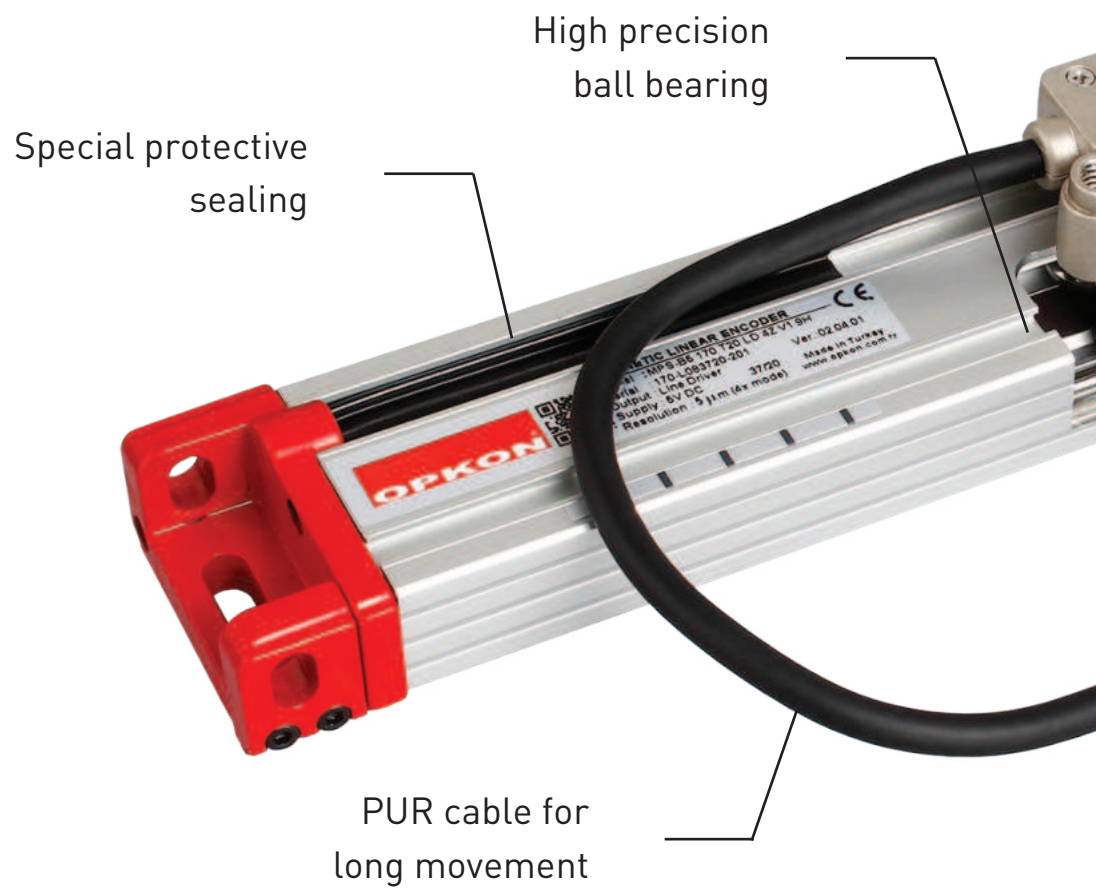


**MAGNETIC LINEAR ENCODERS**

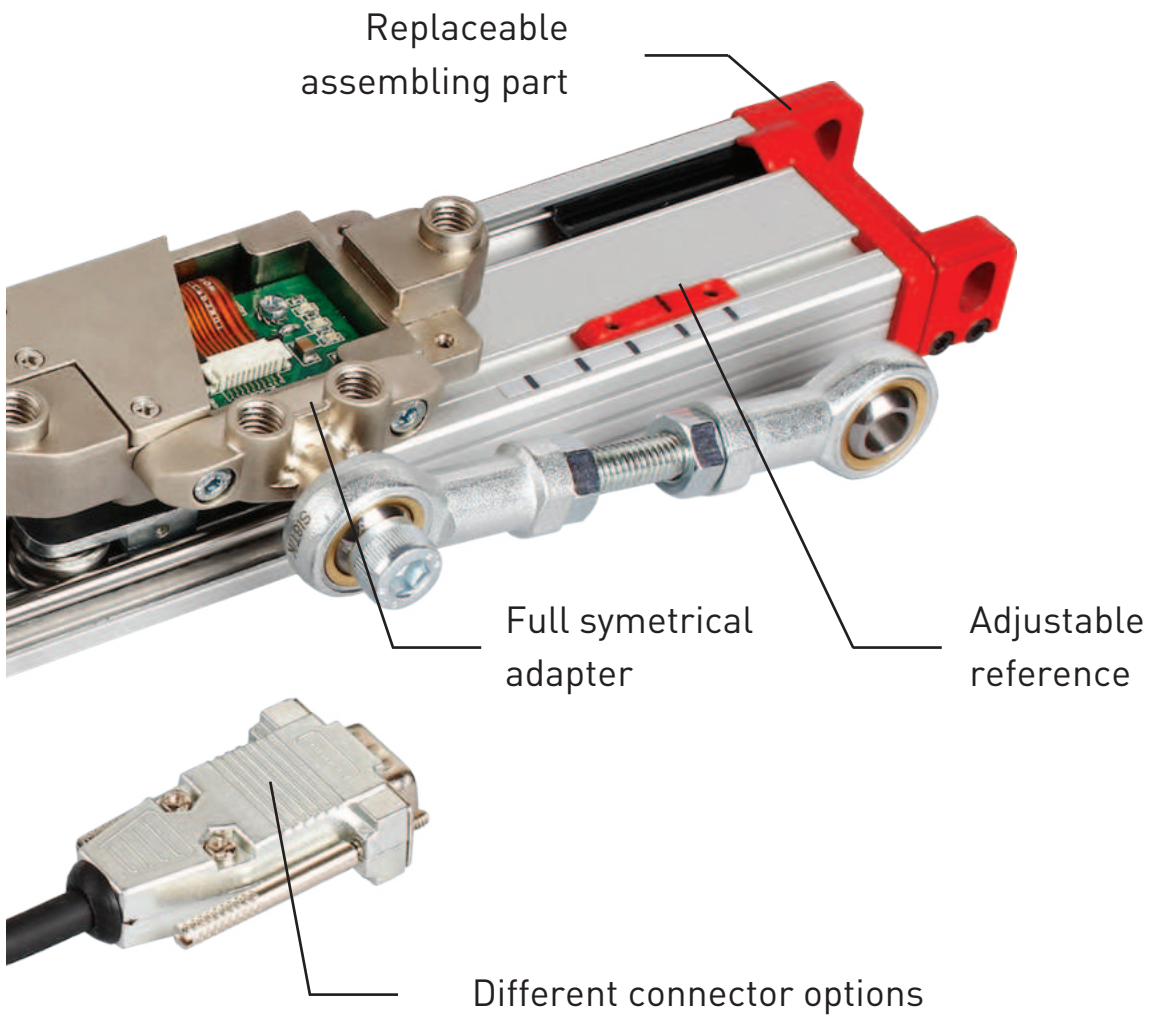
## MPS

### Magnetic Linear Incremental Encoder

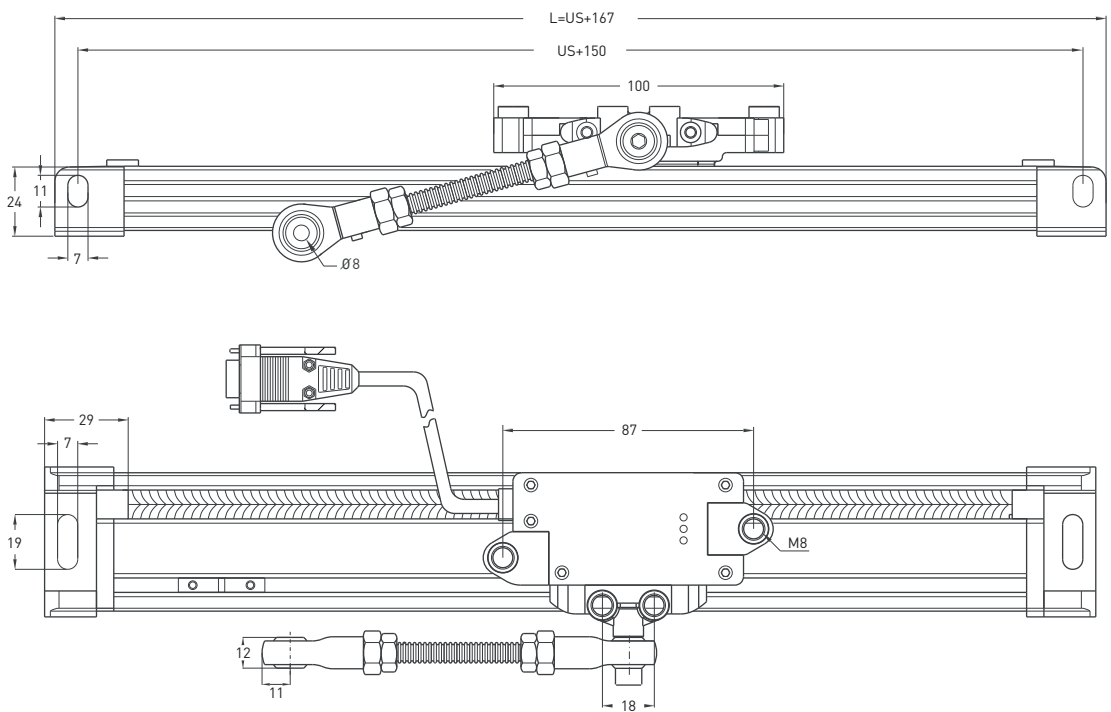
#### High Precision, High Performance Press Brake Scale



Technical Specifications	
Type of measurement	Magnetic incremental non-contact
Measurement stroke	100 - 2000 mm
Resolution	Standard: 5 µm (4x mode), Optional : 2,5 / 5 / 10 / 12,5 / 20 / 25 µm (4x mode)
Repeatability	± 5 µm
Accuracy	Up to ± 20 µm
Output channels	A, B, Z / A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type	TTL, Linedriver, Push-Pull, High Linedriver
Power supply	5 VDC (Standard), 8 - 24 VDC (Optional)
Power consumption (without load)	<40 mA (24 VDC)
Electrical connections	DB9 connector with 1 m cable or M16x8 pin connector
Displacement speed	<3 m/s
Case material	Anodized aluminium
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C



**Mechanical Specifications**



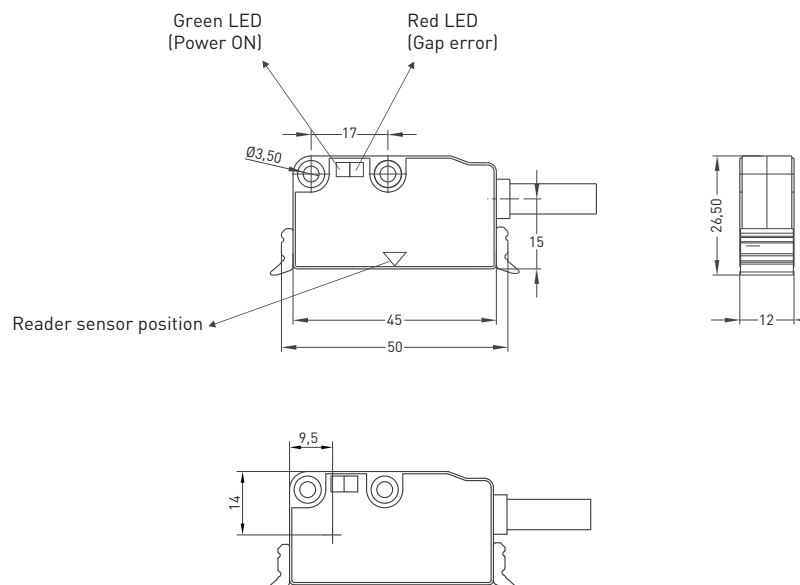
# MLI

## Magnetic Linear Incremental Encoder

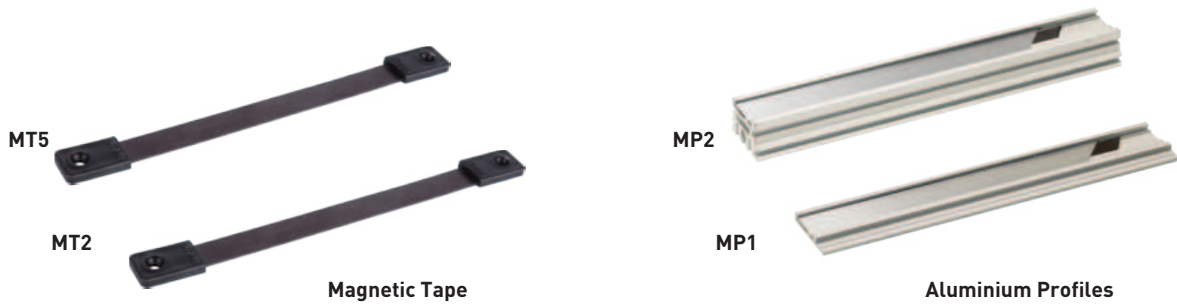


Technical Specifications	
Pole pitch	5 mm
Gap sensor/tape (max)	B5 : 2,5 mm
Resolution	2,5 / 5 / 10 / 12,5 / 20 / 25 µm (4x mode)
Type of measurement	Magnetic incremental non-contact
Accuracy	Up to ± 20 µm
Output signal type	TTL, Linedriver, Push-Pull, High Linedriver
Power supply	8 - 24 VDC (standard), 5 VDC (optional)
Electrical connections	2,5 m cable (standard), 1 m cable with DB9 connector (optional)
Case material	Zamac with nickel satin coating
Displacement speed	3 m/s with LED indicator (standard) 15 m/s without LED indicator (optional)
Protection level	IP 66
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

### Mechanical Specifications



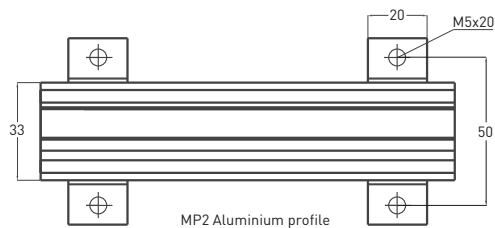
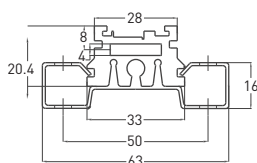
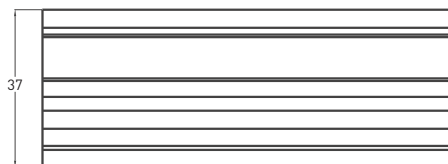
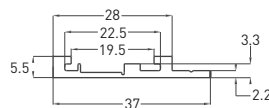
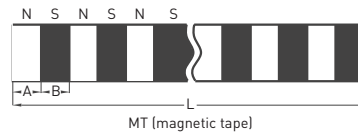
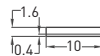
# MT2, MT5 Magnetic Tape MP1, MP2 Aluminium Profile



## MT Technical Specifications

Pole pitch	2 mm, 5 mm
Accuracy	$\pm 40 \mu\text{m}$
Dimensions	10 mm x 1,5 mm
Max. stroke	Up to 50 m single piece
Cover strip	Stainless steel
Mechanical fixing	Self adhesive
Protection level	IP 67
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

## Mechanical Specifications



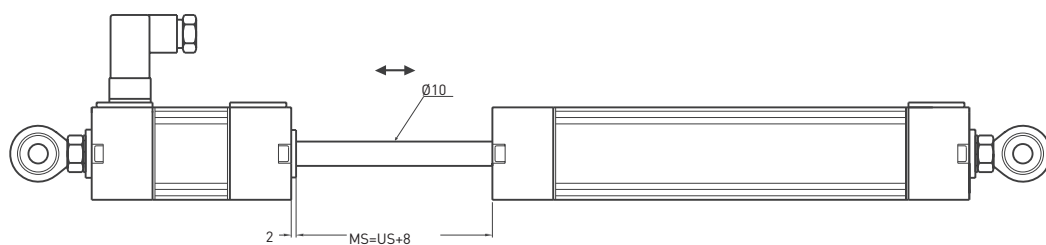
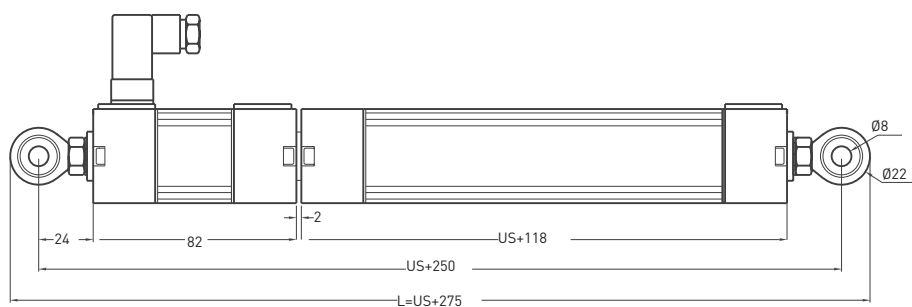
# MLC

## Magnetic Linear Incremental Encoder Special for Roll-Bending Machinery



Technical Specifications	
Type of measurement	Magnetic incremental non-contact
Measurement stroke	50 - 800 mm
Resolution	2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu\text{m}$ (4x mode)
Accuracy	$\pm 40 \mu\text{m}$
Output channels	A, B / A, $\bar{A}$ , B, $\bar{B}$
Output type	TTL, Linedriver, Push-Pull, High Linedriver
Power supply	8 -24 VDC or 5 VDC
Power consumption (without load)	<40 mA (24 VDC)
Electrical connections	4 pin connector (standard), 1 m cable (optional)
Displacement speed	<3 m/s
Case material	Anodized aluminium
Mechanical fixing	Ball joints on the both sides
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

### Mechanical Specifications



## MLCS

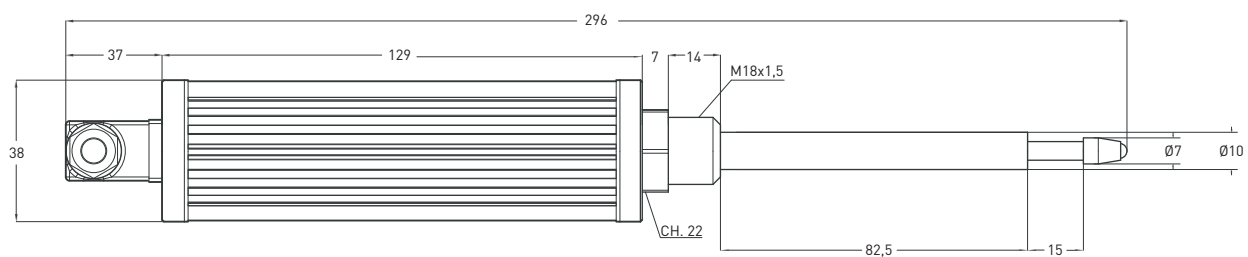
### Magnetic Linear Incremental Encoder Internal Spring Type



#### Technical Specifications

Type of measurement	Magnetic, incremental
Measurement stroke	15 mm
Resolution	1024 pulse / mm
Accuracy	$\pm 10 \mu\text{m}$
Output channels	A, B, $\bar{A}$ , $\bar{B}$
Output type	Push-Pull, Linedriver, HLD
Supply voltage	8 - 24 VDC
Power consumption (without load)	< 50 mA
Electrical connection	4 pin connector
Max. speed	< 3 m/s
Case material	Anodized aluminium
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

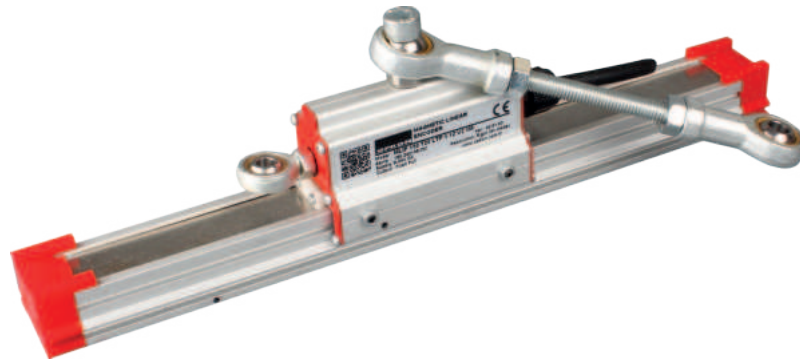
#### Mechanical Specifications



# MLIP

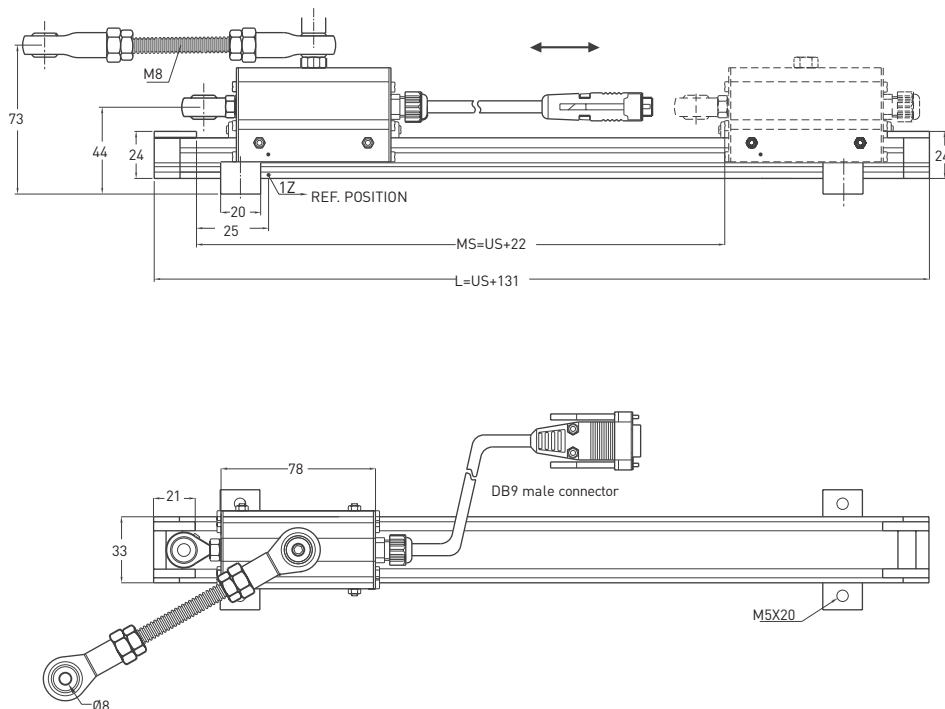
## Magnetic Linear Incremental Encoder

Excellent Solution for Outdoor Applications and Stone Machinery



Technical Specifications	
Type of measurement	Magnetic incremental contactless
Measurement stroke	50 - 50000 mm (can be extend up to 50 meters)
Resolution	2,5 / 5 / 10 / 12,5 / 20 / 25 $\mu$ m resolution (4x mode)
Accuracy	$\pm 40 \mu$ m
Output channels	A,B,Z or A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Output type	Push-Pull, TTL, Linedriver or High Linedriver
Power supply	5 VDC or 8 -24 VDC
Reference position	Optional
Power consumption(without load)	< 40 mA (24 VDC)
Electrical connections	2.5 m cable standard, DB9 connector with 1 m cable
Case material	Anodized aluminium
Protection level	IP 66
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

### Mechanical Specifications





# PRODUCTION RANGE

**RESISTIVE  
POTENTIOMETRIC**



Linear Potentiometers  
Long Stroke Serie

**RESISTIVE  
POTENTIOMETRIC**



Linear Potentiometers  
Short Stroke - Compact Serie

**ANALOG V/ma**



Linear Potentiometers  
Internal Voltage - Current Conditioner Serie

**Sensopulse<sup>®</sup>  
MAGNETOSTRICTIVE**

**ANALOG V/ma**



Non-Contact Magnetostrictive  
Position Sensors

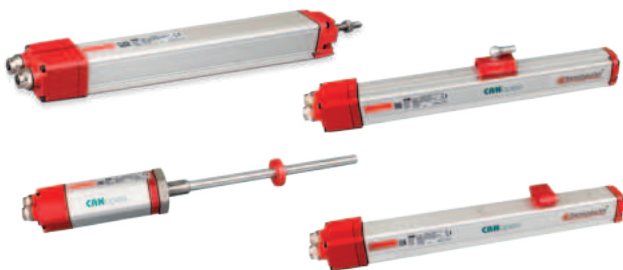
**Sensopulse<sup>®</sup>  
MAGNETOSTRICTIVE**



**CANopen**



**CANbus**

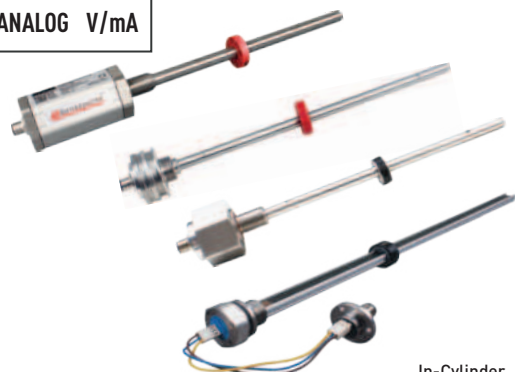


Non-Contact Magnetostrictive  
Position Sensors

**Sensopulse<sup>®</sup>  
MAGNETOSTRICTIVE**

**RESISTIVE  
POTENTIOMETRIC**

**ANALOG V/ma**



In-Cylinder  
Position Sensors

# PRODUCTION RANGE

INCREMENTAL 

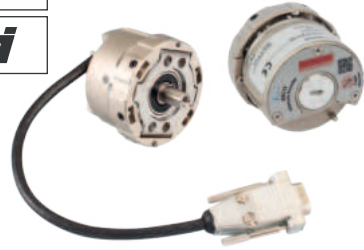


Optic / Magnetic  
Rotary Encoders

 Sine  
Cosine

 BISS  
INTERFACE

 SSI



Optic Rotary Absolute Encoders  
(for synchronous gearless motors)

RESISTIVE  
POTENTIOMETRIC

INCREMENTAL 

ANALOG V/mA



Draw Wire Potentiometers  
Draw Wire Encoders

RESISTIVE  
POTENTIOMETRIC

ANALOG V/mA



Rotary Sensors Magnetic,  
Contactless Analog Output

INCREMENTAL 



Magnetic Linear Encoders

 PROFIBUS

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 Modbus

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Analog-FieldBUS Converters



Panel-Type Measurement and Control Devices



Hot Runner Temperature Controls





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