

# CD30 - COMPACT DRAW WIRE SENSOR – POTENTIOMETRIC OUTPUT

## MEASUREMENT RANGE UP TO 500 MM

### SPECIFICATIONS

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Measurement range     | 150 / 250 / 500 mm                                               |
| Output signal         | Potentiometer 1k $\Omega$ / 10k $\Omega$                         |
| Resolution            | Infinite (depends on the operating system)                       |
| Material              | Body – Aluminum (RohS)<br>Measuring cable – Stainless steel 316L |
| Cable diameter        | 0,45 mm                                                          |
| Detection element     | Precision potentiometer                                          |
| Connection            | Solder terminals (potentiometer)                                 |
| Linearity             | up to +/-0.15% f.s                                               |
| Protection class      | IP50                                                             |
| Max. Velocity         | 10 m/s                                                           |
| Max. Acceleration     | 40 m/s <sup>2</sup> (before cable deformation)                   |
| Weight                | $\approx$ 75 g                                                   |
| Operating temperature | -20° to +80°C                                                    |
| Storage temperature   | -30° to +80°C                                                    |

### CABLE FORCES

| Measurement range in mm | Min. pull-out force | Max. pull out force |
|-------------------------|---------------------|---------------------|
| 150                     | $\approx$ 2,80 N    | $\approx$ 3,00 N    |
| 250                     | $\approx$ 2,70 N    | $\approx$ 3,00 N    |
| 500                     | $\approx$ 2,20 N    | $\approx$ 3,00 N    |

### ORDERING REFERENCE

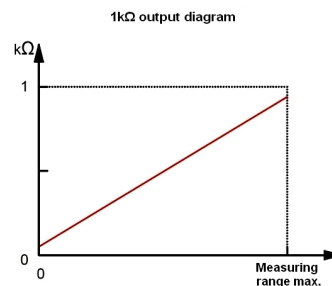
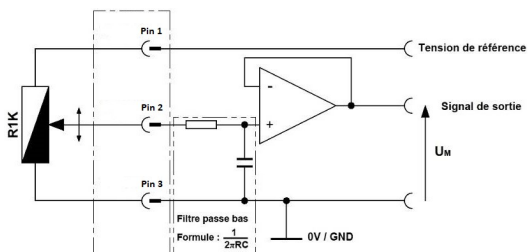
| Model             | CD30                                                                                                                                         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement range | <b>150</b> = 150 mm<br><b>250</b> = 250 mm<br><b>500</b> = 500 mm                                                                            |
| Output signal     | <b>R01K</b> = 1k $\Omega$ output<br><b>R10K</b> = 10k $\Omega$ output<br><i>Other potentiometric values available on demand</i>              |
| Linearity         | <b>L25</b> = +/- 0.25% f.s.<br><b>L15</b> = +/- 0.15% f.s.                                                                                   |
| Fixing system     | <b>01</b> = Fixing by M2.5 side threads<br><b>02</b> = Fixing by flanges<br><b>03</b> = Fixing on long nuts<br><b>04</b> = Fixing by bracket |

### ELECTRICAL CHARACTERISTICS

**Potentiometric version 1 k $\Omega$**  (other values available on demand)

Excitation voltage ..... 32Vdc max. at 1k $\Omega$   
 Temperature drift ..... +/-50 ppm/°C

Example of wiring diagram with input stage:

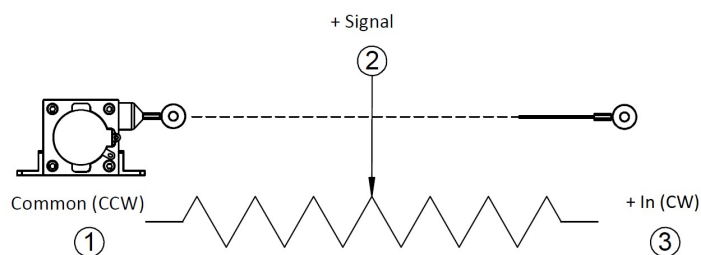
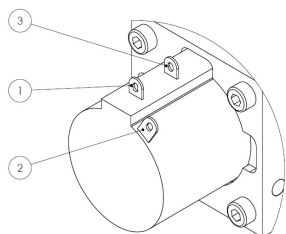


To guarantee good linearity, the potentiometer must be wired as a voltage divider and never as a rheostat.  
 The input resistance of the operating system must be greater than 10M $\Omega$ .



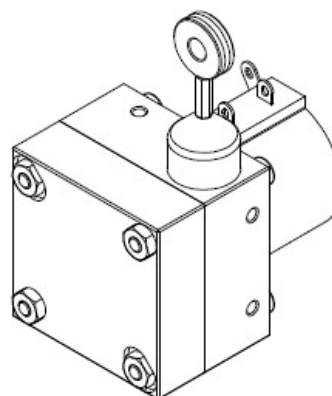
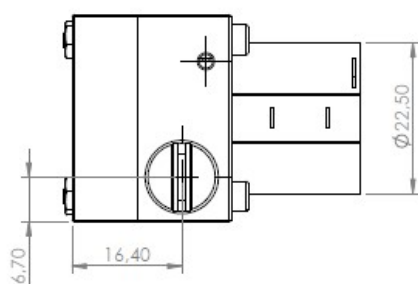
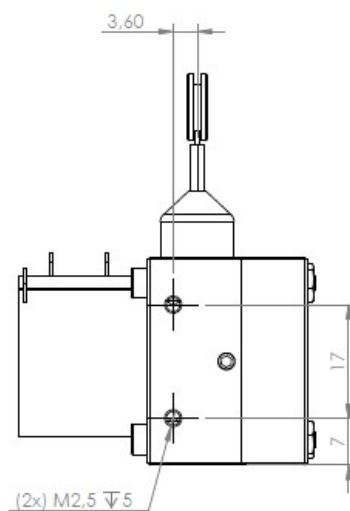
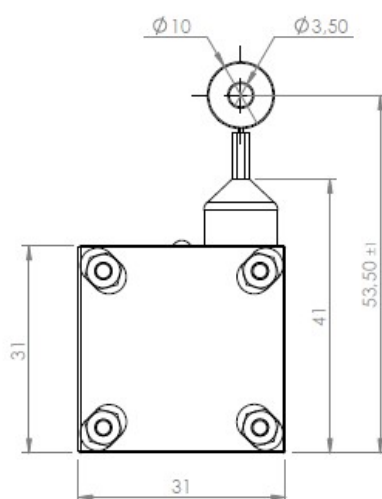
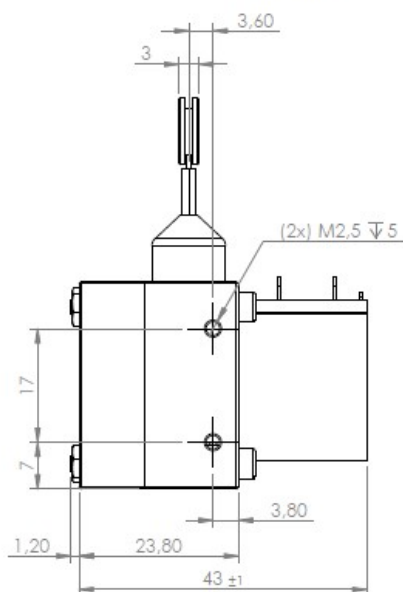
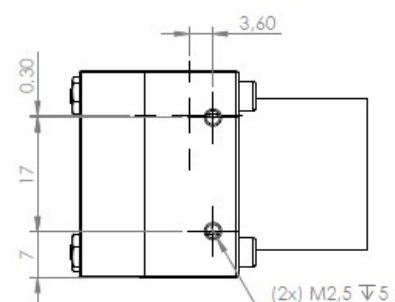
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## CONNECTION



## DIMENSIONAL DRAWING

**Fixing by M2.5 side threads** (order code 01)



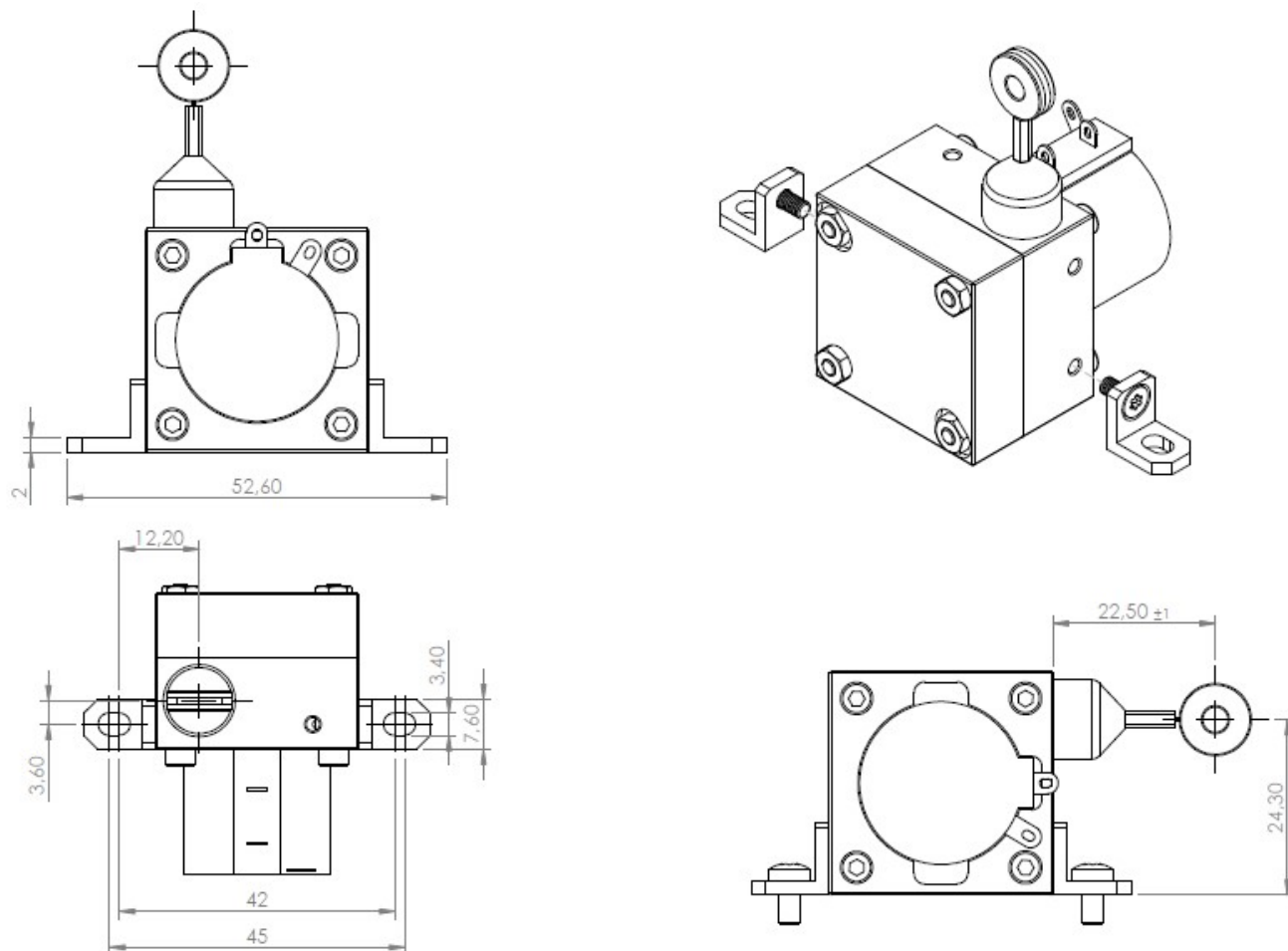
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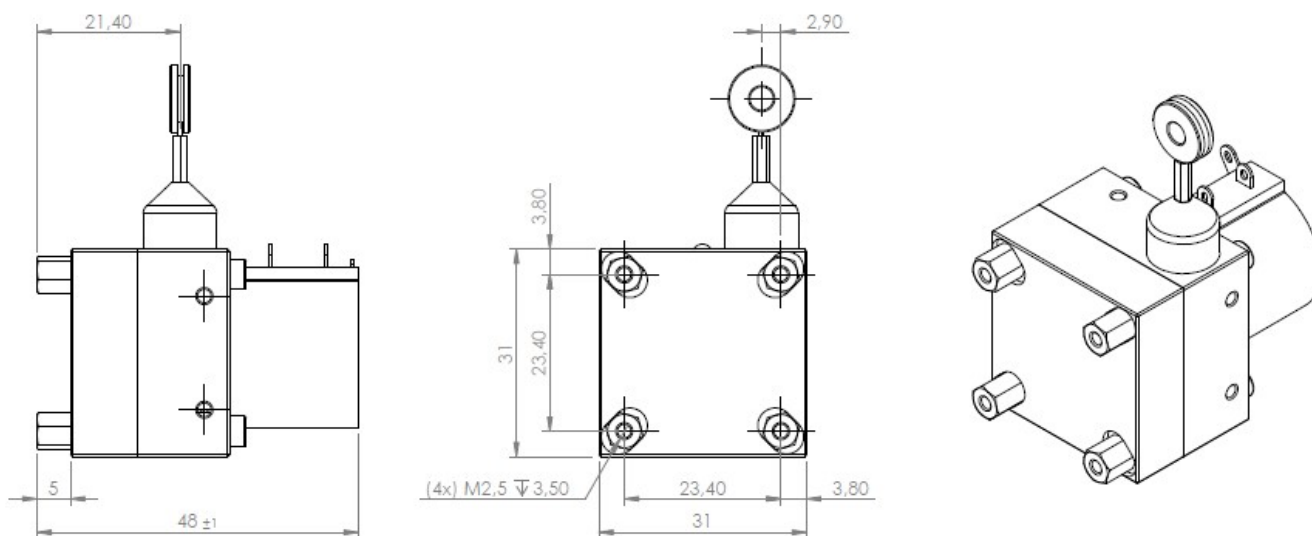
E-Mail: [gl@ak-industries.de](mailto:gl@ak-industries.de)

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**Fixing by flanges** (order code 02)



**Fixing on long nuts** (order code 03)



**Fixing by bracket** (order code 04)

