

### Maxi Draw wire mechanics



with the shaft encoders of Series 58

**Your benefit:**

- direct length measurement
- long measuring lengths up to 40 m
- high repeatability
- easy assembly
- no additional guidance system
- wire guidance possible using guide pulleys
- Distance and angle measurement are standard tasks in machine-building and

engineering industries. Kübler wire-actuated transducers are an economical and easy to handle solution. Wire-actuated transducers transform linear movements into rotary motion by winding/unwinding a wire. The rotary motion is transmitted to an incremental or absolute encoder. Remote display units or controls can be used to display/process the measured values. Please ask about the Kübler range of displays and counters!

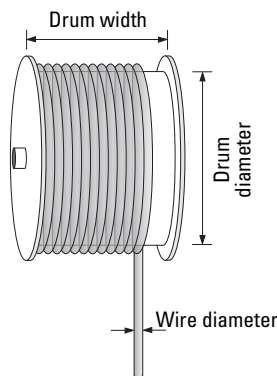
**Mechanical characteristics of the draw-wire encoder:**

Measuring range:	up to 40000 mm
Required force:	min. 25 N, on wire
Travel speed:	max. 4 m/s
Working temperature:	-20 .... + 85 °C
Material:	Housing: AL, wire: steel, wire output: plastic
Resolution:	depends on the used encoder: drumm diameter = 400 mm. By an encoder with 4096 pulses per resolution: $i = 400/4000 = 0,1 \text{ mm}$
Weight:	at 40000 mm length appr. 9 kg

**Note!**

If the maximum extension length is exceeded, the wire and transducer will be damaged.

**Operating principle:**



**Construction:**

At the core of a wire draw encoder is a drum mounted on bearings, onto which a wire is wound. The winding takes place via a spring-loaded device.

**Accuracy/Measuring range:**

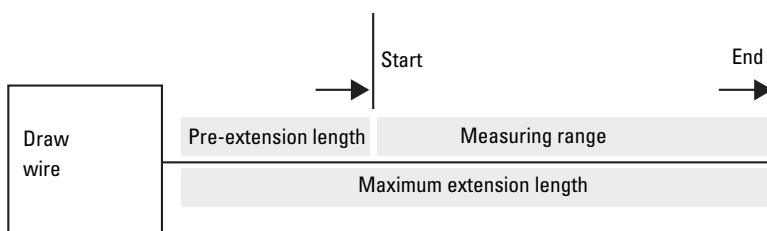
The mechanical construction ensures that the wire is evenly wound onto the drum. The dimensions of the drum (diameter and width) and the diameter of the wire determine the maximum length of the wire.

**Ordering information:**

Please choose the measuring range suitable for your application, taking into consideration the possible wire variants. Please supply the pre-extension length for your application. When adding the two values 'measuring range' and 'pre-extension length', the maximum extension length must not be exceeded.

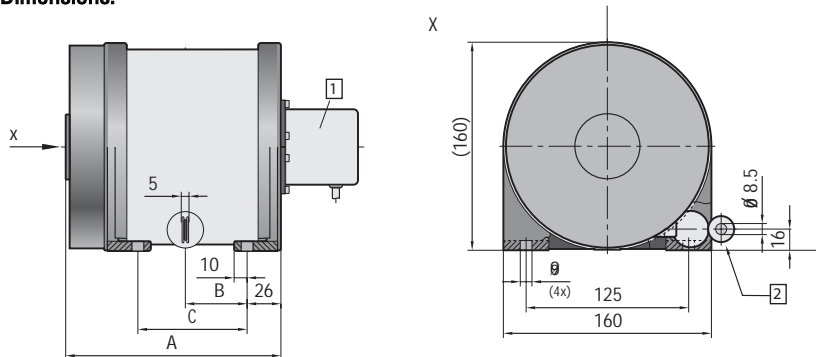
Linear Measuring Technology  
Magnetic, Draw wire, Kits

**Definition** of the terms 'measuring range' and 'pre-extension length'



### Maxi Draw wire mechanics - can be combined for extra length

#### Dimensions:



Wire length	13500	27000	40000
A	166	257	364
B	48	73	112
C	84	146	274

1 encoder 2 Wire outlet

#### Order code:

Draw wire actuator

Wire length

- 37 = 13 500 mm, steel wire
- 38 = 27 000 mm, steel wire
- 39 = 40 000 mm, steel wire

D8.14XX.XXXX.XXXX

Encoder information\*

Resolution/pulses/protocol,  
these data depends on the  
chosen encoder\*

Type of connection  
these data depends on the  
chosen encoder\*

Output circuits  
these data depends on the  
chosen encoder\*

encoder\*

- 00 = 5800    02 = 5802
- 04 = 5804    05 = 5805
- 10 = 5810    60 = 5860
- 61 = 5861    62 = 5862

\*These specifications determine the exact encoder desired. The first two figures show the encoder type, e.g. 5802. For the remaining characteristics of the encoder, please refer to the encoder catalogue. The characteristics are identical to the order code for the encoder.

#### Ordering example:

A measuring length of 40 m is desired. An absolute multturn encoder with an SSI interface and a supply voltage of 5 ... 30 V DC is to be connected to the draw wire encoder. The encoder is to be fitted with a radial plug and set to 25 bit Gray code:

#### Order code:

D8.1439.6224.2004

25 Bit Gray Code (12 x 13 Bit)

encoder 5862 SSI 5 ... 30 V DC,  
radial plug M23,  
12 pin

Specifications for the draw wire mechanics

#### Order code for draw wire mechanics with-out encoder:

8.0000.7000.00XX

Range

Measuring length

- 37 = 13 500 mm
- 38 = 27 000 mm
- 39 = 40 000 mm

