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Linear Measuring Technology
Magnetic, Draw wire, Kits

Linear measuring system **LIMES L1**



Your benefit

Magnetic sensor

- Not affected by dust, shavings, humidity
- Resolution up to 0.025 mm
- Speed-proportional signal output
- Periodical point of reference

Magnetic band

- For easy mounting
- Resistant to humidity, fluid and oil

Product features

- Protection class IP 67 of the magnetic sensor
- Working temperature $-10 \dots +70 \text{ }^\circ\text{C}$
- Supply voltage 24 V DC and 5 V DC
- Speed up to 25 m/s

Technical data magnetic sensor **LIMES L1**:

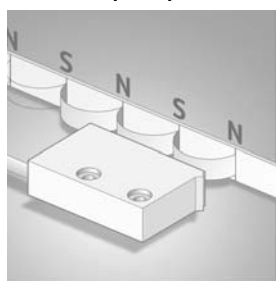
Supply voltage:	24 V DC $\pm 20 \%$ or 5 V DC $\pm 5 \%$
Connection / cable length:	flying leads/2 m cable
Output circuit:	push pull or line-driver*
Permissible load/channel:	push pull: max. $\pm 50 \text{ mA}$ line-driver: max. $\pm 20 \text{ mA}$
Output signal:	inverted
Reference signal:	index periodical
Resolution:	0.025 mm on quadruple evaluation
Max speed:	25 m/s
Power consumption:	max. 70 mA
Output signals:	A, \bar{A} , B, \bar{B} , I, \bar{I}
Gap sensor / magnetic band:	0.1 ... 1.0 mm
Adjusting tolerance:	lateral offset: $\pm 1 \text{ mm}$; angle offset $\pm 3^\circ$
System accuracy:	$\pm (0.05 + 0.01 \times L) \text{ mm}$, L: length in [m] at $T = 20 \text{ }^\circ\text{C}$
Repeat accuracy	± 1 increment
Jitter:	$< 15\%$ for sensor/magnetic band gap 0,5 mm
Interference protection class:	3, to IEC 801
Humidity:	100 % rF, condensation permissible
Temperature ranges:	working temperature: $-10 \dots +70 \text{ }^\circ\text{C}$ storage temperature: $-30 \dots +80 \text{ }^\circ\text{C}$
Shock resistance:	200 g/6 ms
Vibration resistance	10 g/50 Hz
Protection class:	IP67 according to DIN 40050 (housing)
Housing:	Plastic, green
Cable:	PUR $8 \times 0.1 \text{ mm}^2$ shielded, may be used in trailing cable installations

* For line driver (RS 422) output terminal resistors are to be used $\geq 470 \text{ } \Omega$ to prevent thermal stress.

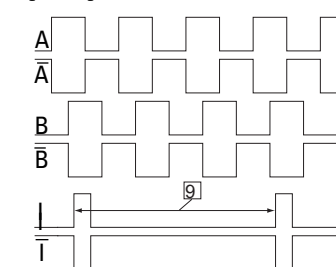
Technical data magnetic band **LIMES B1**:

Pole gap	2 mm from pole to pole
Dimensions:	Width: 10 mm; Thickness: 1.7 mm with masking tape
Temperature coefficient:	$(11 \pm 1) \times 10^{-6} / \text{K}$
Temperature ranges:	working temperature: $-20 \dots +70 \text{ }^\circ\text{C}$ storage temperature: $-40 \dots +70 \text{ }^\circ\text{C}$
Mounting:	adhesive joint
Measuring:	0.1 m (to receive an optimal result of measurement, the magnetic band should be ca 0.1 m longer than the desired measuring length)
Bending radius:	min. 50 mm

Functional principle:

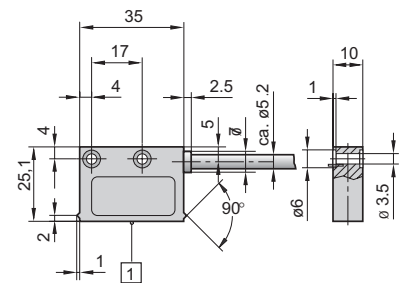
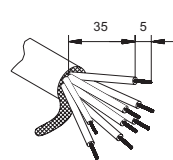


Signal figures

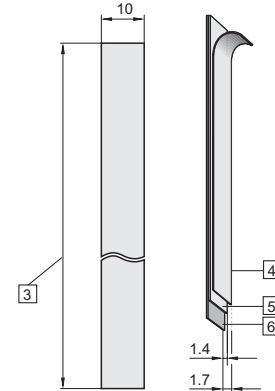


9] periodic index signal (every 2 mm)
the logical allocation A, B and I-signal can change

Connection:



1] active measuring



3] length L, max. 90 m

4] masking tape

5] magnetic band

6] carrier band

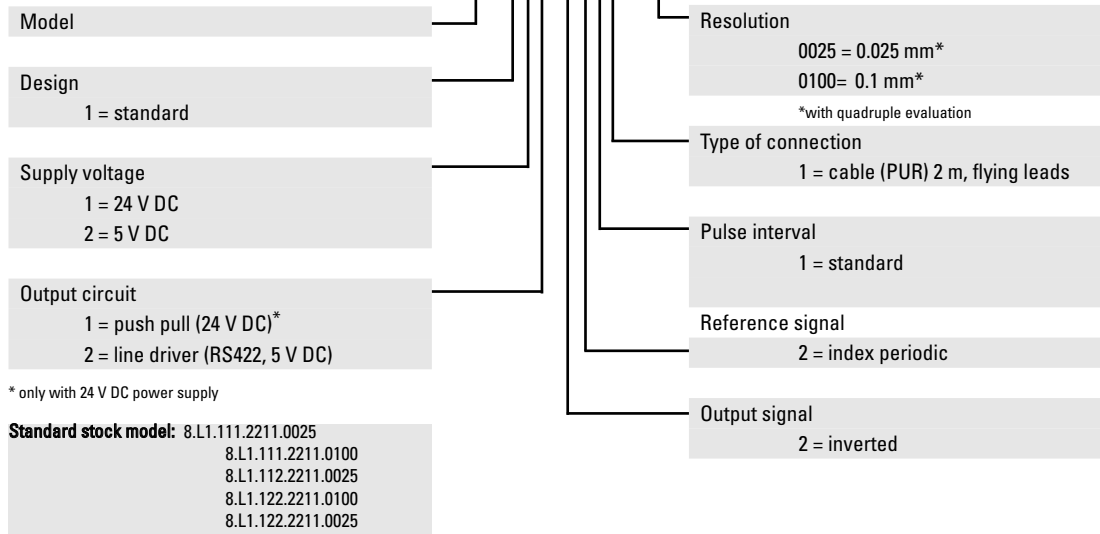
Inverted signal with index signal

Signal	Colour
GND	black
U_B	brown
A	red
\bar{A}	orange
\bar{B}	yellow
B	green
\bar{I}	blue
I	violet

Linear measuring system **LIMES L1**

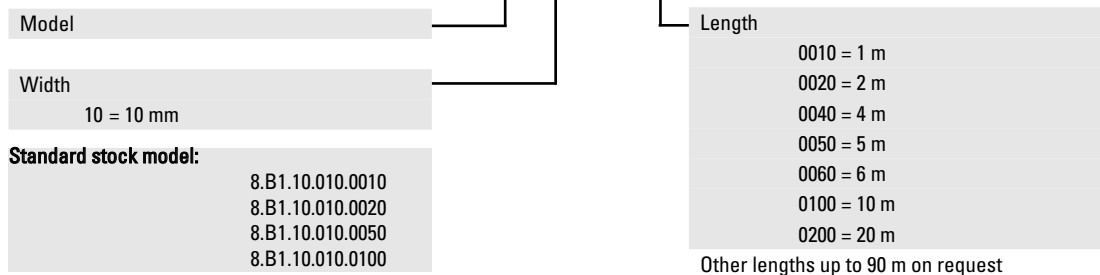
Order code magnetic sensor **LIMES L1**:

8.L1.1XX.22 11.0XXX



Order code magnetic band **LIMES B1**

8.B1.10.010.XXXX



Display 571 for **LIMES L1**



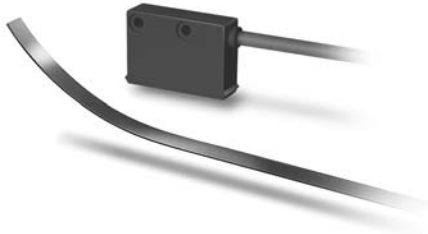
Your benefit

- AC and DC supply voltage in one unit 24 V DC/115/230 V AC
- Programmable measurement functions: frequency, speed, cycle time as well as many count and timing functions.
- Display may be adjusted using scaling-features
- Easy programming with 2 keys
- Large 15 mm high LED-display, 6 digit, with adjustable brightness

Product feature

- Fast count input for our **LIMES L1** linear measurement system (100 kHz)
- Version with 2 opto-coupler outputs as limits
- Version with scaling adjusted output, resolution 14 Bit, 0 ... 10 V, 0 ... -10 V, 0 ... 20 mA or 4 ... 20 mA
- Version with serial interface RS232/485
- 48 x 96mm DIN-housing, IP 65

Linear measuring system LIMES L2



Your benefit

Magnetic sensor

- resolution 0.005 mm
- Not affected by dust, shavings, humidity
- speed-proportionally signal output
- periodical point of reference

Magnetic band

- for easy mounting
- resistant to humidity, fluid and oil

Product features

- protection class IP 67 of the magnetic sensors
- working temperature $-10 \dots +70 \text{ }^\circ\text{C}$
- supply voltage 24 V DC and 5 V DC
- speed to 14 m/s

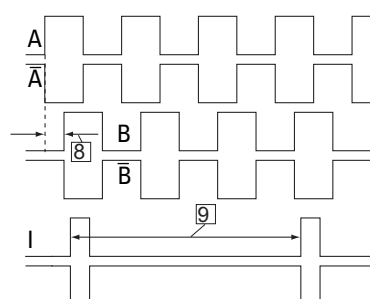
Technical data magnet sensor L2:

Supply voltage:	24 V DC $\pm 20 \%$ or 5 V DC $\pm 5 \%$
Connection / cable length:	flying leads/2 m cable
Output circuit:	push pull or line-driver*
Permissible load/channel:	push pull: max. $\pm 50 \text{ mA}$ line-driver: max. $\pm 20 \text{ mA}$
Pulse interval:	1 μs (edge interval) that meets 4 μs /period
Resolution:	0.005 mm (0.02 mm) on quadruple evaluation
Max. speed:	Resolution 0.02 mm: 14.5 m/s; resolution 0.005 mm: 3.5 m/s
Input frequency of the evaluation electronics:	min. 250 kHz
Output signal:	inverted
Reference signal:	index periodical
Power consumption :	max. 70 mA
Output signals:	A, A, B, B, I, I,
Gap sensor / magnetic band:	0.1 ... 2.0 mm, reference signal
Adjusting tolerance:	lateral offset: $\pm 1 \text{ mm}$; angle offset $\pm 3^\circ$
System accuracy:	$\pm (0.025 + 0.01 \times L) \text{ mm}$, length L in [m], at T = 20 $^\circ\text{C}$
Repeat accuracy:	± 1 increment
Interference protection class:	3, to IEC 801
Humidity:	100 % rF, condensation permissible
Temperature ranges:	working temperature: $-10 \dots +70 \text{ }^\circ\text{C}$ storage temperature: $-30 \dots +80 \text{ }^\circ\text{C}$
Protection class:	IP 67 according to DIN 40050 (housing)
Housing:	A - plastic, black
Cable:	PUR 8x0,1 mm ² shielded, may be used in trailing cable installations

* For Line driver (RS422) output terminal resistance are to be used $\geq 470 \text{ Ohm}$ to prevent thermal stress

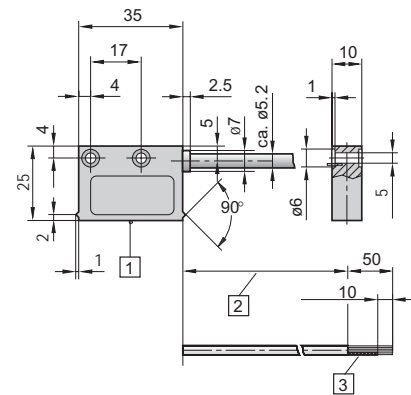
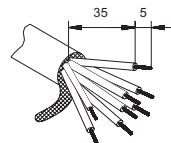
Technical data magnetic band B2:

Pole gap	5 mm from pole to pole
Dimensions:	Width 10 mm; Thickness: 1.7 mm incl. masking tape
Temperature coefficient:	$(11 \pm 1) \times 10^{-6} / \text{K}$
Temperature ranges:	working temperature: $-20 \dots +70 \text{ }^\circ\text{C}$ storage temperature: $-40 \dots +70 \text{ }^\circ\text{C}$
Mounting:	adhesive joint
Measuring:	0.1 m (to receive an optimal result of measurement, the magnetic band should be ca 0.1 m longer than the desired measuring length)
Bending radius:	min. 50 mm

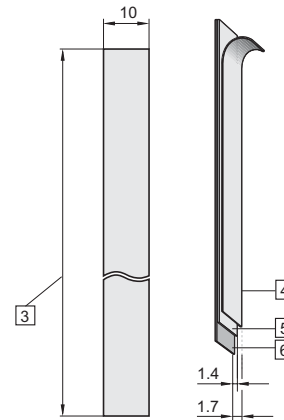


- 9] periodic index signal (all 5 mm)
The logical allocation A, B und I-signal can change
- 8] pulse interval

Connection:



- 1] active measuring surface
- 2] cable lengths
- 3] braided screen, twisted and tinned



- 3] length L, max. 90 m
- 4] masking tape
- 5] magnetic band
- 6] carrier band

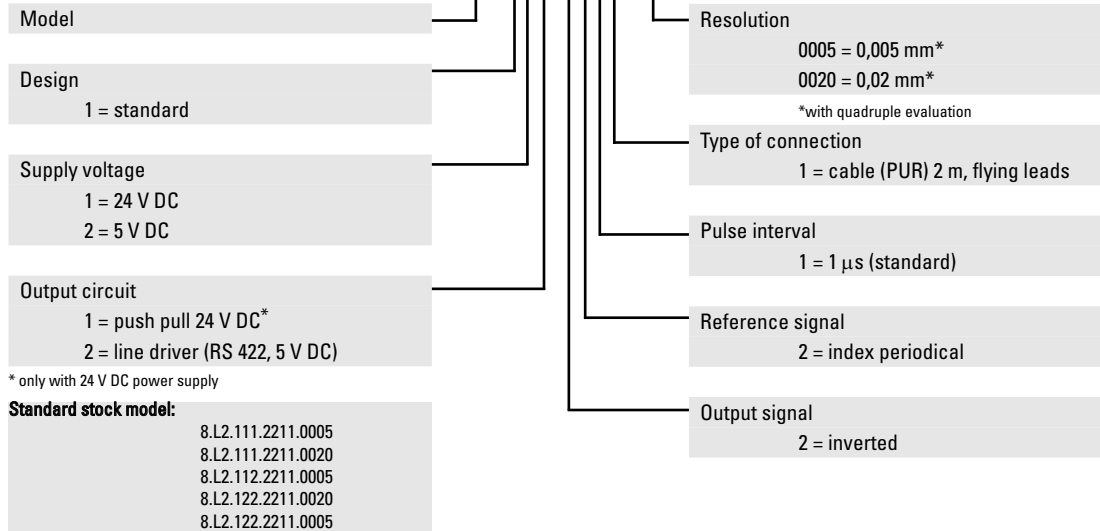
Inverted signal with index signal

Signal	Colour
GND	black
U_B	brown
A	red
B	orange
A	yellow
B	green
I	blue
I	violet

Linear measuring system **LIMES L2**

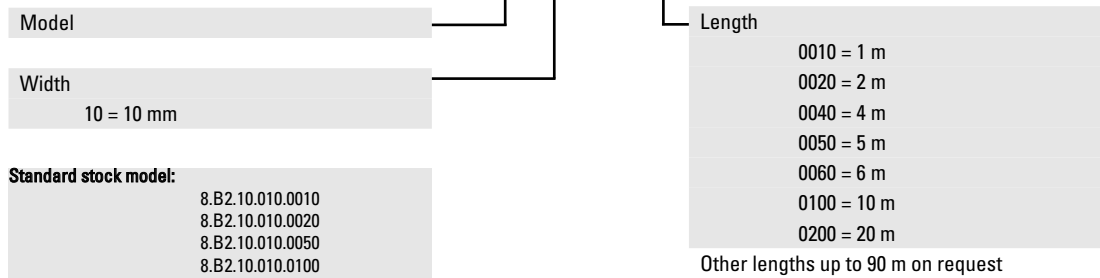
Order code magnetic sensor **LIMES L2**:

8.L2.1XX.2211.00XX



Order code magnetic band **LIMES B2**:

8.B2.10.010.XXXX



Our **LIMES** measuring system in operation



Note:

The internal conversion module can generate rapid counting pulses whose length is limited by the pulse interval. The follower electronics must be adjusted accordingly. Ask our technical support for more details.

Mini draw wire encoder, incremental



Introduction

Measuring length and position is one of the routine tasks in the manufacture of machinery and plant. Draw wire encoders offer proven cost-effective solutions in such applications. Linear motion is converted to rotary motion using a wire that is drawn out or in from the draw wire mechanism. This rotation is converted into corresponding electrical signals by an encoder or potentiometer connected to the mechanism.

The electrical signals can then be processed by remote displays, counters or controllers. The Kübler also provides an extensive range of displays, counters and controllers..

- Compact
- Measuring length up to 2000 mm
- Robust construction

Mechanical characteristics of the draw-wire encoders:

Measuring range:	up to 2000 mm
Absolute accuracy:	$\pm 0.1\%$ for the whole measuring range
Repetition accuracy	± 0.15 mm per direction of travel
Resolution (incremental):	0.1 mm (standard encoder) with 1000 ppr.
Traversing speed:	max. 800 mm/s
Required force:	approx. 10 N (on wire)
Material:	Housing: reinforced plastic Wire: stainless steel \varnothing 0.45 mm, plastic coated
Weight:	approx. 0.210 kg

Description of the incremental encoder (connected on load side)

- Compensation for temperature and ageing
- Short-circuit protected outputs
- Reverse polarity protected power-supply input
- Push-pull output

Mechanical characteristics:

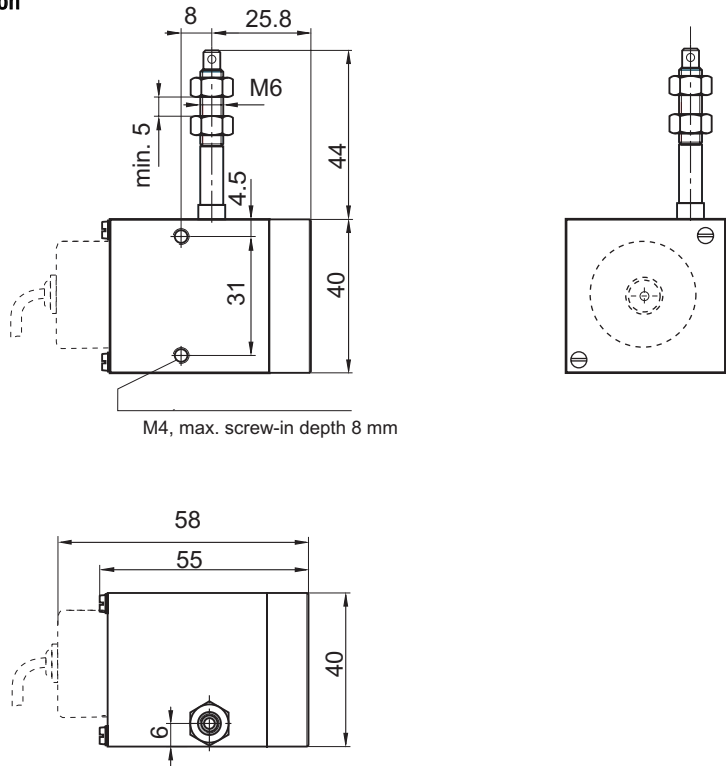
Protection acc. to EN 60529:	IP 64 from housing side
Working temperature:	$-20^{\circ}\text{C} \dots +85^{\circ}\text{C}$
Operating temperature:	$-20^{\circ}\text{C} \dots +90^{\circ}\text{C}$
Shock resistance acc. to DIN-IEC 68-2-27:	1000 m/s ² , 6 ms
Vibration resistance acc. to DIN-IEC 68-2-27:	100 m/s ² , 55 ... 2000 Hz

Electrical characteristics:

Output circuits:	Push-pull	Push-pull
Supply voltage:	5 ... 24 V DC	8 ... 30 V DC
Current consumption (without load):	max. 50 mA	max. 50 mA
Permitted load per channel:	max. 50 mA	max. 50 mA
Pulse rate:	max. 160 kHz	max. 160 kHz
Switching level high:	min. $U_B - 2.5$ V	min. $U_B - 3$ V
Switching level low:	max. 0.5 V	max. 2.5 V
Rise time t_r :	max. 1 μ s	max. 1 μ s
Fall time t_f :	max. 1 μ s	max. 1 μ s
Short-circuit protected outputs:	yes	yes
Conforms to CE requirements acc. to EN 61000-6-1, EN 61000-6-4 and EN 61000-6-3		

Mini draw wire encoder incremental

Dimension



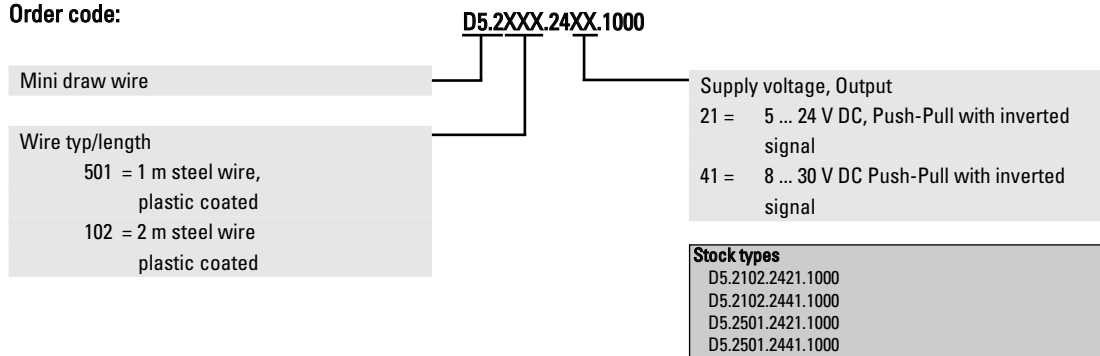
M4, max. screw-in depth 8 mm

Terminal assignment of the encoder:

Signal:	0V	+U _B	A	\bar{A}
Cable colour:	WH	BN	GN	YE
Signal:	B	\bar{B}	0	$\bar{0}$
Cable colour:	GY	PK	BU	RD

Isolate unused outputs before start-up.

Order code:



Mini draw wire encoder, analogue output



- Compact
- Measuring length up to 2000 mm
- Robust construction
- Simple processing of analogue signal by means of a digital panel meter
- Low-cost alternative to encoder version
- Voltage or current output

Mechanical characteristics of the draw-wire encoder:

Measuring range:	up to 2000 mm	
Absolute accuracy:	±0.35 % for the whole measuring range	
Repetition accuracy:	±0.15 mm per direction of travel	
Resolution:	analogue output signal	
	1 m ⇒ 0 ... 10 V DC	2 m ⇒ 0 ... 10 V DC
	1 m ⇒ 4 ... 20 mA	2 m ⇒ 4 ... 20 mA
	1 m ⇒ 0 ... 10 kΩ	2 m ⇒ 0 ... 10 kΩ
Traversing speed:	max. 800 mm/s	
Required force:	approx. 10 N (on wire)	
Material:	Housing: reinforced plastic	
	Wire: stainless steel ø 0.45 mm, plastic coated	
Weight:	approx. 0.210 kg	

Electrical characteristics:

Analogue output:	0 ... 10 V	4 ... 20 mA	Potentiometer 10 kΩ
Supply voltage:	15 ... 28 V DC	15 ... 28 V DC	–
Temperature range:	0 ... 50 °C	0 ... 50 °C	0 ... 50 °C
Load:	max 500 Ω	max 500 Ω	–
Conforms to CE requirements acc. to EN 61000-6-1, EN 61000-6-4 and EN 61000-6-3			

Cable colour output 0 .. 10 V

Signal:	+ 24 V	GND	Uout
Colour:	BN	WH	GN

Cable colour output: 4 ... 20 mA

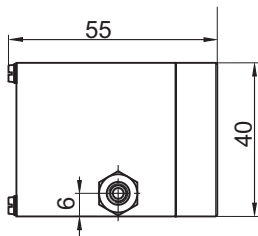
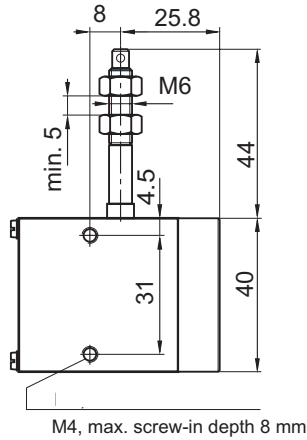
Signal:	+I	-I
Colour:	BN	WH

Cable colour output: Potentiometer

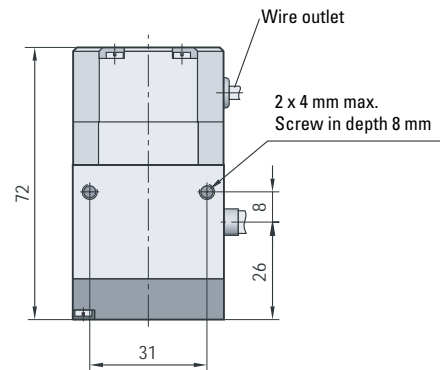
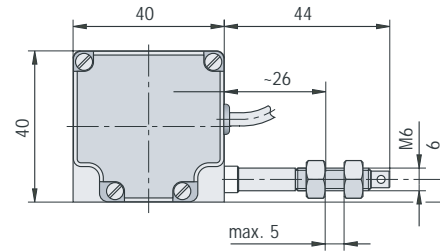
Sign	Po	Pe	S
Colour:	BN	WH	GN
	start	end	Wiper contact

Mini draw wire encoder, analogue output

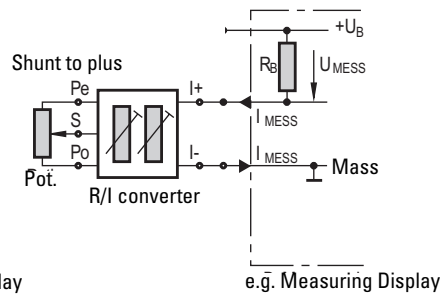
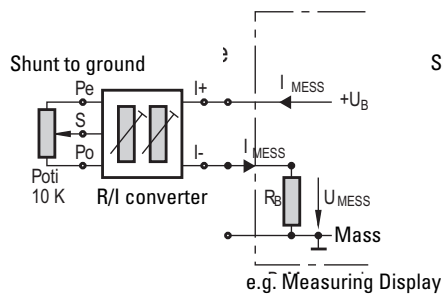
Dimensions:
length = 1 m



Dimensions:
length = 2 m



Electrical connections (4 ... 20 mA):



Order code:

D5.350X.AXX1

Mini draw wire	Supply voltage, Output
Wire typ/length	11 = Analogue output 4 ... 20 mA
3501 = 1 m steel wire, plastic coated	Supply voltage 15 ... 28 V DC
3502 = 2 m steel wire, plastic coated	22 = Analogue output 0 ... 10 V DC
	Supply voltage 15 ... 28 V DC
	33 = Potentiometer output 10 kΩ

Stock types
D5.3501.A111.0000
D5.3501.A221.0000
D5.3501.A331.0000

Draw wire encoder



with shaft encoder type 58xx

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!

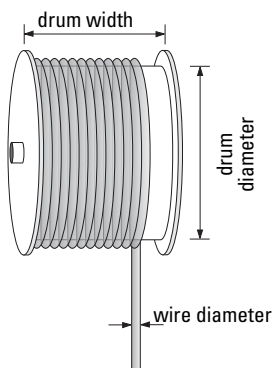
Mechanical characteristics of the wire-draw encoder:

Measuring range:	up to 6000 mm
Repeatability: (if position is always approached from same direction)	~ 0.05 mm
Resolution:	0.1 mm (standard encoder) with 2000 ppr.
Extension length 200 mm:	~ 1 encoder revolution
Travel speed:	max. 3000 mm/s
Required pull on spring:	min. 5 N (on wire)
Wire diameter:	para wire 2,6 m: 1.05 mm steel wire 6 m: 0.54mm
Weight:	approx. 1.050 kg

Note!

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

Construction



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.

Wire:

There are two types of wires available. They are different in dimension, material, surface and their physical characteristics. Para wire and steel wire.

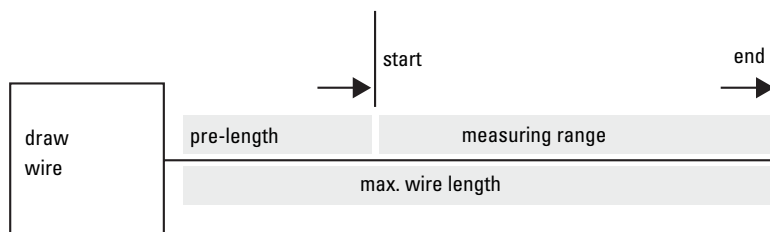
Accuracy/measuring range:

It is guaranteed by the mechanical construction that the wire unwraps evenly on the drum. The dimension of the drum (diameter and width) and the diameter of the wire determine the maximum wire length. The measuring accuracy is only for the first rolled up situation accurately defined. The offered measuring range corresponds exactly to the maximum wire length, which can be rolled up on the first layer.

Order information:

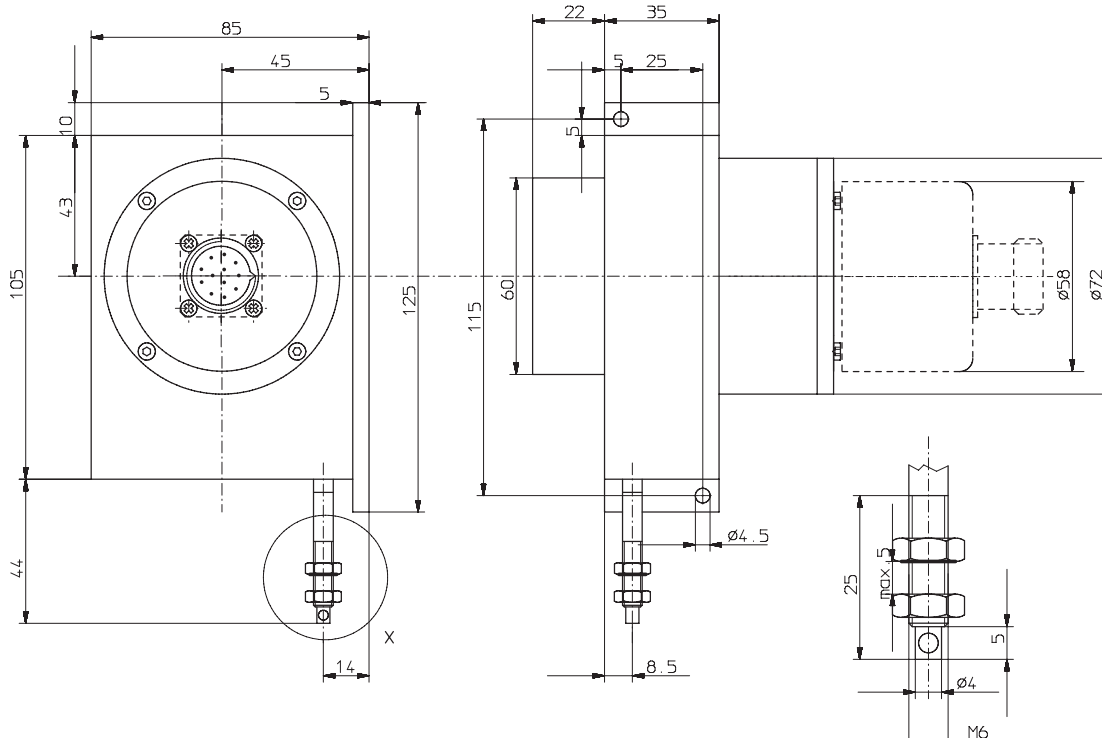
Choose for your application the suitable measuring range with the possible wire variants. Determine the necessary pre-length for your application. The sum of the measuring range and pre-length may not exceed the maximum length.

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



Draw wire encoder

Dimensions:



The following encoders can be mounted:

– **Incremental encoder**

- 8.5800.XXXX.XXXX
- 8.5802.XXXX.XXXX
- 8.5804.XXXX.XXXX
- 8.5805.XXXX.XXXX

– **Absolute multiturn encoder SSI/parallel**

- 8.5861.XXXX.XXXX
- 8.5862.XXXX.XXXX

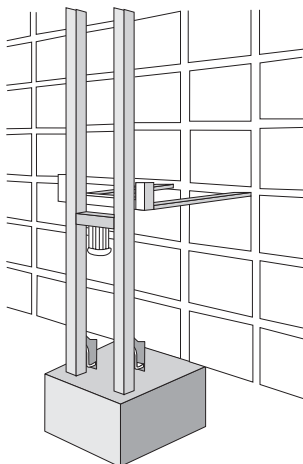
– **Absolute multiturn encoder Profibus-DP**

- 8.5860.XXXX.XXXX

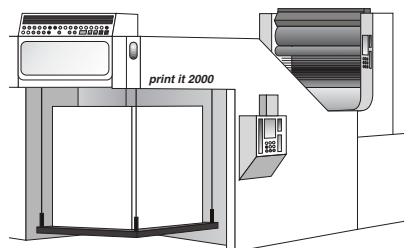
To order a combined unit out of draw wire and a suitable encoder, please use the combination order code represented at the end.

Application examples:

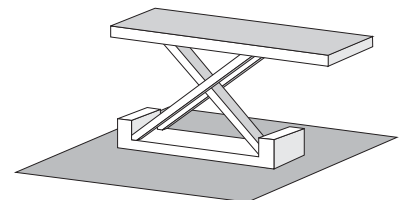
Automated storage / fork lifts



Printing machinery



Scissor lift

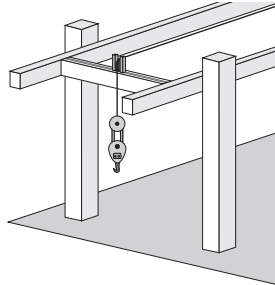
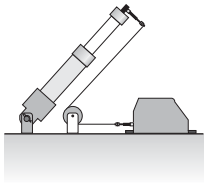


Draw wire encoder

Application examples:

pneumatic/hydraulic application

cranes and material handling



Order code:

Draw wire actuator

Wire

106 = steel wire, 6 m
2A1 = para wire, 2,8 m

D8.1XXX.XXXX.XXXX

Encoder information*

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

Type of connection
these data depends on the
chosen encoder*

Output circuit
these data depends on the
chosen encoder*

Encoder*

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

*The type of encoder and its features the are specified.

The first two numbers describe the type of encoder e.g. 5802.

The further characteristics of the encoder can be defined as per the actual encoder catalogue.

connection should be 1 m axial cable (PVC). The pulse rate will be 2048.

Stock types

D8.1106.0243.2000
D8.1106.0283.2000

D8.12A1.0243.2000
D8.12A1.0283.2000

Order code:

D8.12A1.0241.2048

Pulse rate 2048

Encoder 5802

Date of the draw
wire actuator

Order example:

Draw wire actuator with 2.8 m para wire.
The encoder should be a 5802 with RS 422
(with inverting) and 5 V voltage supply. The

For the encoder order code, please refer to our chapter encoder.

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

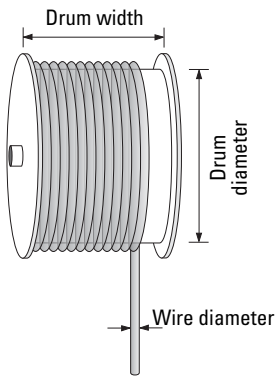
engineering industries. Kübler wire-actuated transducers are an economical and easy to handle solution. Wire-actuated transducers transform linear movements into rotary motion by winding/unwinding a wire. The rotary motion is transmitted to an incremental or absolute encoder. Remote display units or 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:	13 000, 27 000 or 40 000 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: drum diameter = 400 mm. By an encoder with 4096 pulses per resolution: $i = 400/4000 = 0.1 \text{ mm}$
Wire diameter:	1.0 mm
Weight:	at 40000 mm length approx. 9 kg

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

Operating principle:

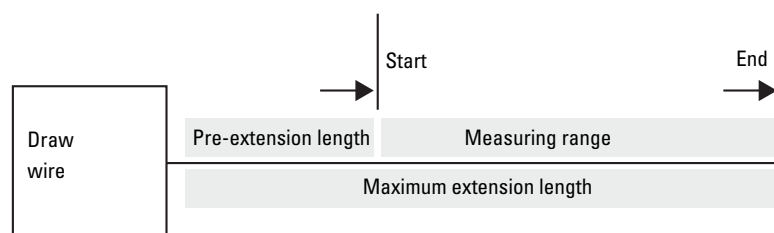


Construction:
 At the core of a wire draw encoder is a drum mounted on bearings, onto which a wire is wound. The winding takes place via a spring-loaded device.

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.

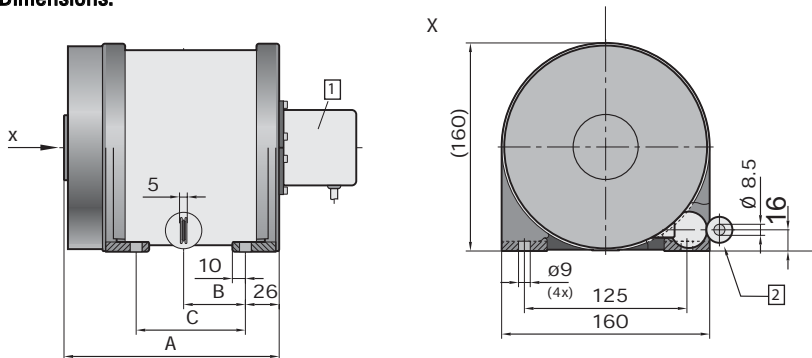
Ordering information:
 Please choose the measuring range suitable for your application, taking into consideration the possible wire variants. Please supply the pre-extension length for your application. When adding the two values 'measuring range' and 'pre-extension length', the maximum extension length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

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

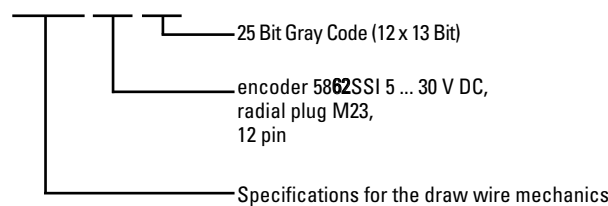
Encoder information*
Resolution/pulses/protocol, these data depend on the chosen encoder*
Type of connection these data depend on the chosen encoder*
Output circuits these data depend on the chosen encoder*
encoder*
00 = 5800 02 = 5802
04 = 5804 05 = 5805
10 = 5810 60 = 5860
62 = 5862

*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 multiturn 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



Order code for draw wire mechanics without encoder:

8.0000.7000.00XX

Range	Measuring length
	37 = 13 500 mm
	38 = 27 000 mm
	39 = 40 000 mm

For best use with synchronous bracket \varnothing 58 mm, shaft- \varnothing 6 mm. Delivery includes mounting kit.

Displacement measuring device



- Complete measuring system as kit or as single parts
- Holding device for encoder for perfect pressure
- With rack and pinion
- 1 turn around of the pinion is exact 50 mm easy to use

Description and application:

The holding device for the encoder (8.0010.7000.0004) is a movable support for encoders, to the shaft of which, for instance, a measuring wheel or pinion can be attached. Due to the fact that it is movable, optimum contact pressure is ensured and overload on the bearings of the encoder prevented. When used in conjunction with a pulse generating unit, the rack and pinion combination (8.0010.7000.0001 and ...0002)

serves as a simple length and displacement measuring system. One rotation of the pinion on the rack corresponds to a displacement of 50 mm. Moreover the racks are designed in such a way that they can be butt-mounted without pitch error. The absolute accuracy is 0.5 mm per meter. The resolution / repetition accuracy is 0.1 mm. Holding device, rack and pinion are available as a set for the purpose of displacement measurement (8.0010.7000.0005).

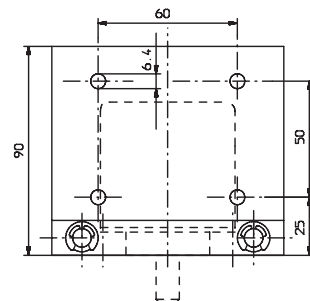
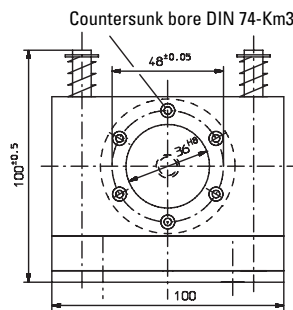
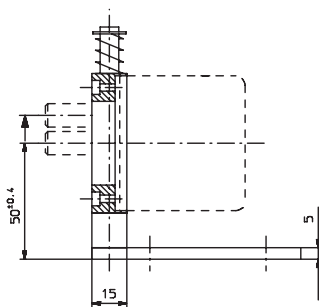
The installation aid (8.0010.7000.0003) is required to maintain exact pitch when buttmounting racks.

Typical areas of application are:

- Wood working industry
- Textile industry
- Handling and automation technology
- Mechanical engineering / Special machines

Holding device for encoders:

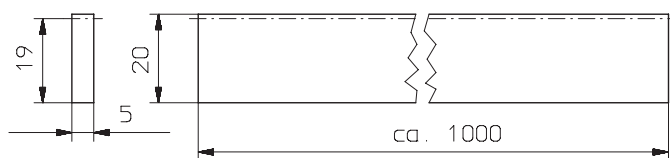
Material:
Guide rods: stainless steel
Bracket: Al



Ord.-No.
8.0010.7000.0004

Rack

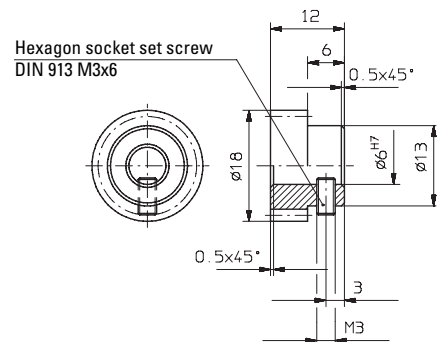
Material: St 37
Surface: uncoated
Module pitch: approx. 1



Ord.-No.
8.0010.7000.0001

Pinion

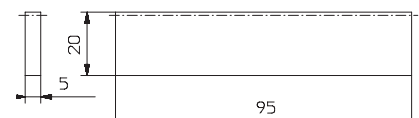
Material: free-cutting steel
Surface: burnished
Module pitch: approx. 1
No of teeth: 16



Ord.-No.
With bore diameter \varnothing 6 mm
8.0010.7000.0002
With bore diameter \varnothing 10 mm
8.0010.7000.0006

Installation aid

Material: St 37
Surface: uncoated
Module pitch: approx. 1

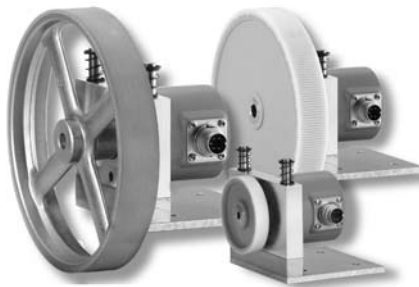


Ord.-No.
8.0010.7000.0003

Linear Measuring Technology

Length measuring kits

Length measuring kits



- Length measuring kit (metric) for length measurement of a measuring object that is moving; a complete solution, which can quickly and easily be implemented!
- Measuring wheels (Hytrel plastic for the textile industry, Vulkollan for the wood, paper, metal and plastics industries).
- Resolution of 1 mm for measuring wheels.
- Because of the encoder holding device, an optimal loading of the encoder shaft on the rack is achieved.
- An additional power supply for the encoder is not required, as the encoder can be powered directly from the preset counter.

Technical data:

Measuring wheels: Circumfer. 0.2 m:	Standard bore 6 mm, measuring width 12 mm, wheel body made of plastic, weight 35 g.
Circumfer. 0.5 m:	Standard bore 10 mm, measuring width 25 mm, wheel body made of plastic (Hytrel) or aluminum (Vulkollan). Weight 260 g (Hytrel), 320 g (Vulkollan).

Encoder holding device:

Bracket 100x100 mm Al,
Guide rod: stainless steel, Countersunk bore DIN74-Km3,

Encoders, cable assembly:

See detailed technical specifications in this catalogue.

Counter:

See catalogue Counting Technology

Ordering information:

6.716.010.000	716 LED preset counter 90-260VAC, 1 preset
8.0000.3291.0010	0.2 m measuring wheel, plastic (Hytrel) corrugated
8.0000.3552.0010	0.5 m measuring wheel, plastic (Vulkollan) smooth
8.0000.3592.0010	0.5 m measuring wheel, plastic (Hytrel) corrugated
8.0000.6201.0003	Cable assembly for measuring wheel-length measuring kit
8.0000.6311.0003	Cable assembly for rack and pinion-length measuring kit
8.0010.7000.0004	Flexible holding device for encoders
8.5802.1275.0200	5802 encoder for 0.2m measuring wheel, 1 mm resolution
8.5802.1275.0500	5802 encoder for 0.5m measuring wheel, 1 mm resolution
8.5810.1145.0500	5810 encoder for rack and pinion, 0.1 mm resolution

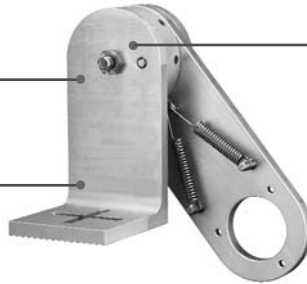
Spring encoder arm

Base plate

- Variable in 4 directions

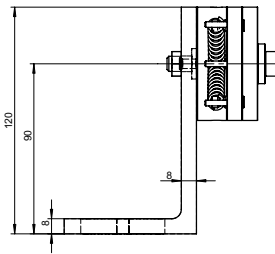
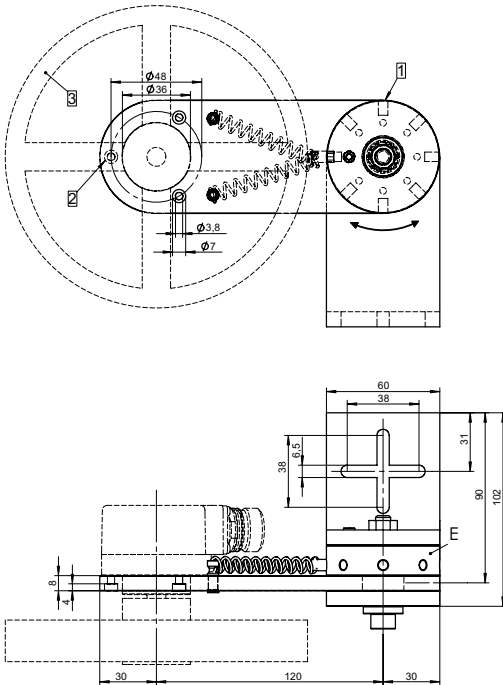
Can be installed in any mounting position

- 9 setting positions in 40° steps



Pressure

- Max. 40 N, adjustable
- Spring pressure available in any position



- 1 Setting with a size 0 or 1 screwdriver
- 2 3 pcs. screws M3 x 8 DIN 912 included
- 3 Measuring wheel

Technical data:

Pressure for each notch: appr. 20 N (first notch between 0 and appr. 20 N)
 Temperature: -40 °C ... + 120 °C

Order code: 8.0010.7000.0010

1/2006

