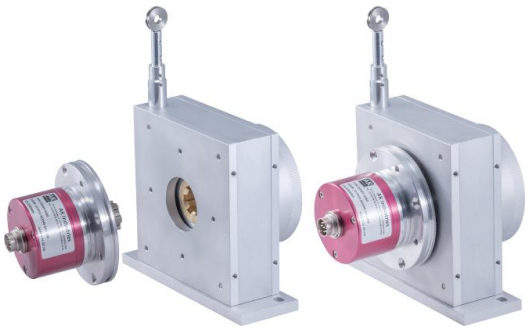
# CD120L-MEC mechanical device - Measurement range 0 up to 3500 mm

**Specifications:**

| | |
|---|---|
| Measurement range | 0 to 3500 mm |
| Drum circumference | 300 mm/turn |
| Sensing device | Mounting with an optical encoder or any other rotary device (consult us) |
| Material | Body and cover - aluminium (RohS)<br>Measuring cable – Stainless steel |
| Cable diameter | 0,60 mm |
| Standard linearity | +/- 0,05% f.s.<br>+/- 0,01% f.s. (optional) |
| Max. Velocity | 10 m/s |
| Max. Acceleration | 7 $m/s^2$ (before cable deformation) |
| Weight | ≈ 2000 g |
| Operating temperature | -20° to +85°C |
| Storage temperature | -30° to +85°C |



**Cable forces:**

| Measurement range in mm | Min. pull-out force | Max. pull-out force |
|---|---|---|
| 3500 | ≈ 13,00 N | ≈ 18,00 N |

**Ordering reference:**

| CD120L | MEC | | | | OP | |
|---|---|---|---|---|---|---|

Model

**CD120L-MEC**

Measurement range

**3500** = 0 up to 3500 mm
**Or any value between 0 and 3500mm**

Drum circumference

**300** = 300 mm/turn

Linearity

**L05** = +/- 0.05% f.s.
**L01** = +/- 0.01% f.s. (optional)

Options **OP**

**10** = Adapter flange for Ø58 encoder with Ø10 axis
**12** = Adapter flange for Ø90 encoder with Ø12 axis
**AC** = Complete anodizing
**BR** = Cleaning brush for the cable
**CP** = Fixing of the measuring cable with a clevis
**M4** = Fixing of the measuring cable with a M4 threaded rod
**TEV** = Water evacuation holes

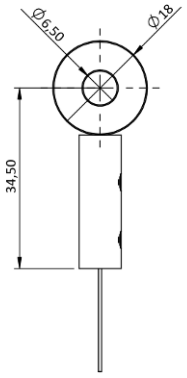
**Reference example: CD120L-MEC-3500-300-L05-OP-10-AC**

**Options :**

**Cable attachment with a lug :**

**Standard**

The attachment lug is fixed with a M6 screw or a clevis.

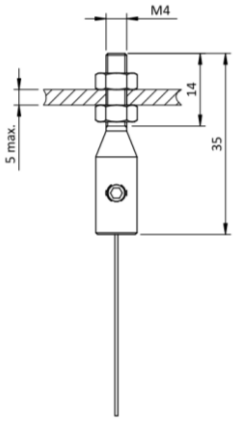



**Cable attachment fitted with a M4 threaded rod:**

**OP-M4**

The rod attachment uses a threaded rod with 2 nuts (provided).
The required thickness of the plate does not exceed 5 mm.

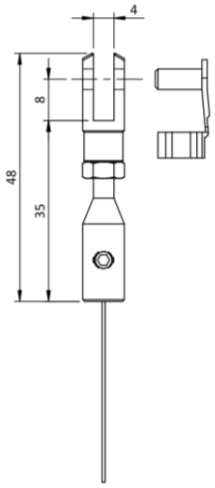
**Caution**
**Never screw the threaded rod into a fixed nut, a twist of the measurement cable would damage it.**




**Cable attachment with a clevis :**

**OP-CP**

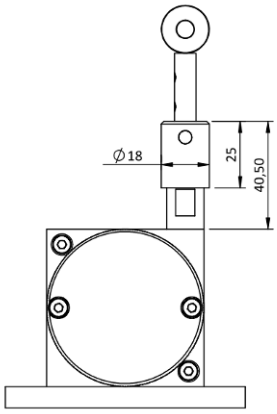
The attachment of the clevis is done using a pin (provided)




**Cable cleaning brush**

**OP-BR**

The cleaning brush wipes the cable in dusty or humid environments

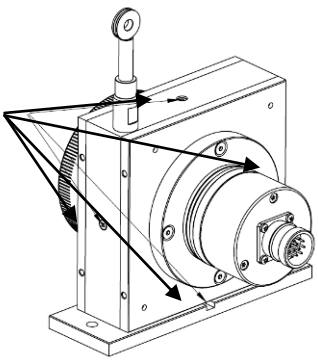



**Water evacuation holes**

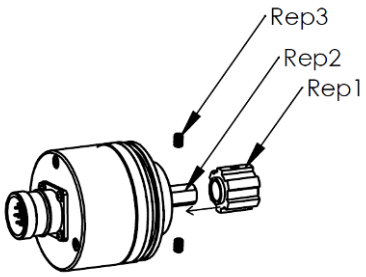
**OP-TEV**

The holes allow the natural flow of fluids out of the sensor in order to avoid their accumulation in the system

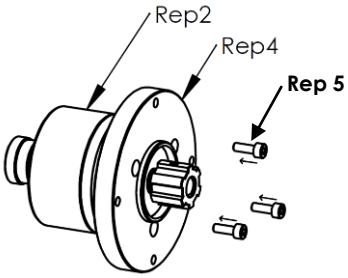
Water evacuation holes
4 M3 screws
Remove the lowest screw to allow
fluid evacuation



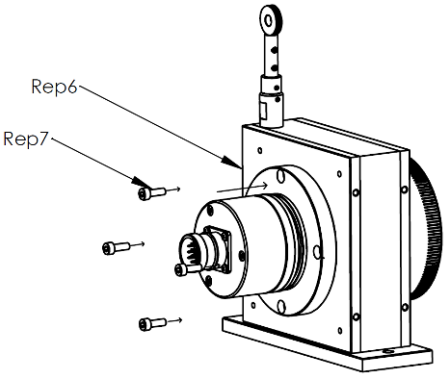
**Encoder mounting instruction**




Slide the splined hub (Rep 1) onto the encoder shaft (Rep 2) and tighten both M4x6 grub screws (Rep 3)



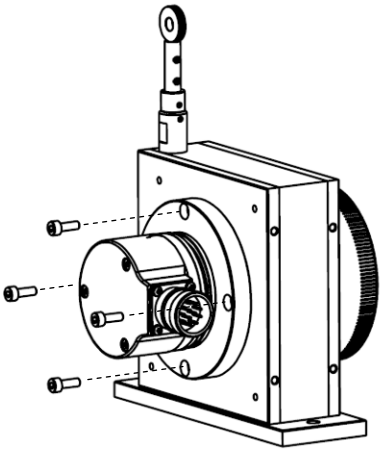

Fix the flange (Rep 4) on the encoder (Rep 2) using the 3 CHC M4x12 screws (Rep 5)

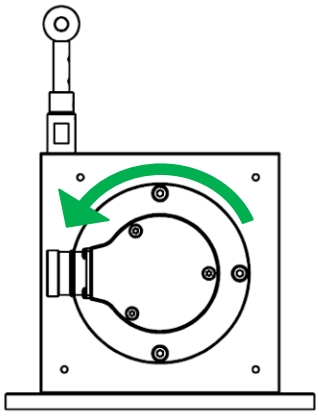



Slide the flange + encoder assembly into the cable sensor groove (Rep 6) and secure with the 4 CHC M4x12 screws (Rep 7).

**Changing the encoder position**

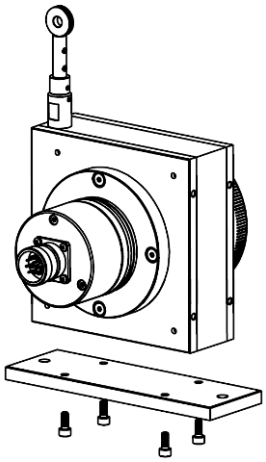
1. Unscrew the 4 CHC M4x12 screws
2. Rotate the encoder by 90° increments
3. Screw the 4 CHC M4x12 screws

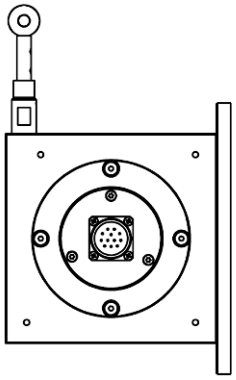




**Changing the base plate position**

1. Unscrew the 4 M4x10 screws holding the base plate
2. Position the base plate on the desired face
3. Fix the base plate using the 4 screws M4x10





**Dimensional drawings**