



Model Number

ECN10TL-*

Cable pull

Features

- **Solid yet lightweight plastic construction**
- **Compact, slim design (the shaft of the flange-mounted rotary encoder is used to provide the function of the drum bearing)**
- **Coupling-free adaptation**
- **Multitude of mounting possibilities**
- **Rust and acid-resistant measuring cable**
- **Very high level of linearity and repeatability**

Description

Lighter and more solid cable pull rotary encoder with flat housing design.

Technical data

General specifications

| | |
|-------------------|-----------------------|
| Device type | Target Line |
| Measuring range | 3000 ... 10000 mm |
| Construction type | 80 mm, 130 mm, 190 mm |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -30 ... 70 °C (-22 ... 158 °F) |
|---------------------|--------------------------------|

Mechanical specifications

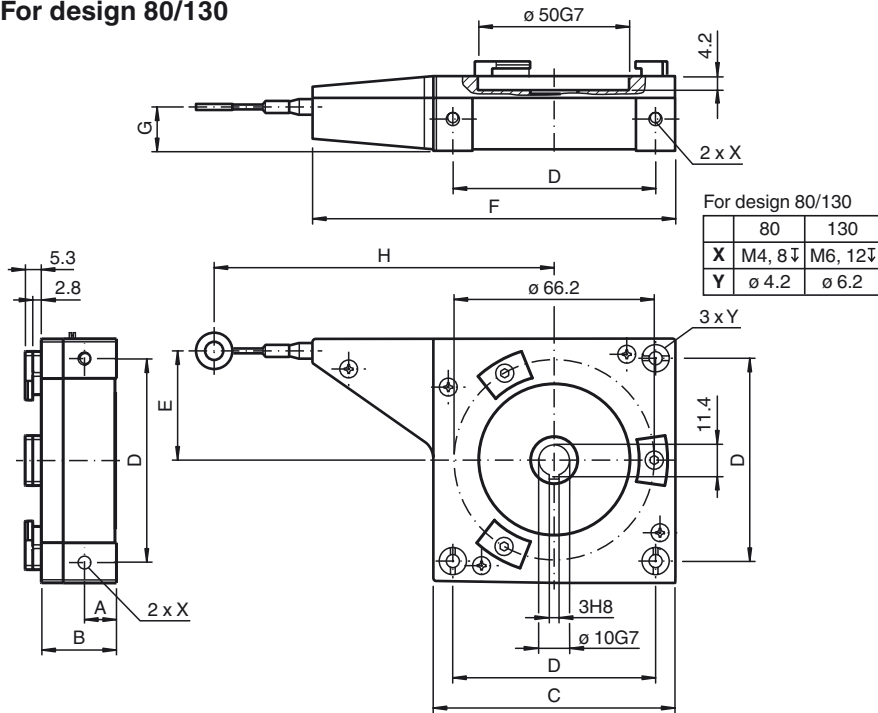
| | |
|----------------------|--|
| Rope diameter | 0.55 mm |
| Degree of protection | IP50 |
| Material | |
| Housing | design 80/130 : Luranyl® or Lexan 920 design 190 : ABS-GF17 |
| Rope | Stainless steel 1.4401/316 |
| Life span | up to 10 ⁶ Cycles |

General information

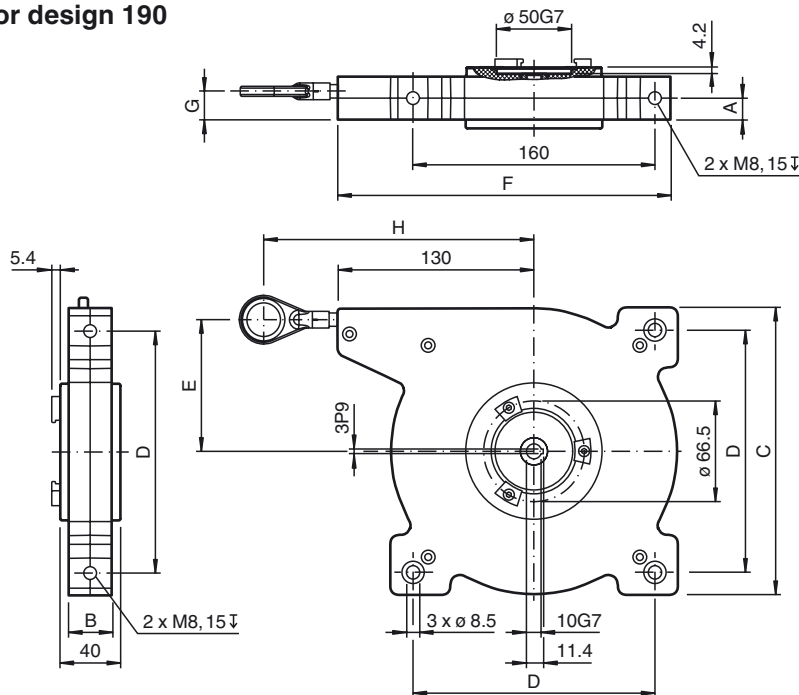
| | |
|-------------------|---|
| Scope of delivery | Shaft adapter for rotary encoder with shaft dimension Ø 6 mm x 10 mm up to 20 mm , adapter flange , Mounting clips , 3 x M4 x 8 bolts for mounting the adapter , Cover disk , Hexagon socket wrench, 1.3 AF |
|-------------------|---|

Dimensions

For design 80/130



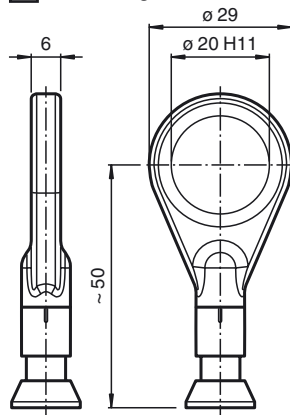
For design 190



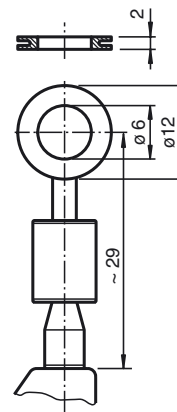
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Cable mounts

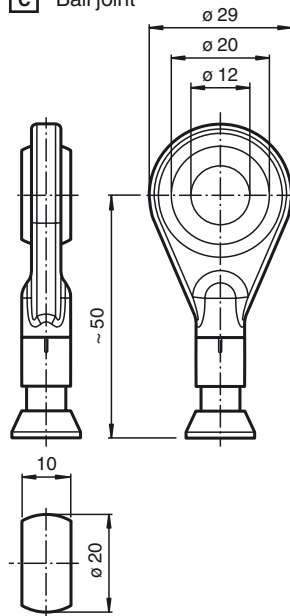
A Brass ring PE



B Ring



C Ball joint



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

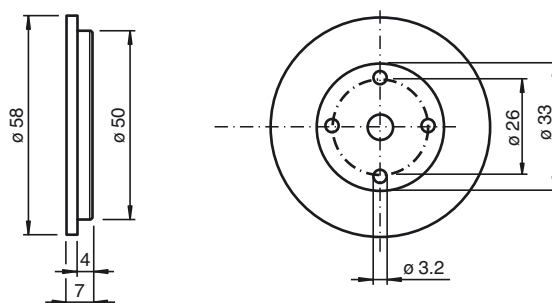
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X3



Variable Data and Dimensions

| Technical Data | Design 80 | Design 130 | Design 190 |
|---------------------------------|-----------|------------|------------|
| Measuring length (in m) | 03 | 05 | 10 |
| Drum size (incl. cable) (in mm) | 230 | 385 | 555 |
| Repeatability (max. in mm) | 0,3 | 0,5 | 1 |
| Hysteresis (max. in mm) | 1,2 | 1,5 | 3 |
| Linearity | ± 0.01% | ± 0.01% | ± 0.01% |
| Retraction speed (in m/s) | 6 | 3 | 4 |
| Spring retraction force (in N) | 5–6.3 | 4.5–7 | 9–12 |
| Weight (in kg) | 0.25 | 0.8 | 1.9 |
| Dimensions (in mm) | | | |
| A | 10.5 | 13 | 14.5 |
| B | 24.7 | 27.2 | 29 |
| C | 80 | 130 | 190 |
| D | 67 | 110 | 160 |
| E | 36 | 61 | 87 |
| F | 120.2 | 186 | 225 |
| G | 14.5 | 17 | 19 |
| H | 106 | 150 | 182 |

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| E | C | N | 1 | 0 | T | L | - | | | | N | P | - | | | : | N | N |
|---|---|---|---|---|---|---|---|--|--|--|---|---|---|--|--|---|---|---|

Flange type

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

Cable mounts

- A** Brass Ring PE (only with 10 m)
- B** Ring
- C** Ball Joint (only with 10 m)

Length of measuring cable

- 03** 3 m
- 05** 5 m
- 10** 10 m