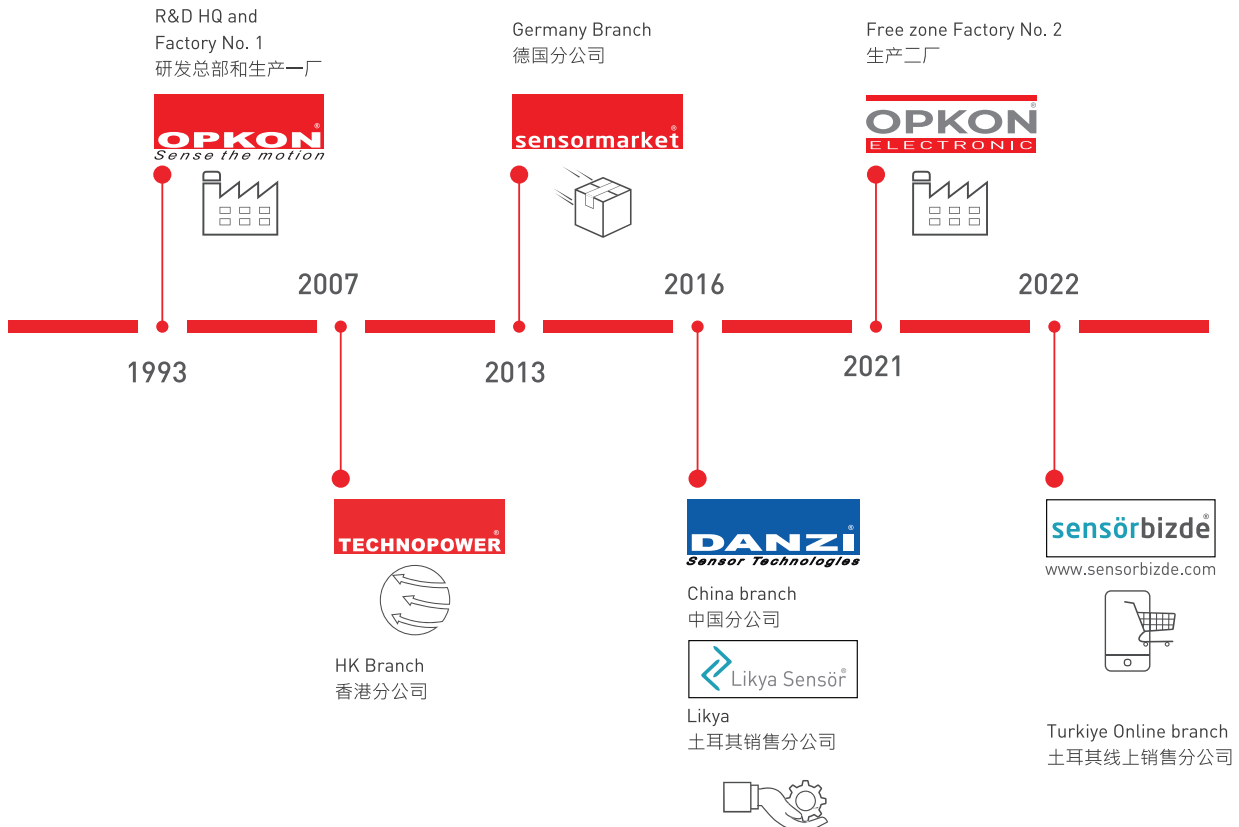


## ABOUT OPKON

OPKON Optik Elektronik A.S. was established in İstanbul in 1993 to produce high-quality position sensors for the machine manufacturing industry and the general automation sector. We offer our customers advanced technology products and solutions with our expert and experienced engineering team. OPKON's R&D and manufacturing facilities are located in İstanbul at 4000 sqm production area with 128 experienced engineers and technicians. Main products are non-contact magnetostrictive sensors, linear potentiometric transducers, rotary potentiometers, draw wire sensors, linear encoders, rotary encoders and panel type measurement & control devices. OPKON provides worldwide international sales, service and support with subsidiary offices in Germany and China as well as 88 distribution partners in more than 40 countries. Thus, OPKON can fastly deliver directly from stock. OPKON pursues its international development by designing, manufacturing, and servicing high-tech products where the quality of its expertise makes all the difference. OPKON's policy is to meet the expectations of the customers' technical needs with agile solutions and quality products through cost-efficient production with on-time deliveries. In doing so, we attach great importance to occupational health, safety and environmental protection.

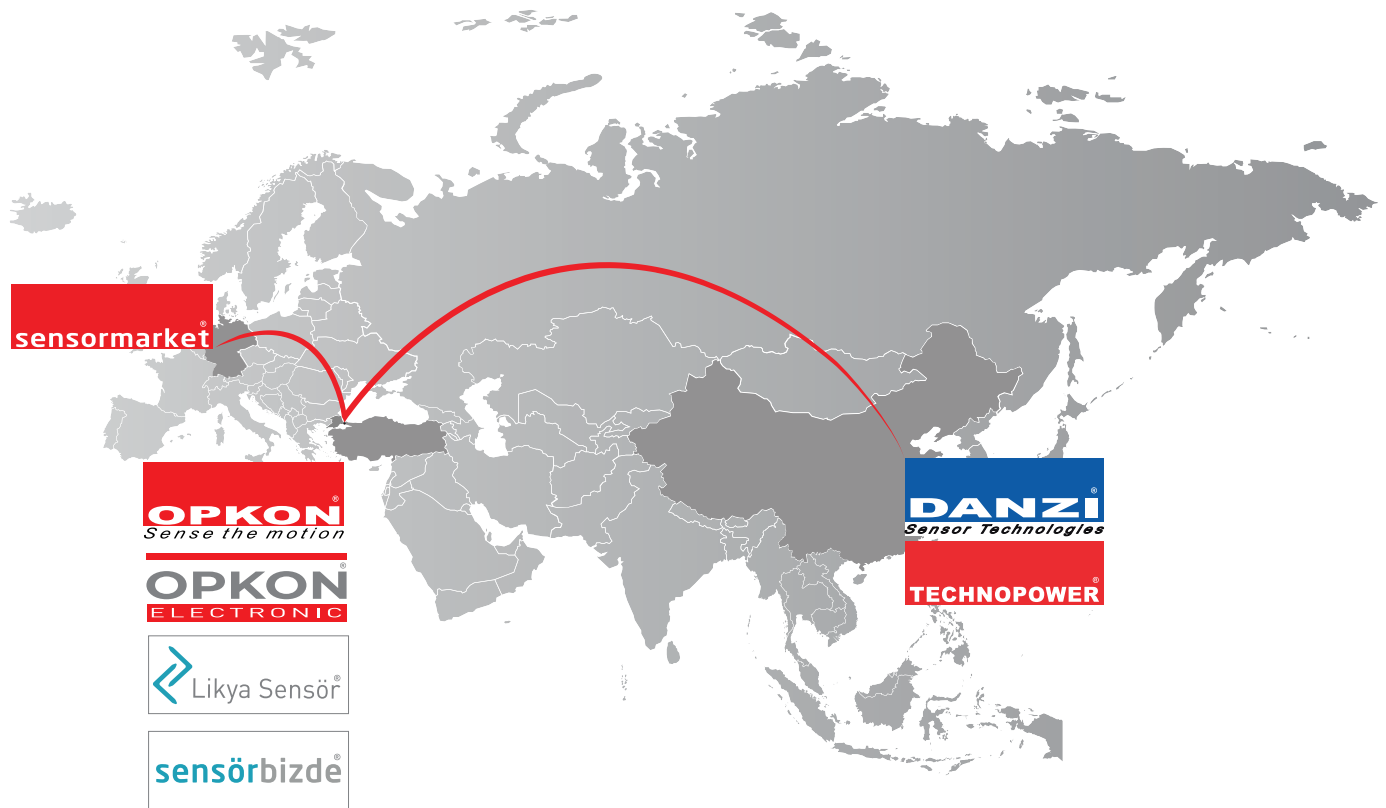
## 关于OPKON

OPKON公司，在1993年，成立于土耳其伊斯坦布尔，为机械制造商和通用自动化领域生产高品质位移传感器。我们与专业的和经验丰富的技术团队，为客户提供先进技术的产品和解决方案。OPKON的研发和制造，均位于伊斯坦布尔，占地4000平米，拥有128名经验丰富的工程师和技术人员。主要生产：非接触式磁致伸缩传感器、电阻式直线位移传感器、旋转电位计、拉线位移传感器、直线编码器、旋转编码器和相关面板式测控仪表。OPKON在全球范围内提供国际销售、服务和技术支持，并在德国和中国，以及其它45多个国家分布有88个分销合作伙伴，为客户提供便捷交货服务。OPKON通过研发制造、专业的高技术产品，以及提供差异化服务，而致力于国际化发展。OPKON的理念：以快捷方案，高性价比产品，和及时交货，来满足客户的技术需求，同时，注重职业健康安全和环境保护。



## WHY US? / 为何选择我们

- Wide Production Range / 产品范围广
- Fast Delivery from Stock / 快捷库存交货
- Custom Design Solutions / 客户定制方案
- Easy and fast communication / 便捷快速沟通
- 30 Years' Experience in R&D, Design and Production / 30多年的研发、设计和生产经验
- Worldwide Sales & Service Network / 全球销售和服务网络
- Engineering Support / 工程师技术支持
- Updated Technology and Innovative Products / 技术更新和产品创新



- 6 group companies / 集团内6家公司
- +525000 PCS production capacity in a year / 年产50多万支各类位移传感器
- 85 products categories / 85个产品品类
- Exporting 45 countries and areas / 出口到45多个国家和地区
- 88 active sales partners / 全球88个活跃合作伙伴

## Model / 型号 MPS

### Magnetic Linear Incremental Encoder / 磁线性增量式编码器(磁栅尺)

High Precision, High Performance Press Brake Scale / 高精度, 高性能折弯机尺



#### Technical Specifications / 技术参数

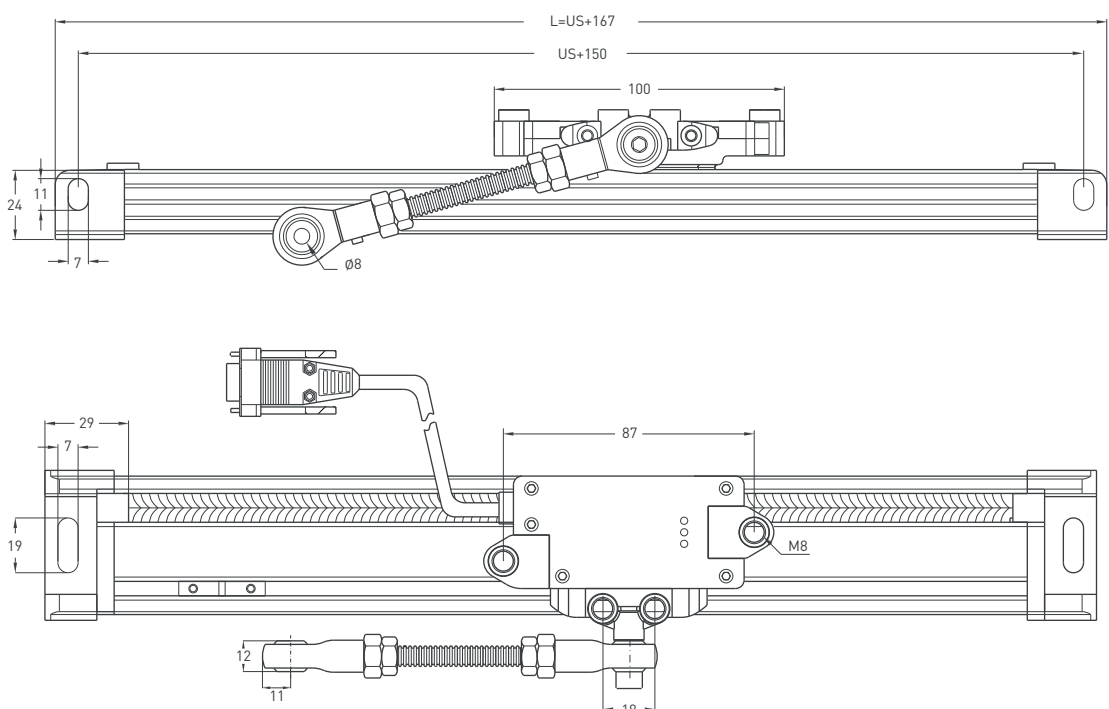
Type of measurement / 测量类型	Magnetic incremental non-contact / 磁增量无接触式
Measurement stroke / 测量行程	100 - 2000 mm
Resolution / 分辨率	Standard / 标配 : 5 $\mu\text{m}$ (4x mode / 型号), Optional / 选配 : 2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu\text{m}$ (4x mode / 型号)
Repeatability / 重复度	$\pm 5 \mu\text{m}$
Accuracy / 精度	$\pm 15 \mu\text{m}$
Output channels / 输出通道	A, B, Z / A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type / 输出类型	TTL, Linedriver, Push-Pull, High Linedriver
Power supply / 供应电压	5 VDC [Standard / 标配], 8 - 24 VDC [Optional / 选配]
Power consumption / 功率消耗 (without load/空载)	<40 mA (24 VDC)
Electrical connections / 电气连接	DB9 connector with 1 m cable or M16x8 pin connector / DB9接头带1米线或8芯M16连接头
Displacement speed / 位移速度	< 3 m/s / 米/秒
Case material / 主体材料	Anodized aluminium / 阳极氧化铝
Protection level / 防护等级	IP 65
Operating temperature / 工作温度	-20°C ... +80°C
Storage temperature / 仓储温度	-30°C ... +90°C

#### Mechanical Specifications / 机械参数

MS / 机械行程

US / 有效行程 / 有效行程

L / 长度 / 长=有效行程+167



## Model / 型号 MLC

### Magnetic Linear Incremental Encoder / 磁线性增量式编码器

Special for Roll-Bending Machinery / 尤其适合卷板机



#### Technical Specifications / 技术参数

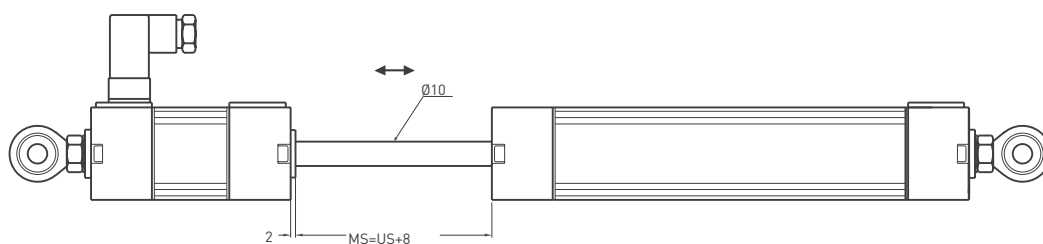
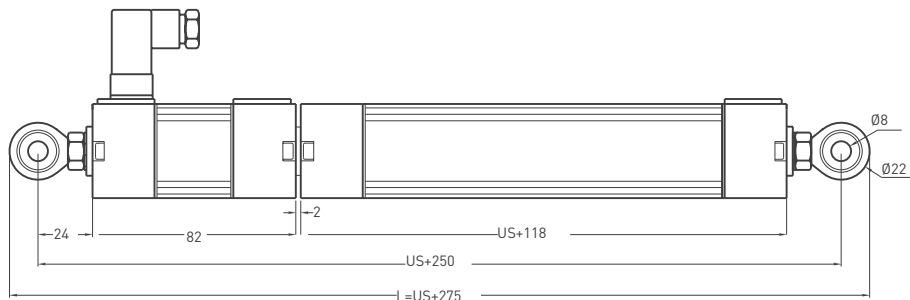
Type of measurement / 测量类型	Magnetic incremental non-contact / 磁增量无接触式
Measurement stroke / 测量行程	50 - 800 mm
Resolution / 分辨率	2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu\text{m}$ (4x mode / 型号)
Accuracy / 精度	$\pm 40 \mu\text{m}$
Output channels / 输出通道	A, B, Z / A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type / 输出类型	TTL, Linedriver, Push-Pull, High Linedriver
Power supply / 供应电压	8 -24 VDC or / 或 5 VDC
Power consumption / 功耗 (without load/空载)	<40 mA (24 VDC)
Electrical connections / 电气连接	4 pin connector / 4芯接头 (standard / 标配), 1 m cable / 1米导线 (optional / 选配)
Displacement speed / 最大速度	<3 m/s / 米/秒
Case material / 主体材料	Anodized aluminium / 阳极氧化铝
Mechanical fixing / 机械固定	Ball joints on the both sides / 两边带鱼眼节
Protection level / 防护等级	IP 65
Operating temperature / 工作温度	-20°C ... +80°C
Storage temperature / 仓储温度	-30°C ... +90°C

#### Mechanical Specifications / 机械参数

MS / 机械行程

US / 有效行程

L / 长度



## Model / 型号 MLCS

### Magnetic Linear Incremental Encoder / 磁线性增量式编码器

#### Internal Spring Type / 内置弹簧型



#### Technical Specifications / 技术参数

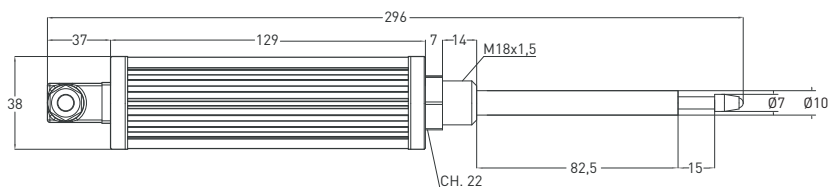
Type of measurement / 测量类型	Magnetic / 磁, incremental / 增量式
Measurement stroke / 测量行程	15 mm
Resolution / 分辨率	1024 puls / mm / 脉冲 / 毫米
Accuracy / 精度	$\pm 10 \mu\text{m}$
Output channels / 输出通道	A, B, Z / A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type / 输出类型	TTL, Linedriver, Push-Pull, High Linedriver
Power supply / 供应电压	8 -24 VDC
Power consumption / 功率消耗 (without load / 空载)	< 50 mA (24 VDC)
Electrical connections / 电气连接	4 pin connector / 4芯接头
Displacement speed / 最大速度	< 3 m/s / 米/秒
Case material / 主体材料	Anodized aluminium / 阳极氧化铝
Mechanical fixing / 机械固定	Ball joints on the both sides / 两边带鱼眼节
Protection level / 防护等级	IP 65
Operating temperature / 工作温度	-20°C ... +80°C
Storage temperature / 仓储温度	-30°C ... +90°C

#### Mechanical Specifications / 机械参数

MS / 机械行程

US / 有效行程

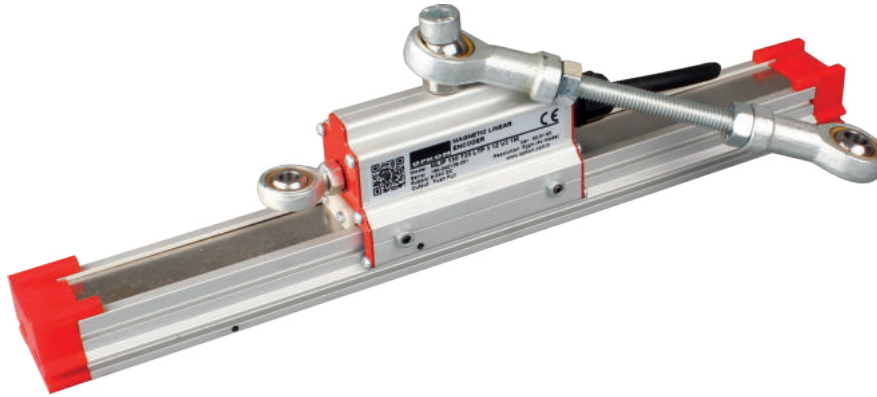
L / 长度



## Model / 型号 MLIP

### Magnetic Linear Incremental Encoder / 磁线性增量式编码器

Excellent Solution for Outdoor Applications and Stone Machinery / 户外应用和石材机械绝佳解决方案



#### Technical Specifications / 技术参数

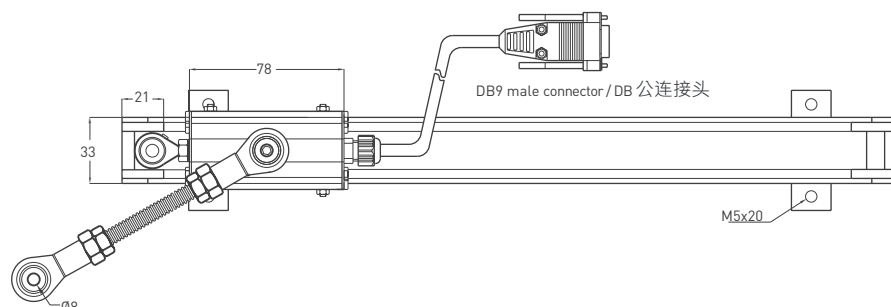
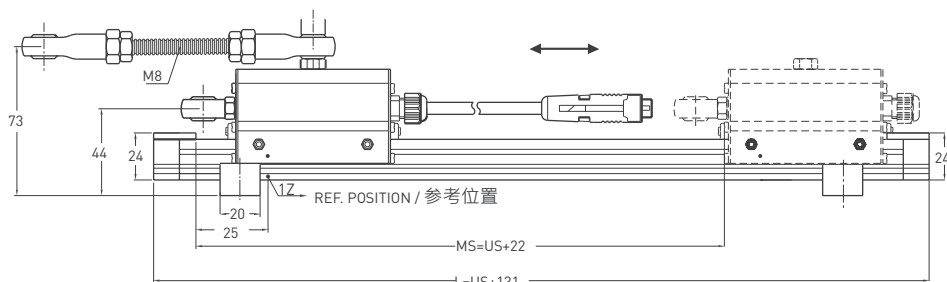
Type of measurement / 测量类型	Magnetic incremental contactless / 磁增量无接触式
Measurement stroke / 测量行程	50 - 50000 mm (up to 50 meters / 上至50米)
Resolution / 分辨率	2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu$ m (4x mode / 型号)
Accuracy / 精度	$\pm$ 40 $\mu$ m
Output channels / 输出通道	A, B, Z / A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type / 输出类型	TTL, Linedriver, Push-Pull, High Linedriver
Power supply / 供应电压	8 -24 VDC or/或 5 VDC
Reference position / 参考位置	Optional / 选配
Electrical connections / 电气连接	2,5 m cable / 米导线 标配 (standard / 标配), DB9 connector with 1 m cable / DB9接头带1米导线 (optional / 选配)
Displacement speed / 位移速度	<3 m/s
Case material / 主体材料	Anodized aluminium / 阳极氧化铝
Mechanical fixing / 机械固定	Ball joints on the both sides / 两边带鱼眼节
Protection level / 防护等级	IP 65
Operating temperature / 工作温度	-20°C ... +80°C
Storage temperature / 仓储温度	-30°C ... +90°C

#### Mechanical Specifications / 机械参数

MS / 机械行程 / 机械行程=有效行程+22

US / 有效行程

L / 长度 / 长=有效行程+131



## Model / 型号 MLI

### Magnetic Linear Incremental Encoder / 磁线性增量式编码器

#### Magnetic Band / 磁条

#### Aluminium Profiles / 铝型材



Aluminium Profiles / 铝型材

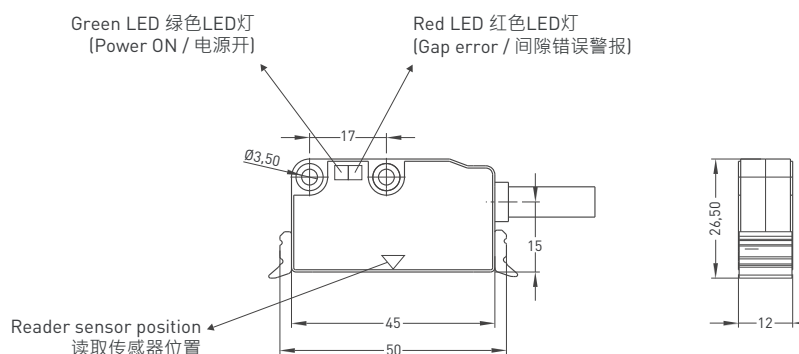
#### MT Technical Specifications / 技术规格

Pole pitch / 极距	5 mm
Accuracy / 精度	$\pm 40 \mu\text{m}$
Dimensions / 尺寸	10 mm x 1,5 mm
Displacement speed / 位移速度	Up to 50 m / 单条可达50米
Cover strip / 保护条	Stainless steel / 不锈钢
Mechanical fixing / 机械固定	Self adhesive and with two end caps / 自带背胶和两个端盖
Protection level / 防护等级	IP 67
Operating temperature / 工作温度	$-20^{\circ}\text{C} \dots +80^{\circ}\text{C}$
Storage temperature / 仓储温度	$-30^{\circ}\text{C} \dots +90^{\circ}\text{C}$

#### MLI Technical Specifications / 技术规格

Type of measurement / 测量类别	Magnetic incremental non-contact / 电磁增量式无接触
Pole pitch / 极距	5 mm
Gap between measuring head and magnetic band 读数头和磁条间隙	2,5 mm
Resolution / 分辨率	2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu\text{m}$ (4x mode)
Accuracy / 精度	$\pm 15 \mu\text{m}$
Output channels / 输出通道	A,B,Z / A,Ā, B,Ā, Z,Ā
Output type / 输出方式	TTL, Linedriver, Push-Pull, High Linedriver
Power supply / 供应电压	8 - 24 VDC (standard), 5 VDC (optional)
Electrical connections / 电气连接	2,5 m cable / 2,5米导线 (standard / 标配), 1 m cable with DB9 connector / 1米导线配DB9连接头
Case material / 外壳材质	ZAMAC with nickel satin coating / ZAMAC 镀雾镍
Displacement speed / 最大速度	< 3 m/s LED with indicator / 带LED指示灯 (standard / 标配) < 15 m/s LED without indicator / 不带LED指示灯 (optional / 选配)
Protection level / 防护等级	IP 66
Operating temperature / 工作温度	$-20^{\circ}\text{C} \dots +80^{\circ}\text{C}$
Storage temperature / 仓储温度	$-30^{\circ}\text{C} \dots +90^{\circ}\text{C}$

#### Mechanical Specifications / 机械参数





# PRODUCTION RANGE

## 其它产品范围

### RESISTIVE POTENTIOMETRIC



Linear Potentiometers Long Stroke Serie  
线性位移传感器长行程系列

### RESISTIVE POTENTIOMETRIC



Linear Potentiometers Short Stroke - Compact Serie  
线性位移传感器短行程系列-紧凑型

### ANALOG V/mA



Linear Potentiometers Internal Voltage - Current Conditioner Serie  
线性位移传感器内置电压-电流转换器系列

### Sensopulse<sup>®</sup> MAGNETOSTRICTIVE

### ANALOG V/mA



Analog Output Non-Contact Magnetostrictive Position Sensors  
非接触式磁致伸缩位移传感器(磁尺)-模拟量输出

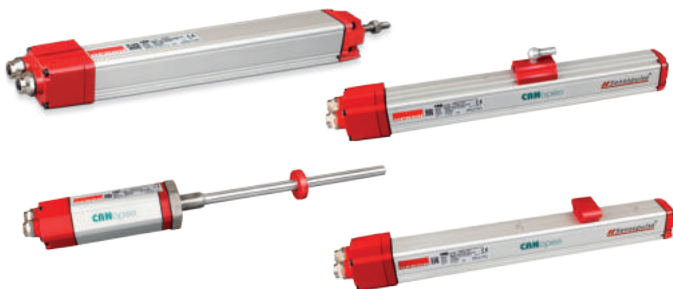
### Sensopulse<sup>®</sup> MAGNETOSTRICTIVE



### CANopen



### CANbus

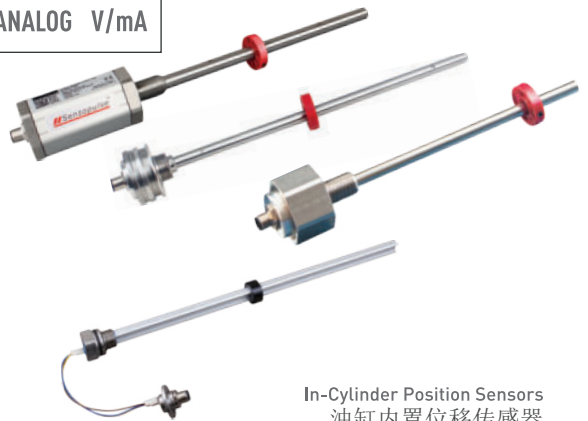


Digital Non-Contact Magnetostrictive Position Sensors  
非接触式磁致伸缩位移传感器(磁尺)-数字式输出

### Sensopulse<sup>®</sup> MAGNETOSTRICTIVE

### RESISTIVE POTENTIOMETRIC

### ANALOG V/mA



In-Cylinder Position Sensors  
油缸内置位移传感器

# PRODUCTION RANGE

## 其它产品范围

INCREMENTAL 

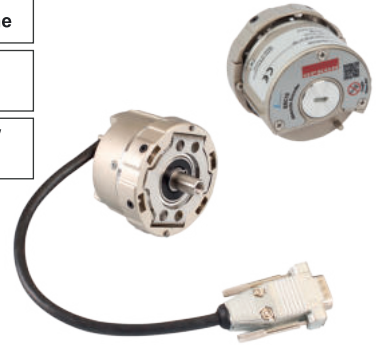


Optic / Magnetic Rotary Encoders  
光/磁旋转式编码器

 Sine Cosine

 BISS INTERFACE

 SSI



Optic Rotary Absolute Encoders 光旋转式绝对值编码器  
(for synchronous gearless motors) (同步无齿轮电机专用)

RESISTIVE POTENTIOMETRIC

INCREMENTAL 

ANALOG V/mA



Draw Wire Encoders 拉绳式编码器  
Draw Wire Potentiometers 拉绳式位移传感器

RESISTIVE POTENTIOMETRIC

ANALOG V/mA



Rotary Sensors Magnetic, 旋转式传感器  
Contactless Analog Output 磁, 无接触式模拟量输出

INCREMENTAL 



Magnetic Linear Encoders  
磁线性编码器(磁栅尺)

 PROFIBUS

 CANopen

 Modbus

 EtherCAT



Analog-FieldBUS Converters  
模拟量-FieldBUS转换器



Panel-Type Measurement and Control Devices  
面板式测量和控制仪



Hot Runner Temperature Controls  
热流道温控器



## WORLDWIDE SALES NETWORK

### 全世界销售网络



**OPKON**

*Sense the motion*

#### Headquarter 总部

R&D, Production 研发, 生产

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Bayrampaşa / İstanbul / TÜRKİYE

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Fax 传真 : +90 (212) 501 48 83

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E-mail 电子邮箱: [export@opkon.com.tr](mailto:export@opkon.com.tr)

#### Germany 德国

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50823 Köln/GERMANY

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Fax 传真 : +49 22159495402

Web 网站 : [www.sensormarket.eu](http://www.sensormarket.eu)

E-mail 电子邮箱: [sales@sensormarket.eu](mailto:sales@sensormarket.eu)

#### China 中国

Subsidiary 子公司

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