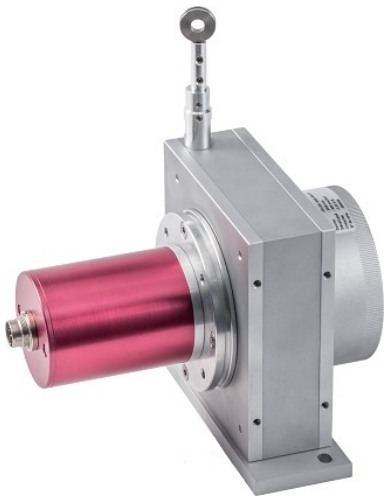
# CD120 – POTENTIOMETRIC OR GAUGE BRIDGE OUTPUT
# MEASUREMENT RANGE UP TO 3000 MM

**Specifications:**

| | |
|---|---|
| Measurement range | 0 up to 3000 mm |
| Output signal | 1kΩ potentiometric output (other values on demand)<br>500Ω gauge bridge output |
| Resolution | Quasi infinite (depends on the operating system) |
| Material | Body and cover - aluminum (RohS)<br>Measuring cable – Stainless steel 316L |
| Cable diameter | 0,60 mm |
| Detection element | Precision potentiometer |
| Connection | Male connector M16 – 3 pins DIN<br>Male connector M12 – 4 pins (A coding)<br>PVC cable |
| Standard linearity | +/- 0,15% f.s.<br>+/- 0,10% f.s. (optional) |
| Protection class | IP54 (option IP67) |
| Max. Velocity | 10 M/S |
| Max. Acceleration | 7 M/S² (before cable deformation) |
| Weight | ≈ 2000 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 |
|---|---|---|
| 3000 | ≈ 13,00 N | ≈ 18,00 N |

**Ordering reference:**

**CD120 – 3000 – R01K – L15 – K02 – OP – xx – xx**

Model
**CD120**

Measurement range
**3000** = 0 to 3000 mm
***Or other ranges between 0 and 3000mm***

Output signal
**R01K** = 1kΩ potentiometric output (other values on demand)
**P05K** = 500 gauge bridge

Linearity
**L15** = +/- 0.15% f.s.
**L10** = +/- 0.10% f.s. (option)

Connection
**C** = Male connector M16 – DIN 3 pins **(version R01K)**
C = Male connector M16 – DIN 8 pins **(version P05K)**
**L4** = Male connector M12 – 4 pins (A coding)
**K** = PVC cable - 8 wires - axial + ex: **02** for cable 2 meters long
***Other connection available on demand***

Options OP
**AC** = Complete anodizing
**BR** = Cleaning brush for the measuring cable
**BT** = Low temperature (down to -30°C)
**CP** = Fixing of the measuring cable with a clevis
**EN** = Measuring cable coated with polyamide *(Measurement range limited to 2500 mm)*
**IP67** = Protection class of electronics IP67
**M4** = Fixing of the measuring cable with a M4 threaded rod
**TEV** = Water evacuation holes

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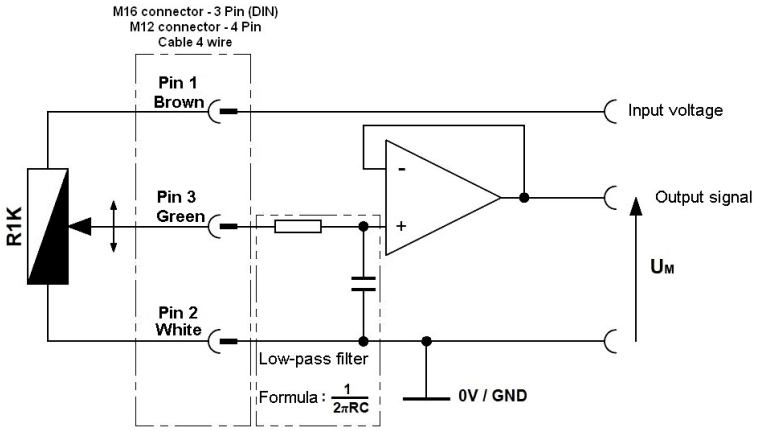
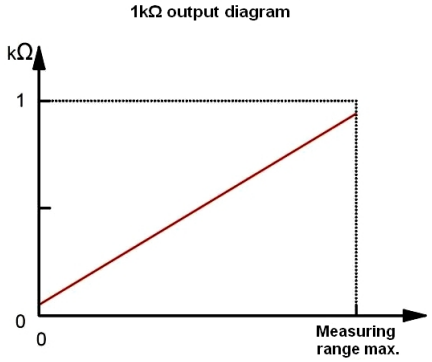
**Electrical characteristics**

**Potentiometric version 1 KΩ :** (other values on demand)

Temperature drift +/-50 ppm/°C

**Example of wiring diagram with input stage :**

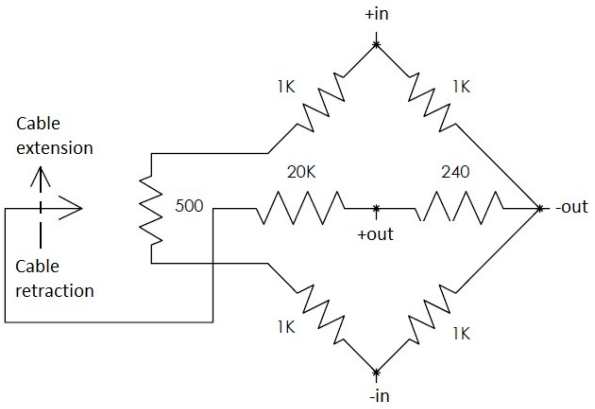


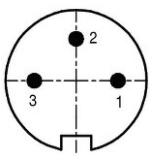
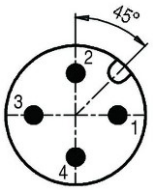
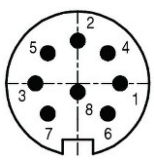

To ensure a good linearity, wire the potentiometer as a voltage divider and never as a rheostat.
The input resistance of the operating system must be very high (greater than 10MΩ)

**Bridge output P05K :**

Impedance of 500Ω
Full scale output : 2mV/V
Zero offset not available
Please consult us for an adjustable version.




**Connection :**

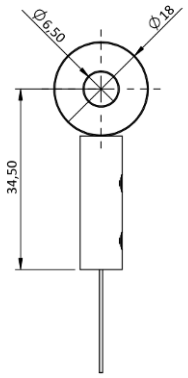
| Male connector M16 3 pins (DIN) R01K only | Male connector M12 4 pins R01K or P05K | Male connector M16 8 pins (DIN) P05K only | PVC cable 4 wires | R01K | P05K |
|---|---|---|---|---|---|
| 1 | 1 | 1 | Brown | Input voltage + | Input voltage + |
| 2 | 2 | 2 | White | Input voltage GND | Input voltage GND |
| 3 | 3 | 3 | Green | Signal + | Signal + |
| / | 4 | 4 | / | / | Signal - |
|  Sensor side view |  Sensor side view |  Sensor side view | | | |

**Options:**

**Cable attachment with a lug :**

**Standard**

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

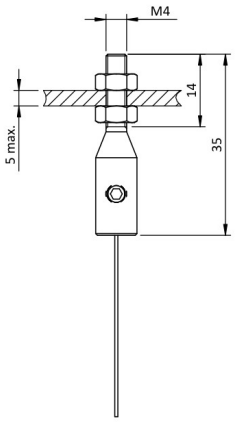



**Cable attachment fitted with a M4 threaded rod:**

**OP-M4**

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

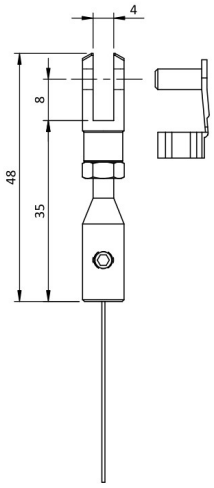
**Caution**
**Never screw the threaded rod into a fixed nut, a twist of the measurement cable would damage it.**




**Cable attachment with a clevis :**

**OP-CP**

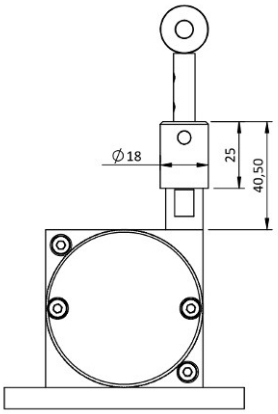
The attachment of the clevis is done using a pin (provided).




**Cable cleaning brush:**

**OP-BR**

The cleaning brush wipes the cable in dusty or humid environments.

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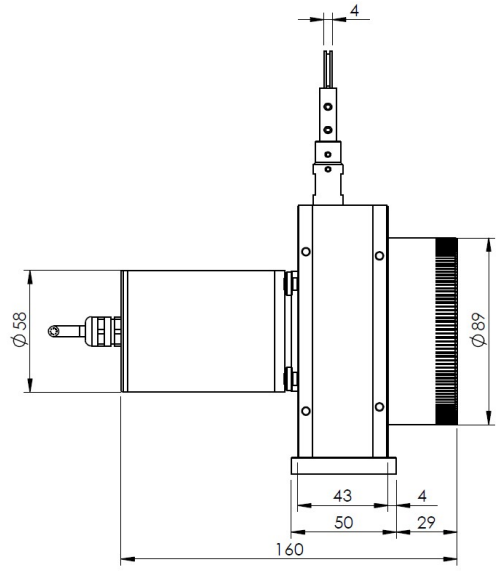
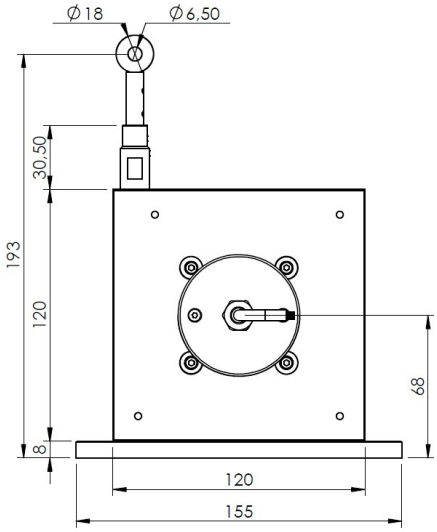
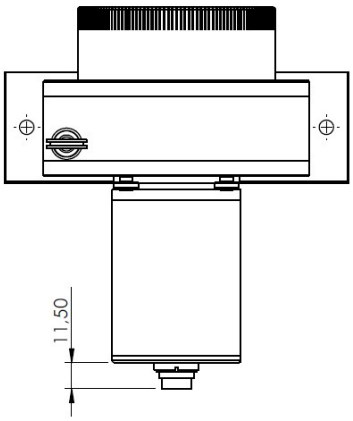
**Dimensional drawing:**

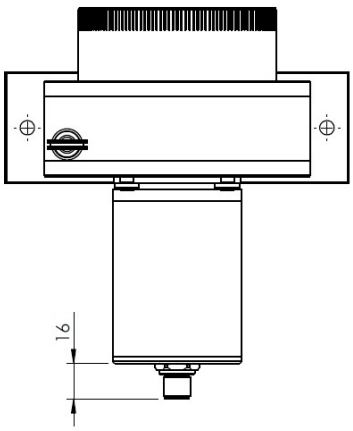



C connection
Connector M16 - 3 pins DIN (R01K version)
Connector M16 - 8 pins DIN (P05K version)




L4 connection
connector M12
4 pins (A coding)




K connection
PVC cable