

CDS1850 potentiometric output – Measurement range 0 up to 50 000 mm

Specifications:

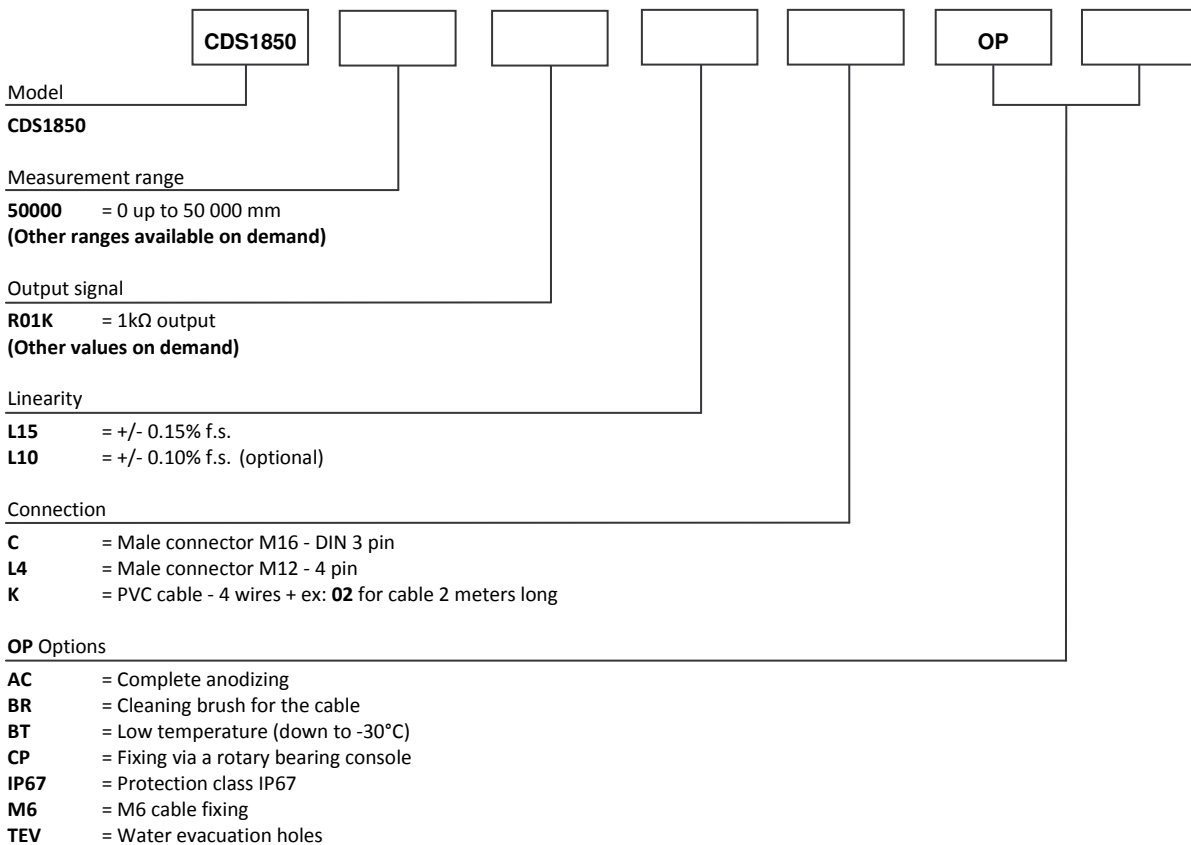
Measurement range	0 up to 50 000 mm
Output signal	1k Ω potentiometer (other values on demand)
Resolution	Quasi infinite (depends on the operating system)
Material	Body and cover - Aluminium (RohS) Measuring cable - Stainless steel
Cable diameter	0,90 mm
Detection element	Multi-turn Hybrid potentiometer
Connection	Male connector M16 - DIN 3 pin Male connector M12 - 4 pin PVC cable - 4 wires
Standard linearity	+/- 0,15% f.s. +/- 0,10% f.s. (optional)
Protection class	IP65
Max. Velocity	10 m/s
Max. Acceleration	1 m/s ² (before cable deformation)
Weight	≈ 23 kg
Operating temperature	-20° to +70°C
Storage temperature	-30° to +100°C



Cable forces:

Measurement range in mm	Min. pull-out force	Max. pull-out force
50 000	≈ 15,00 N	≈ 30,00 N

Ordering reference:



Reference example: CDS1850-50000-R01K-L15-K02-OP-AC-M4



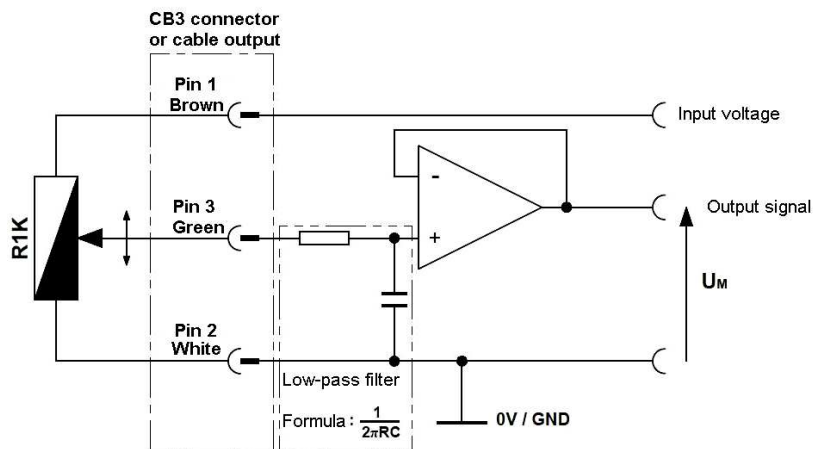
Tel : +33 (0)3 88 02 09 02 / Fax : +33 (0)3 88 02 09 03 / E-mail : info@ak-industries.com / Web : http://www.ak-industries.com

Electrical characteristics :

Potentiometric version 1 KΩ : (other values on demand)

Temperature drift +/-50 ppm/°C

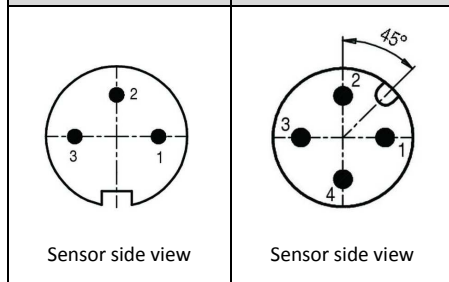
Example of wiring diagram with input stage :



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)

Connection :

3-pin M16 Male connector (DIN)	4-pin M12 Male connector	4-wire PVC cable	R01K
1	1	Brown	Input voltage +
2	2	White	Input voltage GND
3	3	Green	Signal +

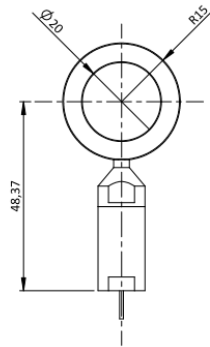


Options:

Cable attachment head:

Standard

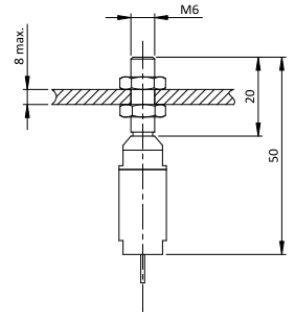
The attachment head is fixed with a M6 screw or a bearing console.



Cable attachment fitted with a M6 threaded rod:

OP-M6

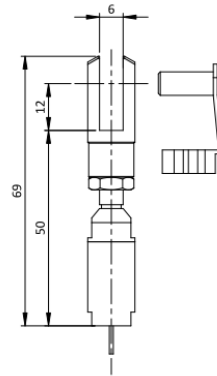
The rod attachment uses a threaded rod with 2 nuts (provided). The required thickness of the plate does not exceed 8 mm.



Fixing via a rotary bearing console :

OP-CP

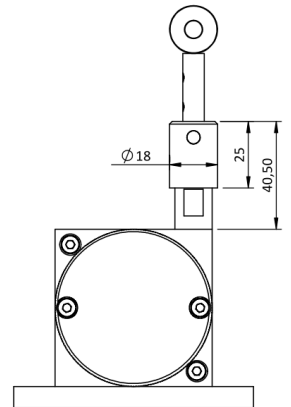
The attachment of the bearing console is done using a pin (provided).



Cleaning brush for the cable:

OP-BR

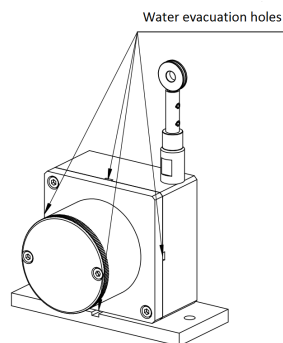
The cleaning brush wipes the cable in dusty or humid environments.



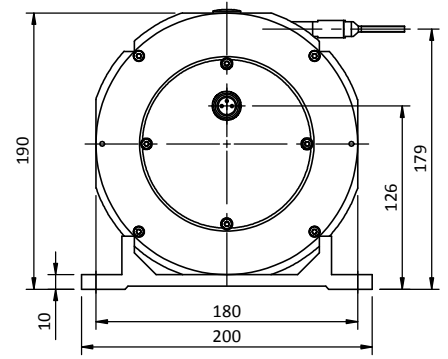
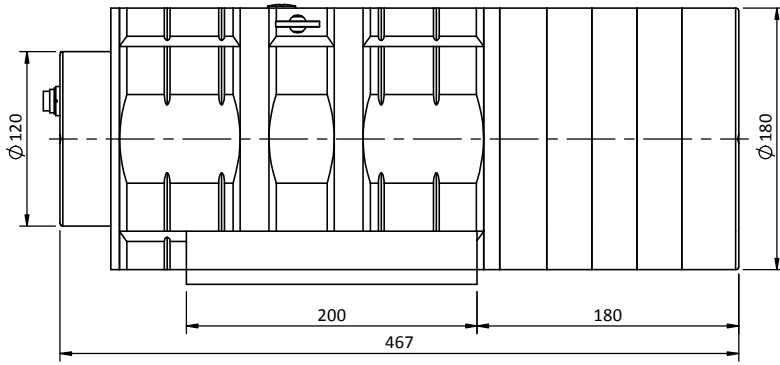
Water evacuation holes:

OP-TEV

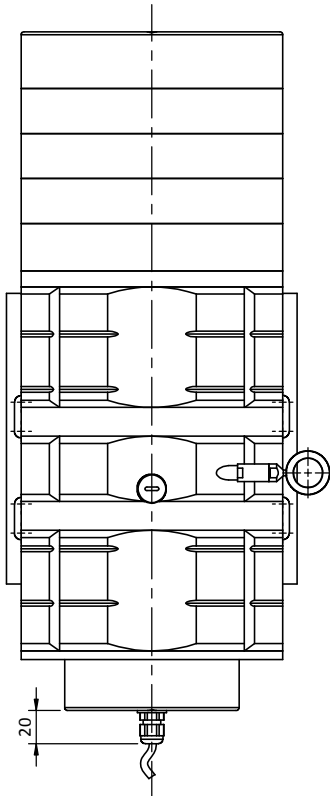
The holes allow the natural flow of fluids out of the sensor in order to avoid their accumulation in the system.



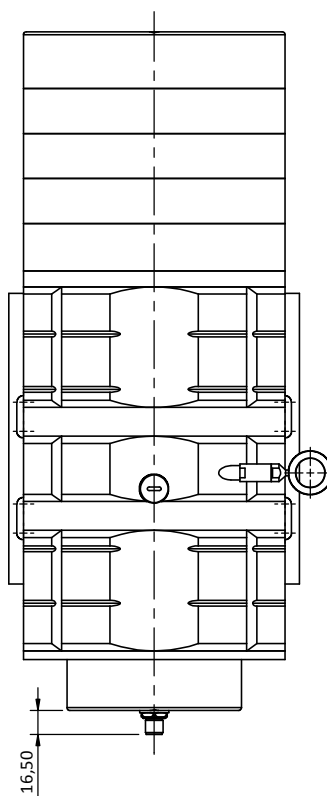
Dimensional Drawing



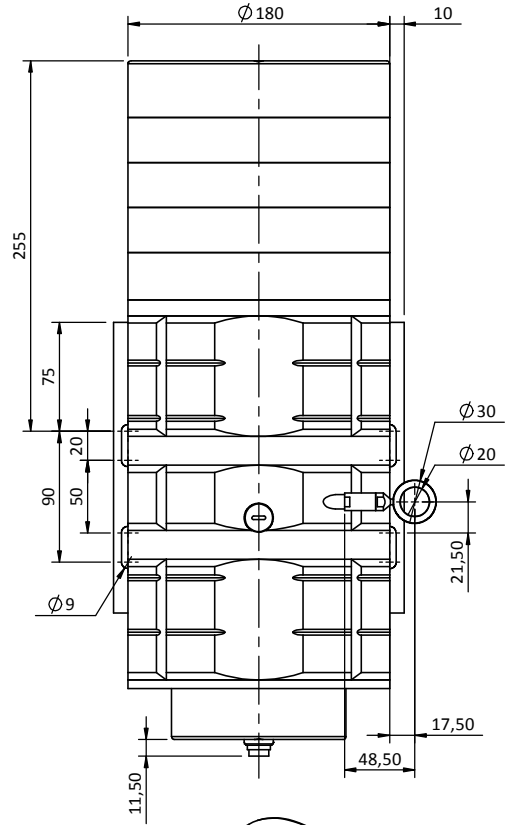
K connection
(PVC cable - 4 wires)



L4 connection
(Connector M12 - 4 pin)



C connection
(Connector M16 - DIN 3 pin)



scalable sole

