



### Model Number

ECN21IL-\*

Cable pull

### Features

- Robust aluminum drum housing
- Compact design
- Bellows with steel tip
- Wide range of mounting options
- Up to 5 m of measuring cable
- Rust and acid-resistant measuring cable
- Optionally with guide pulley

### Description

Cable pull with a robust design to suit a wide range of requirements.

## Technical Data

### General specifications

Device type	Industrial Line
Measuring range	2000 ... 5000 mm
Construction type	80 mm, 130 mm

### Functional safety related parameters

B <sub>10d</sub>	300000
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### Ambient conditions

Ambient temperature	-30 ... 70 °C (-22 ... 158 °F)
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### Mechanical specifications

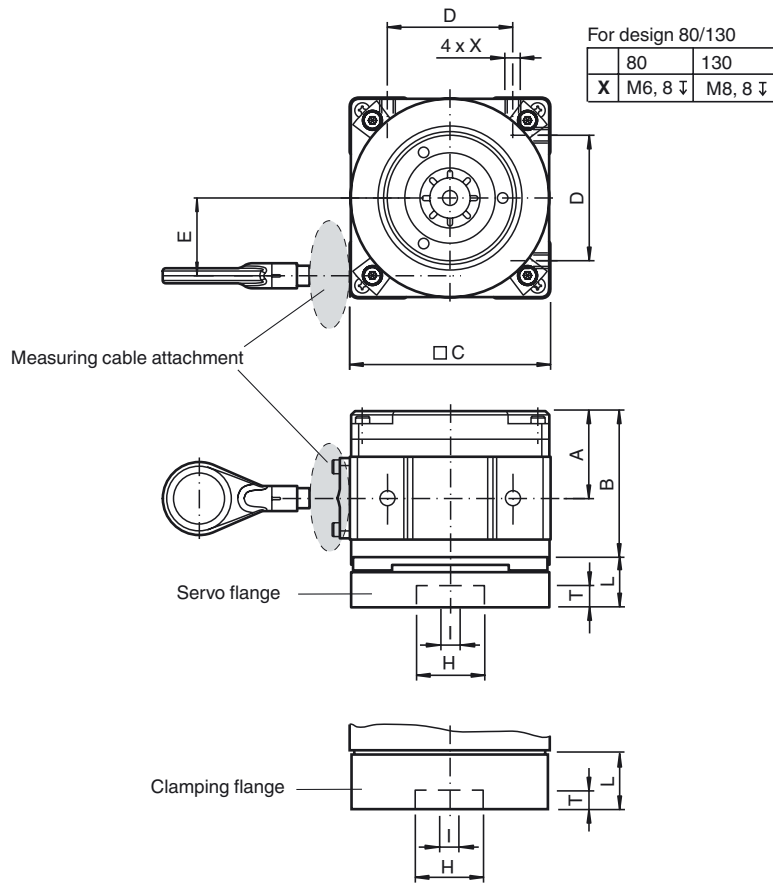
Rope diameter	0.55 mm
Retraction speed	4 m/s
Degree of protection	IP64
Material	
Housing	anodized aluminum
Rope	Stainless steel 1.4401/316
Life span	up to 10 <sup>6</sup> Cycles

### General information

Scope of delivery	Shaft coupling for mounting a rotary encoder depending on the flange type , Mounting clips , bolts for mounting the adapter and a rotary encoder , Sealing elements (various seals for mounting a rotary encoder) , Hexagon socket wrench, 1.3 AF
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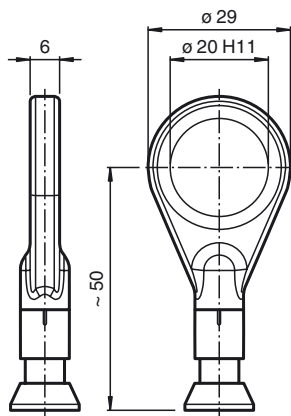
Dimensions

For design 80/130

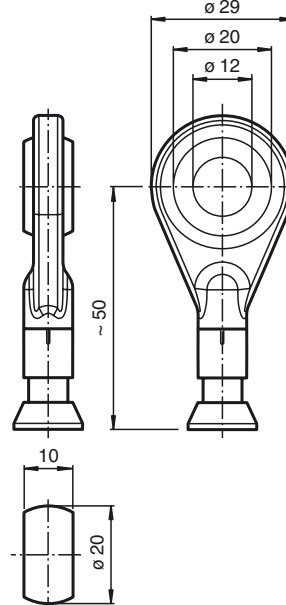


Cable mounts

**A** Brass ring PE

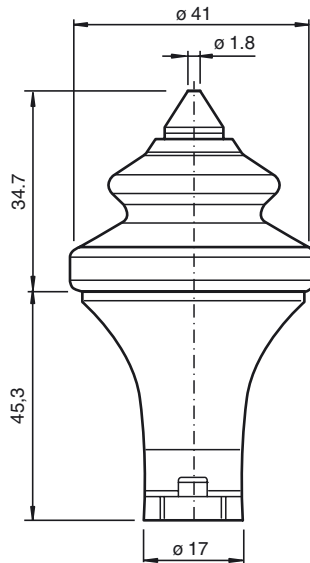


**C** Ball joint

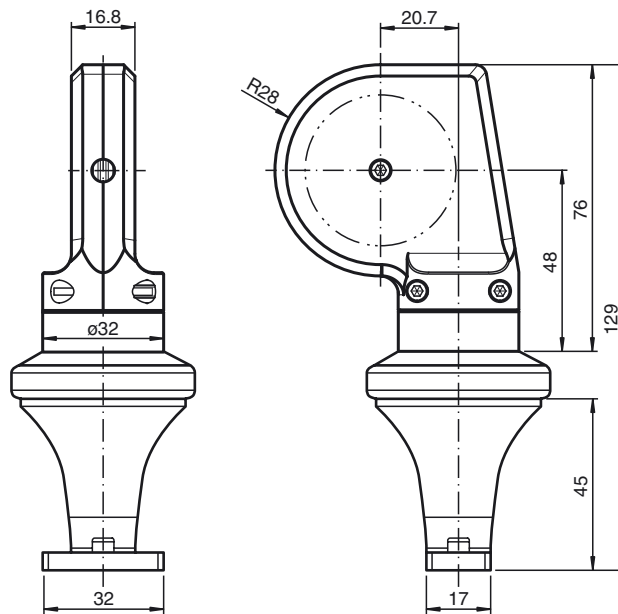


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1 Bellows with steel tip



4 Guide pulley



Variable Data and Dimensions

Technical Data	Design 80		Design 130
Measuring length (in m)	02	03	05
Drum size (incl. cable) (in mm)	200		333.3
Repeatability (max. in mm)	0.2	0.3	0.5
Hysteresis (max. in mm)	1	1.5	1.5
Spring retraction force (in N)	8-14	7-11	15-21
Weight (in kg)	1.3	1.4	2.6
<b>Dimensions (in mm)</b>			
A	34.5	45.5	59.5

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

B	58	69	85.8
C	80		130
D	50		80
E	31		52

**Flange dimensions for adapting rotary encoders**

Design	80	130	80	130	80	130
Flange type	Servo flange				Clamping flange	
Designation	X1		X3		X2	
H (= flange Ø) (in mm)	50		33		36	
Clamping circuit Ø (in mm)	42		26		48	
I (= shaft Ø) (in mm)	6		6		10	
Wavelength (in mm)	10		11.5		20	
<b>Dimensions (in mm)</b>						
Length L	20		24	22	36.8	34.8
Depth D	3.8		3	3	10	10

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**Flange type**

- X1** Servo flange Ø 50 mm/42 mm/3 x M4; shaft Ø 6 mm x 10 mm
- X2** Clamping flange Ø 36/48 mm/3 x M4; shaft; Ø 10 mm x 20 mm
- X3** Servo flange Ø 33 mm/26 mm/4 x M3; shaft Ø 6 mm x 11.5 mm

**Material**

- A** STD anodized aluminum

**Attachment**

- 1** Bellow tight steel tip
- 4** Guide pulley

**Cable mounts**

- A** Ring PE carrier
- C** Ball joint

**Length of measuring cable**

- 02** 2 m
- 03** 3 m
- 05** 5 m

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