

DRAW WIRE ENCODERS
DRAW WIRE POTENTIOMETERS

DWEM1

Draw Wire Encoder

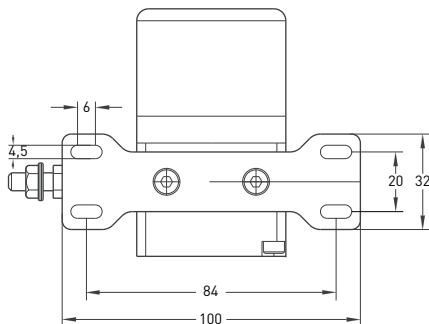
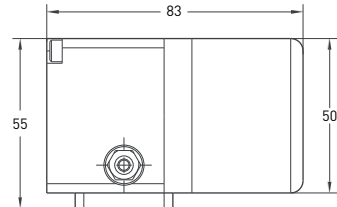
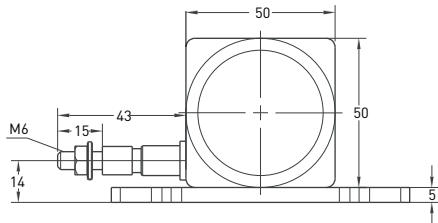
Metal Case



Technical Specifications

Measurement stroke	0 - 1200 mm
Type of measurement	Optical
Resolution	0.1 mm/pulse, 0.2 mm/pulse
Output signal	A,B,Z or A,Ā B,Ā Z,Ā
Output signal type	Push-Pull, TTL Linedriver or High Linedriver
Power supply	8 -24 VDC, 5 VDC or 5 - 30 VDC
Power consumption (without load)	< 40 mA (24 VDC)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 500 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

Mechanical Specifications



Push-Pull Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray

TTL - High Linedriver Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray
 Ch A inv. : Blue
 Ch B inv. : Red
 Ch Z inv. : Pink

DWEM2

Draw Wire Encoder

Metal Case

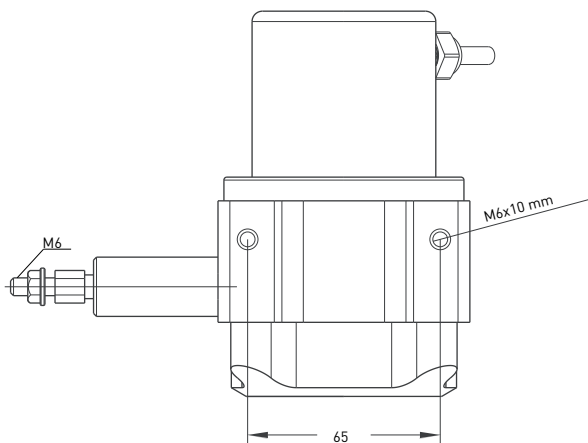
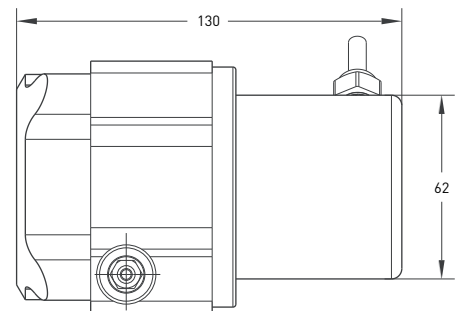
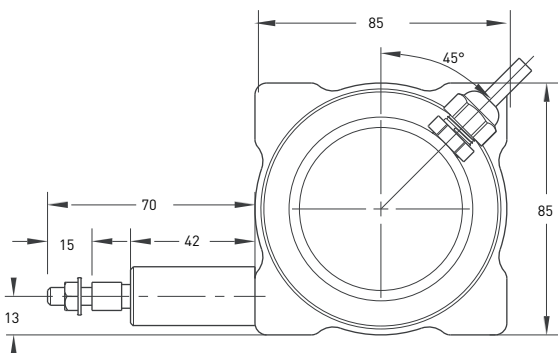
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Technical Specifications

Measurement stroke	1250 - 4200 mm
Type of measurement	Optical
Resolution	0.1 mm/pulse, 0.2 mm/pulse
Output signal	A,B,Z or A,Ä B,Û Z,Ž
Output signal type	Push-Pull, TTL Linedriver or High Linedriver
Power supply	8 -24 VDC, 5 VDC or 5 - 30 VDC
Power consumption (without load)	< 40 mA (24 VDC)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 1300 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

Mechanical Specifications



Push-Pull Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray

TTL - High Linedriver Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray
 Ch A inv. : Blue
 Ch B inv. : Red
 Ch Z inv. : Pink

DWEM3

Draw Wire Encoder

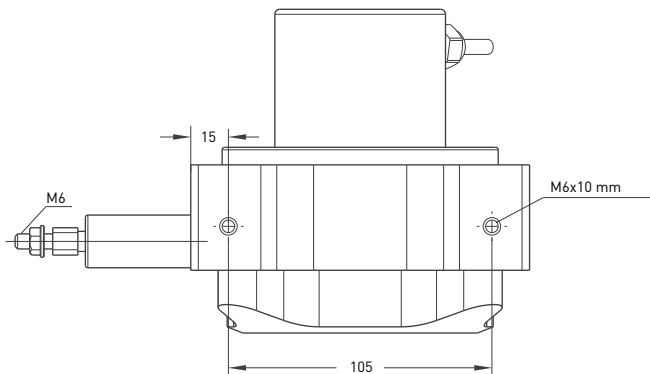
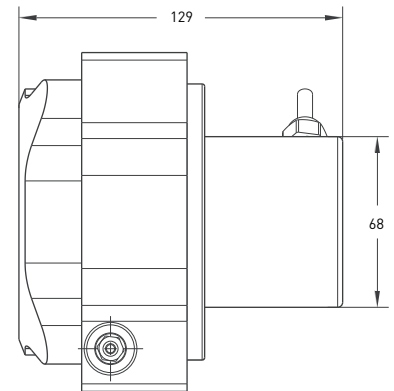
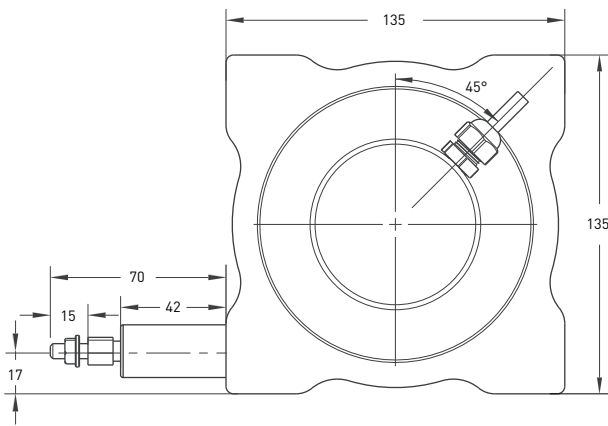
Metal Case



Technical Specifications

Measurement stroke	4250 - 10000 mm
Type of measurement	Optical
Resolution	0.1 mm/pulse, 0.2 mm/pulse
Output signal	A,B,Z or A,Ā B,Ḃ Z,Ż
Output signal type	Push-Pull, TTL Linedriver or High Linedriver
Power supply	8 -24 VDC, 5 VDC or 5 - 30 VDC
Power consumption (without load)	< 40 mA (24 VDC)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 2200 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

Mechanical Specifications



Push-Pull Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray

TTL - High Linedriver Cable Output

+V : Brown
 0V : White
 GND : Shield
 Ch A : Yellow
 Ch B : Green
 Ch Z : Gray
 Ch A inv. : Blue
 Ch B inv. : Red
 Ch Z inv. : Pink

DWEM4

Draw Wire Encoder Metal Case

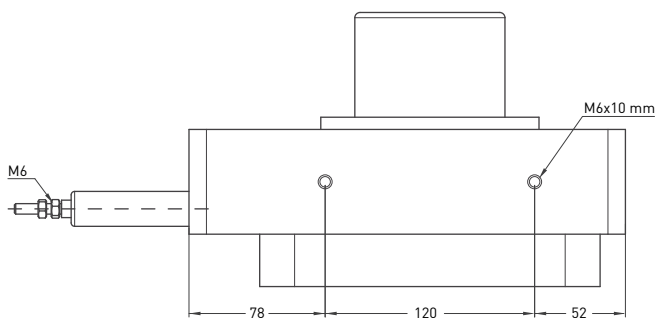
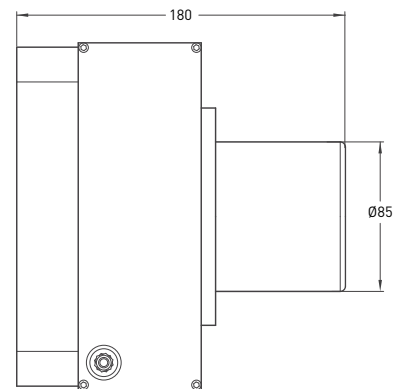
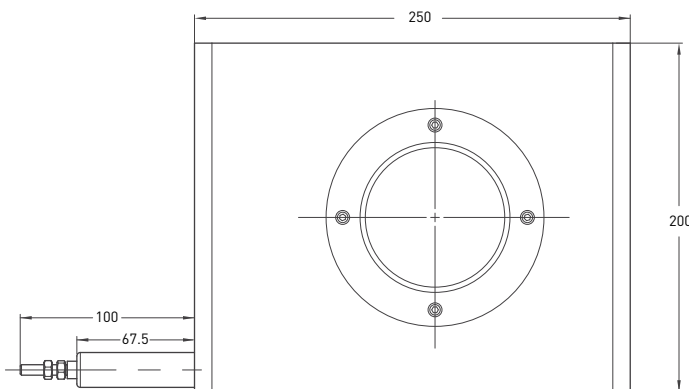
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Technical Specifications

Measurement stroke	10000 - 20000 mm
Type of measurement	Optical
Resolution	0,1 mm/pulse 0,2 mm/pulse
Output signal	A, B, Z or A, \bar{A} , B, \bar{B} , Z, \bar{Z}
Output signal type	Push-Pull, TTL Linedriver or HLD
Power supply	5 - 24 VDC, 5 VDC
Power consumption (without load)	< 40 mA (24 VDC)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 5000 gr
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

Mechanical Specifications



Push-Pull Cable Output

+V : Brown
0V : White
GND : Shield
Ch A : Yellow
Ch B : Green
Ch Z : Gray

TTL - High Linedriver Cable Output

+V : Brown
0V : White
GND : Shield
Ch A : Yellow
Ch B : Green
Ch Z : Gray
Ch A inv. : Blue
Ch B inv. : Red
Ch Z inv. : Pink

DWPM1

Draw Wire Potentiometer

Metal Case

RESISTIVE Ω

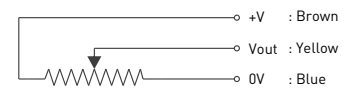
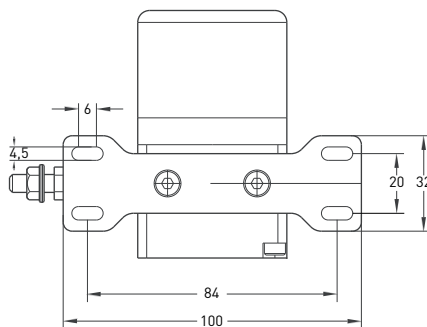
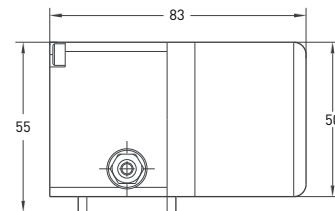
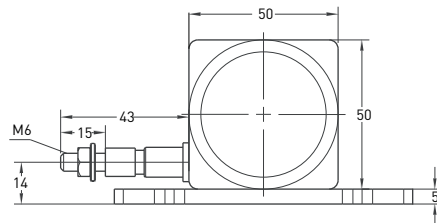
ANALOG 0-10 V
4-20 mA



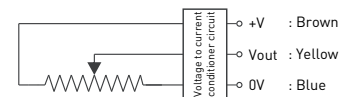
Technical Specifications

Measurement stroke	0 - 1200 mm
Type of measurement	Resistive (voltage divider)
Linearity	%0.5
Output type	Potentiometric output : 5 kOhm / 10 kOhm Analog output : 0 - 5V, 0 - 10 V, 0 - 20 mA, 4 - 20 mA
Power supply	24 VDC max. 15 - 30 V (voltage / current output)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 350 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

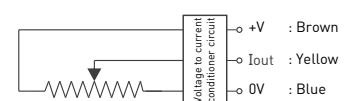
Mechanical Specifications



POTENTIOMETRIC OUTPUT



0-10V VOLTAGE OUTPUT



0-20mA / 4-20mA CURRENT OUTPUT

DWPM2

Draw Wire Potentiometer Metal Case



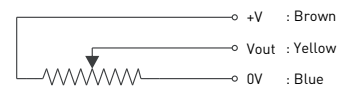
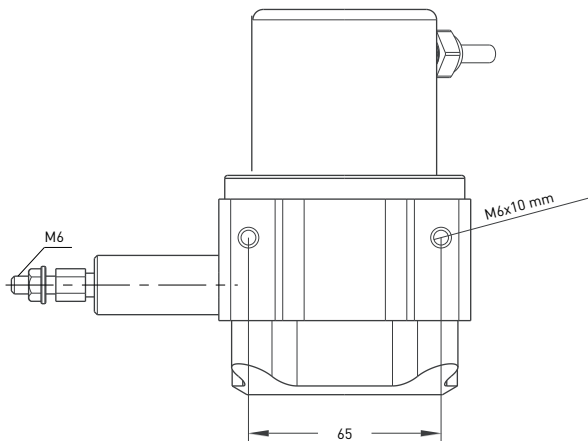
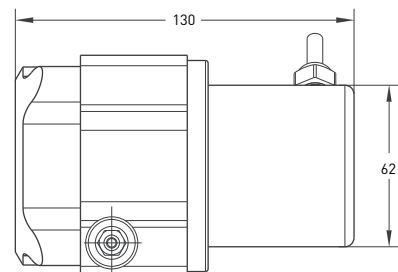
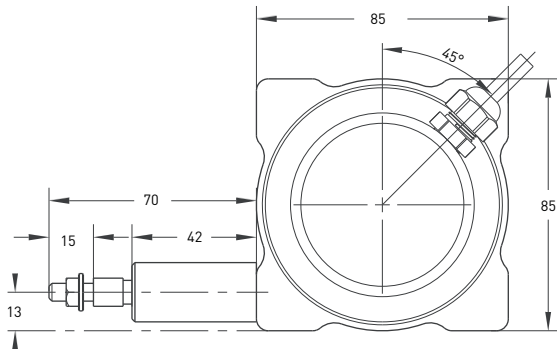
RESISTIVE Ω

ANALOG 0-10 V
4-20 mA

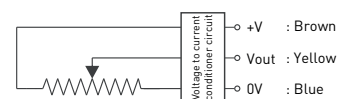
Technical Specifications

Measurement stroke	1250 - 4500 mm
Type of measurement	Resistive (voltage divider)
Linearity	%0.5
Output type	Potentiometric output : 5 kOhm / 10 kOhm Analog output : 0 - 5V, 0 - 10 V, 0 - 20 mA, 4 - 20 mA
Power supply	24 VDC max. 15 - 30 V (voltage / current output)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 1300 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

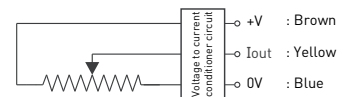
Mechanical Specifications



POTENTIOMETRIC OUTPUT



0-10V VOLTAGE OUTPUT



0-20mA / 4-20mA CURRENT OUTPUT

DWPM3

Draw Wire Potentiometer

Metal Case

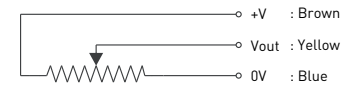
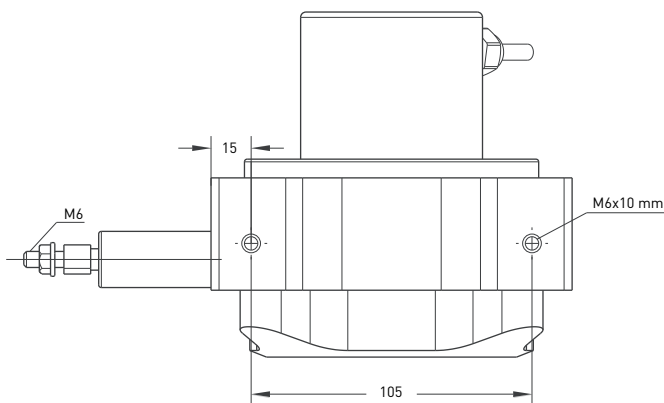
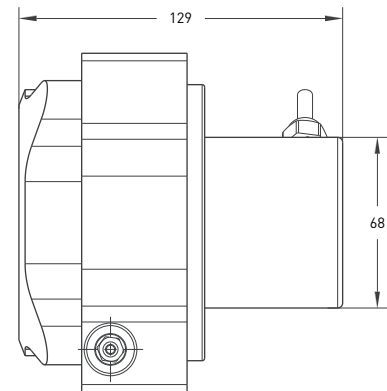
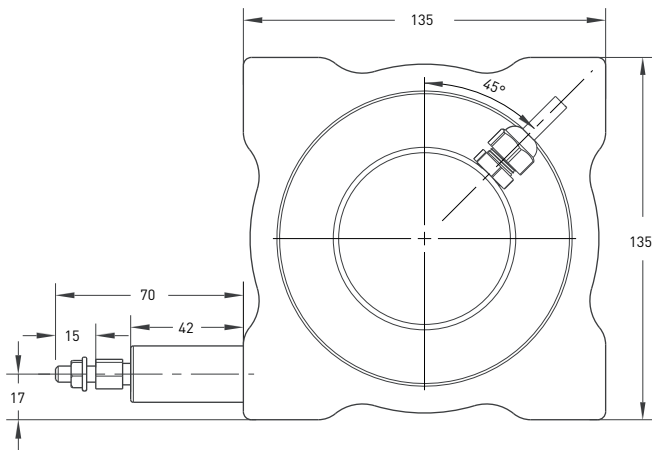
RESISTIVE Ω

ANALOG 0-10 V
4-20 mA

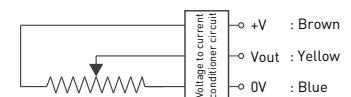


Technical Specifications	
Measurement stroke	4550 - 10000 mm
Type of measurement	Resistive (voltage divider)
Linearity	%0.5
Output type	Potentiometric output : 5 kOhm / 10 kOhm Analog output : 0 - 5V, 0 - 10 V, 0 - 20 mA, 4 - 20 mA
Power supply	24 VDC max. 15 - 30 V (voltage / current output)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 2100 gr.
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

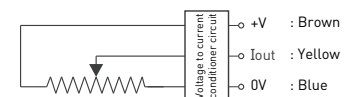
Mechanical Specifications



POTENTIOMETRIC OUTPUT



0-10V VOLTAGE OUTPUT



0-20mA / 4-20mA CURRENT OUTPUT



DWPM4

Draw Wire Potentiometer

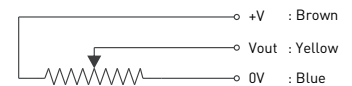
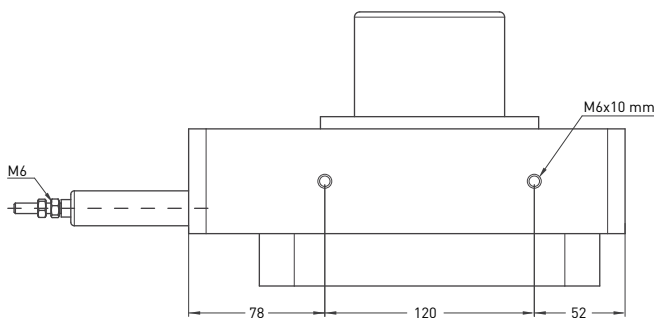
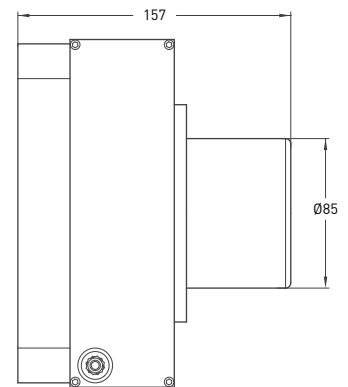
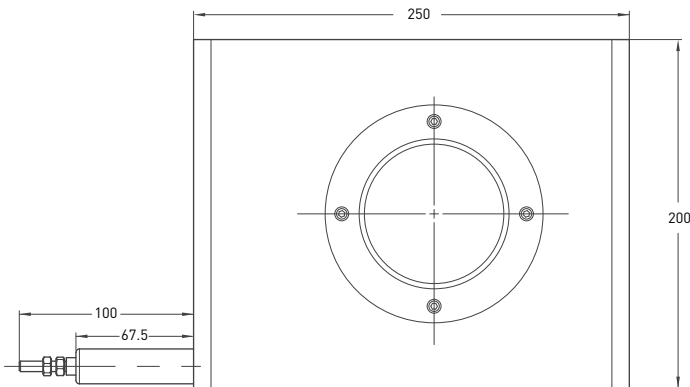
Metal Case

RESISTIVE Ω

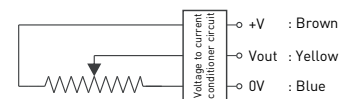
ANALOG 0-10 V
4-20 mA

Technical Specifications	
Measurement stroke	10000 - 20000 mm
Type of measurement	Resistive (voltage divider)
Linearity	0,5 %
Output type	Resistive output : 5 kOhm / 10 kOhm Analog output : 0-5 V, 0-10 V, 0-20 mA, 4-20 mA
Power supply	24 VDC max. 15 - 30 V (voltage / current output)
Electrical connections	2.5 m cable (standard)
Displacement speed	2 m/s
Case material	Aluminium
Weight	< 5000 gr
Protection level	IP 65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

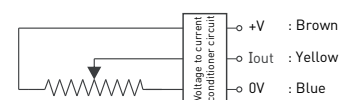
Mechanical Specifications



POTENTIOMETRIC OUTPUT



0-10V VOLTAGE OUTPUT



0-20mA / 4-20mA CURRENT OUTPUT

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[®]
MAGNETOSTRICTIVE**

ANALOG V/mA



Non-Contact Magnetostrictive
Position Sensors

**Sensopulse[®]
MAGNETOSTRICTIVE**



CANopen



CANbus

EtherCAT

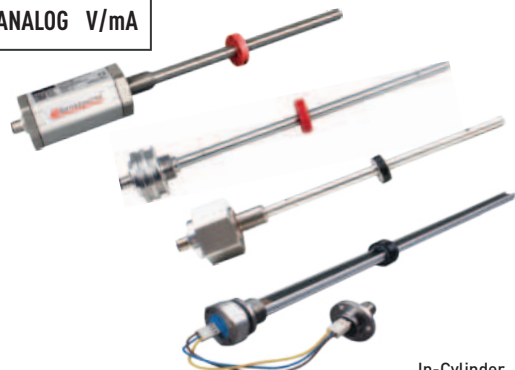


Non-Contact Magnetostrictive
Position Sensors

**Sensopulse[®]
MAGNETOSTRICTIVE**

**RESISTIVE
POTENTIOMETRIC**

ANALOG V/mA



In-Cylinder
Position Sensors

PRODUCTION RANGE

INCREMENTAL 

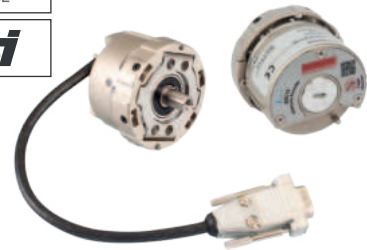


Optic / Magnetic
Rotary Encoders

 Sine
Cosine

 IBISS
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

 CANopen

 Modbus

 EtherCAT



Analog-FieldBUS Converters



Panel-Type Measurement and Control Devices



Hot Runner Temperature Controls



TÜRKİYE
Headquarter, R&D, Production

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