1Y100NAM2Z
BN:12-24VDC
BK:OUTPUT 100mA
BU:0V
Sn:100cm

激光传感器，小物体稳定检测
Photoelectric Sensing Miniature object, Stable detection

高新技术，专利模块，抗强光干扰
Anti-glare interference ,high-tech patented product

智能反射，不受目标角度影响
Intelligent reflective, not affected by the angle of detecting object


Brief Introduction

企业简介

上海本焯电气科技有限公司其前身是一家集设计开发、生产、销售于一体的专业的传感器的制造商。我公司拥有独立的研发部门，专业的生产团队，并吸取众家之长，所设计的产品在品质、外观均可与任何厂家媲美。

我们产品涵盖电感接近传感器、电容式接近传感器、霍尔传感器、光电传感器、固态继电器、固态调压器及开关电源。我们一直致力于通过不断研发和质量管理，以高品质和多种类的产品及优质的服务来满足用户的需要。

公司以完善的组织架构和技术实力，保证了生产效率，以高度的灵活性为客户提供优质的服务，大部分产品通过欧共体 CE 认证，并始终贯彻执行“今天的质量，明天的市场”的质量方针，使企业得到了飞速的发展。

 在中国已被业界公认为传感器行业的领导品牌，并日益成为全球工控领域的知名品牌。

Shanghai Nature Beyond Electric Technology Co.,LTD is a sensor manufacturer, specialized in research and development, production and marketing. We have independent department and technical office for research and development. We also manage to accumulate other companies' strong points so that the products could compare with others about both the quality and the outward appearances.

Our products include inductive proximity sensors, capacitive proximity sensors, Hall sensors, photoelectric sensors, solid state relays, solid state voltage regulators and switching power supplies. We are committed to meeting the needs of our customers with high quality and diverse products and quality services through continuous research and development and quality management.

With perfect organizational structure and technical strength, the company guarantees production efficiency and provides customers with high-quality service with high flexibility. Most of the products have passed the CE certification of the European Community and have always implemented the "Today's Quality, Tomorrow's Market". The quality policy has enabled the company to develop rapidly.

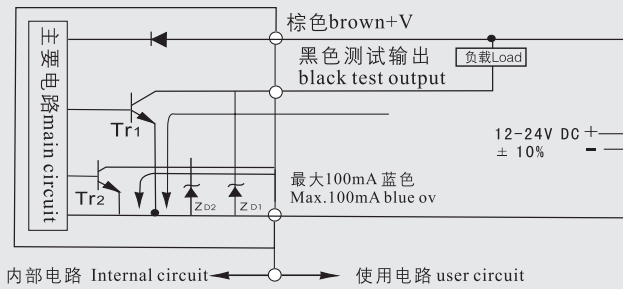
QWIFM, has been the leading brand in sensor market and gained its global reputation among industrial areas.

产品说明图

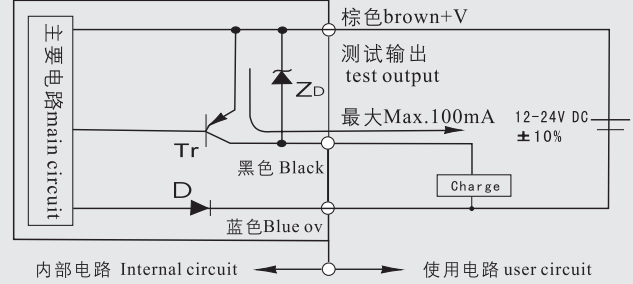
Explanation of the product

产品接线图 Product wiring diagram

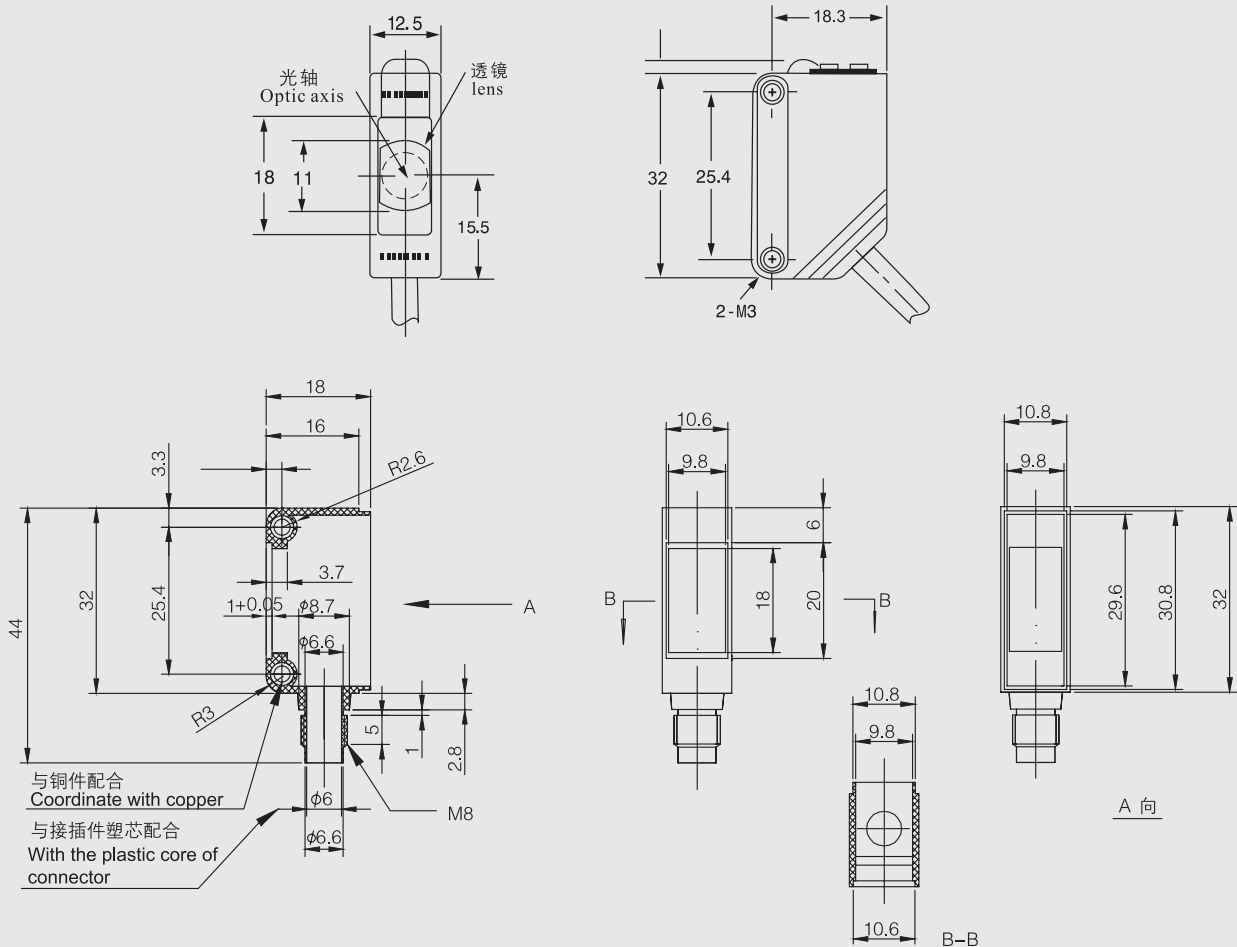
NPN输出类型 output type



PNP输出类型 output type



产品尺寸图 Product size diagram



型号及其含义

Selection Guide

EN 33 - D1 Y 30 N A M2 Z

基本形式	EN: 第三代远距离光电传感器 ENO: 激光传感器
外形编号	33: 塑料外壳尺寸 32×21×12 50: 塑料外壳尺寸 50×50×18
工作电压	D1: 12-24VDC D0: 特殊电压 A2: 90-250VAC U: 24-240VDC/36-240VAC
检测方式	T: 漫反射型 S: 镜面反射型 Y: 背景抑制型 E: 对射型 (接收器) E1: 对射型 (发射器)
检测距离	100: 100cm 1000: 1000cm
输出形式	N: NPN 负逻辑输出 P: PNP 正逻辑输出 L: 交流二线输出 J: 继电器触点输出
输出状态	A: 常开 B: 常闭 C: 一开一闭
连接器	M1: M12X1 直公头 M2: M8X1 直公头
数字	数字: 代表引线长度
Z	Z: 直插引线
W	W: 弯插引线

EN 33 - D1 Y 30 N A M2 Z

基本类型	EN: Third Generation Long distance photo sensors ENO: Laser sensor
Outline code	33: Plastic housing size 32X21X12 50: Plastic housing size 50X50X18
Working voltage	D1: 12-24VDC D0:special voltage A2: 90-250VAC U:24-240VDC/36-240VAC
Detection method	T: Diffused type S: Retroreflective type Y: Background suppression E: Through-beam type(Receiver) E1:Through-beam type(launcher)
Detect distance	100:100cm 1000:1000cm
Output form	N: NPN L: AC two-wire output P: PNP J: Relay contactor output
Output state	A: Normally open B: Normally closed C:Normally open/ normally closed
Connector	M1:M12x1 straight plug M2: M8x1 straight plug
Number	Number: Represent cables length
Z	Z: Straight -plug cable
W	W:Bending-plug cable

背景抑制型引线式光电传感器

EN33 Background suppression photoelectric sensor with Cable



- 能在阳光下使用的光电传感器
- 旋钮式操作调试简单方便
- 全球范围 (EN 规格产品) (备有 NPN,PNP) 适用
- A photoelectric sensor that can be used in the sun
- Knob type operation, easy and convenient
- Optimized photoelectric sensor for logistics industry
- Suitable for world-wide (EN product)(NPC,PNP available)
- Adopt red LED, clear visible(wave length 660nm)
- 最适用于物流包装的光电传感器
- 采用红色光 (波长 660nm) 清晰可见

技术参数 / Technical parameters

产品型号	背景抑制型		
型号	负逻辑	常开	EN33-D1Y30NA
		常闭	EN33-D1Y30NB
	正逻辑	常开	EN33-D1Y30PA
		常闭	EN33-D1Y30PB
电源电压	12-24VDC±10% 的波动		
消耗电流	< 20mA		
检测距离	2-30cm		
标准检测物	无光泽白板纸 20cm×20cm		
光源	红色光 (波长 660nm)		
响应时间	移动和复位小于 0.5ms		
受光面照度	白炽灯 : 小于 5000Lux 阳光 : 无限		
使用温度范围	-10-50°C没有结冰和结露		
使用湿度范围	30-85%RH		
光斑直径	Φ10mm(300mm 处)		
输出电流	100mA		
材质	外壳 : 增强 ABS 镜片 : 聚碳		
产品标准	GB/T14048.10-2016		
保护等级	IP65(IEC)		
灵敏度调节	电位器 (单圈)		

Product model	Background suppression		
Model	NPN	NO	EN33-D1Y30NA
		NC	EN33-D1Y30NB
	PNP	NO	EN33-D1Y30PA
		NC	EN33-D1Y30PB
Power supply	12-24VDC±10% fluctuation		
Consumption current	< 20mA		
Detect distance	2-30cm		
Standard sensing object	Matte Whiteboard Paper 20cm×20cm		
Light Source	Red LED(Wave length 660nm)		
Response time	Move and reset less than 0.5ms		
Ambient illumination	Lamp: Less than 5000Lux Sunlight: Infinite		
Ambient Temperature	-25°C ~+55°C without icing and condensation		
Ambient Humidity	30-85%RH		
Spot diameter	Φ10mm(300mm)		
Current output	100mA		
Material	Housing: reinforced ABS lens: polycarbon		
Product Standards	GB/T14048.10-2016		
Protection level	IP65(IEC)		
Sensitivity adjust	Potentiometer		

背景抑制型接插件式光电传感器

EN33 Background suppression photoelectric sensor with Connector



- 能在阳光下使用的光电传感器
- 旋钮式操作调试简单方便
- 全球范围 (EN 规格产品) (备有 NPN,PNP) 适用
- A photoelectric sensor that can be used in the sun
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- Optimized photoelectric sensor for logistics industry
- Suitable for world-wide (EN product)(NPC,PNP available)
- Adopt red LED, clear visible(wave length 660nm)
- 最适用于物流包装的光电传感器
- 采用红色光 (波长 660nm) 清晰可见

技术参数 / Technical parameters

产品型号	背景抑制型		
型号	负逻辑	常开	EN33-D1Y30NAM2Z
		常闭	EN33-D1Y30NBM2Z
	正逻辑	常开	EN33-D1Y30PAM2Z
		常闭	EN33-D1Y30PBM2Z
电源电压	12-24VDC±10% 的波动		
消耗电流	< 20mA		
检测距离	2-30cm		
标准检测物	无光泽白板纸 20cm×20cm		
光源	红色光 (波长 660nm)		
响应时间	移动和复位小于 0.5ms		
受光面照度	白炽灯 : 小于 5000Lux 阳光 : 无限		
使用温度范围	-25°C ~ +55°C 没有结冰和结露		
使用湿度范围	30-85%RH		
光斑直径	Φ10mm(300mm 处)		
输出电流	100mA		
材质	外壳 : 增强 ABS 镜片 : 聚碳		
产品标准	GB/T14048.10-2016		
保护等级	IP65(IEC)		
灵敏度调节	电位器 (单圈)		

Product model	Background suppression		
Model	NPN	NO	EN33-D1Y30NAZ
		NC	EN33-D1Y30NBZ
	PNP	NO	EN33-D1Y30PAZ
		NC	EN33-D1Y30PBZ
Power supply	12-24VDC±10% fluctuation		
Consumption current	< 20mA		
Effective detection range	2-30cm		
Standard sensing object	Matte Whiteboard Paper 20cm×20cm		
Light Source	Red LED(Wave length 660nm)		
Response time	Move and reset less than 0.5ms		
Ambient illumination	Lamp: Less than 5000Lux Sunlight: Infinite		
Ambient Temperature	-25~+55°C without icing and condensation		
Ambient Humidity	30-85%RH		
Spot diameter	Φ10mm(300mm)		
Current output	100mA		
Material	Housing: reinforced ABS lens: polycarbon		
Product Standards	GB/T14048.10-2016		
Protection level	IP65(IEC)		
Sensitivity adjust	Potentiometer		



- 无接触远距离测量
- 最适用于物流包装的光电传感器
- 抗光、电干扰能力强
- 速度快、精度高
- 全球范围 (EN 规格产品) (备有 NPN,PNP) 适用
- No-contact long distance detecting
- Optimized photoelectric sensor for logistics industry
- Strong anti-interference capability
- High precision, high speed
- Suitable for EN product(with PNP and NPN)in the world

技术参数 / Technical parameters

产品型号		漫反射	镜面反射	对射	
型号	负逻辑	常开	ENO33-D1T70NA	ENO33-D1S300NA	ENO33-D1E1000NA
		常闭	ENO33-D1T70NB	ENO33-D1S300NB	ENO33-D1E1000NB
	正逻辑	常开	ENO33-D1T70PA	ENO33-D1S300PA	ENO33-D1E1000PA
		常闭	ENO33-D1T70PB	ENO33-D1S300PB	ENO33-D1E1000PB
电源电压		12-24VDC±10% 的波动			
消耗电流		< 20mA	< 20mA	< 20mA	
检测距离		70cm	300cm	1000cm	
最小检测物		0.3-0.5mm (80-150mm 区域)			
光源		红色激光 (波长 650nm)			
响应时间		移动和复位小于 0.5ms			
受光面照度		白炽灯: 小于 5000Lux 阳光: 无限			
使用温度范围		-25°C ~ +55°C 没有结冰和结露			
使用湿度范围		30-85%RH			
光斑		5mm(70cm 处)			
输出电流		100mA			
材质		外壳: 增强 ABS 镜片: 聚碳			
产品标准		GB/T14048.10-2016			
保护等级		IP65(IEC)			
回差		5%Max			
灵敏度调节		电位器 (单圈)			

Product model		Diffused	Retroreflective	Through-beam	
Model	NPN	NO	ENO33-D1T70NA	ENO33-D1S300NA	ENO33-D1E1000NA
		NC	ENO33-D1T70NB	ENO33-D1S300NB	ENO33-D1E1000NB
	PNP	NO	ENO33-D1T70PA	ENO33-D1S300PA	ENO33-D1E1000PA
		NC	ENO33-D1T70PB	ENO33-D1S300PB	ENO33-D1E1000PB
Power supply		12-24VDC±10% fluctuation			
Consumption current		< 20mA	< 20mA	< 20mA	
Detect distance		70cm	300cm	1000cm	
Minimum detected object		0.3-0.5mm (80-150mm Zone)			
Light Source		Red laser(Wave length 650nm)			
Response time		Move and reset less than 0.5ms			
Ambient illumination		Lamp: Less than 5000Lus sunlight: Infinite			
Ambient Temperature		-25°C ~+55°C without icing and condensation			
Ambient Humidity		30-85%RH			
Spot diameter		5mm(In 70cm)			
Current output		100mA			
Material		Housing: reinforced ABS lens: polycarbon			
Product Standards		GB/T14048.10-2016			
Protection level		IP65(IEC)			
Backlash		5% Max			
Sensitivity adjust		Potentiometer			



- 无接触远距离测量
- 最适用于物流包装的光电传感器
- 抗光、电干扰能力强
- 速度快、精度高
- 全球范围 (EN 规格产品) (备有 NPN,PNP) 适用
- No-contact long distance detecting
- Optimized photoelectric sensor for logistics industry
- Strong anti-interference capability
- High precision, high speed
- Suitable for EN product(with PNP and NPN)in the world

技术参数 / Technical parameters

产品型号		漫反射	镜面	对射	
型号	负逻辑	常开	ENO33-D1T70NAM2Z	ENO33-D1S300NAM2Z	ENO33-D1E1000NAM2Z
		常闭	ENO33-D1T70NBM2Z	ENO33-D1S300NBM2Z	ENO33-D1E1000NBM2Z
	正逻辑	常开	ENO33-D1T70PAM2Z	ENO33-D1S300PAM2Z	ENO33-D1E1000PAM2Z
		常闭	ENO33-D1T70PBM2Z	ENO33-D1S300PBM2Z	ENO33-D1E1000PBM2Z
电源电压		12-24VDC±10% 的波动			
消耗电流		< 20mA	< 20mA	< 20mA	
检测距离		70cm	300cm	1000cm	
最小检测物		0.3-0.5mm (80-150mm 区域)			
光源		红色激光 (波长 650nm)			
响应时间		移动和复位小于 0.5ms			
受光面照度		白炽灯 : 小于 5000Lux 阳光 : 无限			
使用温度范围		-25°C ~ +55°C 没有结冰和结露			
使用湿度范围		30-85%RH			
光斑		5mm(70cm 处)			
输出电流		100mA			
材质		外壳 : 增强 ABS 镜片 : 聚碳			
产品标准		GB/T14048.10-2016			
保护等级		IP65(IEC)			
回差		5%Max			

Product model		Diffused	Retroreflective	Through-beam	
Model	NPN	NO	ENO33-D1T50NAM2Z	ENO33-D1T100NAM2Z	ENO33-D1T150NAM2Z
		NC	ENO33-D1T50NBM2Z	ENO33-D1T100NBM2Z	ENO33-D1T150NBM2Z
	PNP	NO	ENO33-D1T50PAM2Z	ENO33-D1T100PAM2Z	ENO33-D1T150PAM2Z
		NC	ENO33-D1T50PBM2Z	ENO33-D1T100PBM2Z	ENO33-D1T150PBM2Z
Power supply		12-24VDC±10% fluctuation			
Consumption current		< 20mA	< 20mA	< 20mA	
Detect distance		70cm	300cm	1000cm	
Minimum detected object		0.3-0.5mm (80-150mm Zone)			
Light Source		Red laser(Wave length 650nm)			
Response time		Move and reset less than 0.5ms			
Ambient illumination		Lamp: Less than 5000Lus sunlight: Infinite			
Ambient Temperature		-25~+55°C without icing and condensation			
Ambient Humidity		30-85%RH			
Spot diameter		5mm(In 70cm)			
Current output		100mA			
Material		Housing: reinforced ABS lens: polycarbon			
Product Standards		GB/T14048.10-2016			
Protection level		IP65(IEC)			
Backlash		5%Max			