

# SC1820 analog output – Measurement range 0 up to 20 000 mm

### Specifications:

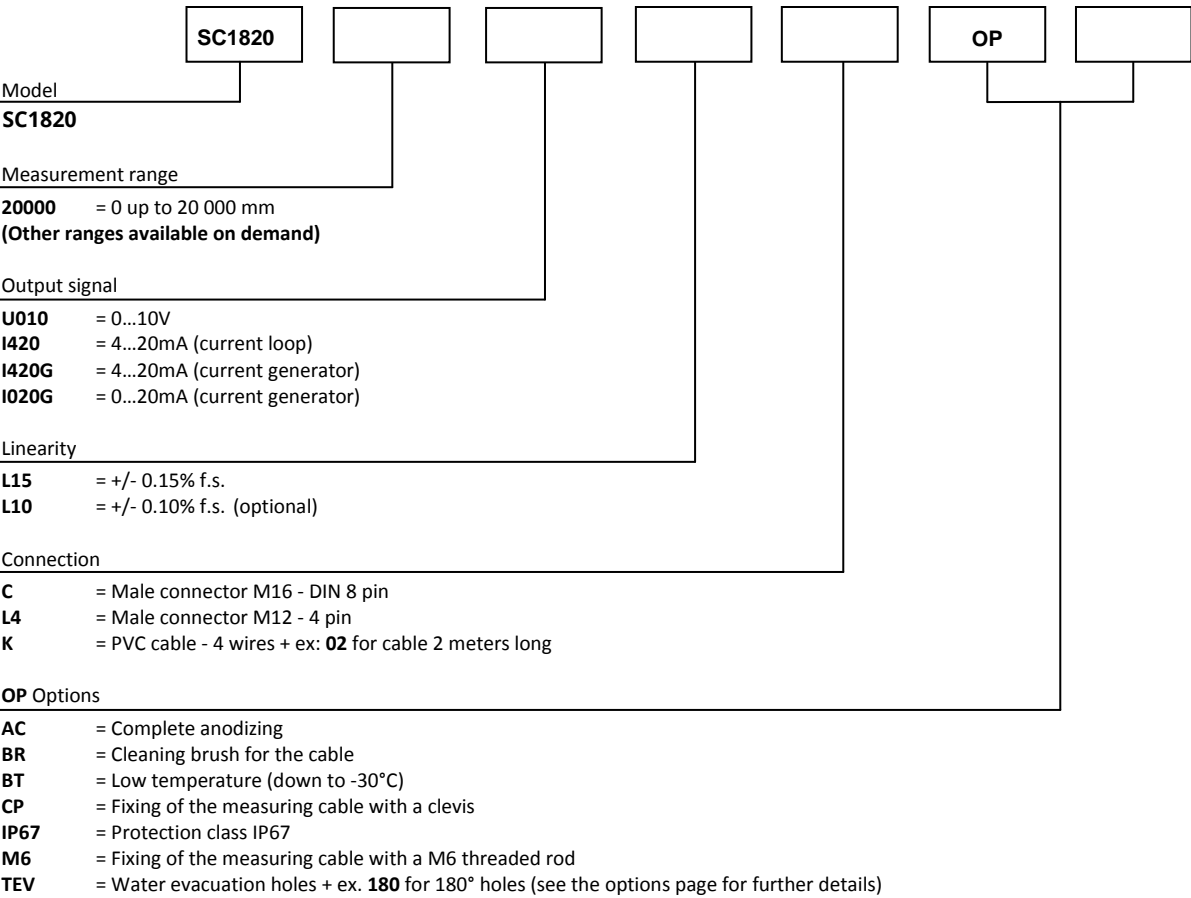
Measurement range	0 up to 20 000 mm
Output signal	0...10V (galvanic isolation) 4...20mA current loop 4...20mA current generator (galvanic isolation) 0...20mA current generator (galvanic isolation)
Resolution	Quasi infinite (depends on the operating system)
Material	Body and cover - aluminium (RohS) Measuring cable - Stainless steel
Cable diameter	0,90 mm
Detection element	Multi-turn Hybrid potentiometer
Connection	Male connector M16 - DIN 8 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	2 m/s <sup>2</sup> (before cable deformation)
Weight	≈ 12 kg
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
20 000	≈ 15,00 N	≈ 30,00 N

### Ordering reference:



Reference example: SC1820-20000-U010-L15-K02-OP-AC-M6



SENSING, S.L

[www.sensores-de-medida.es](http://www.sensores-de-medida.es)

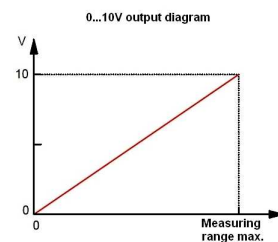
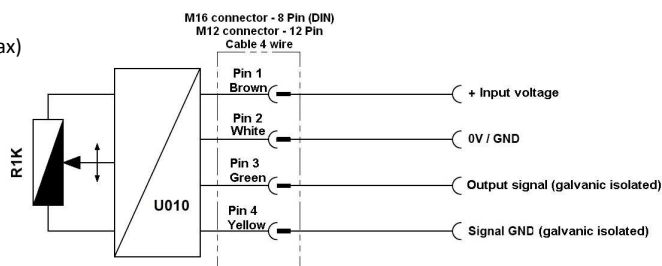
[sensing@sensing.es](mailto:sensing@sensing.es)

+34 91 622 24 38

## Electrical characteristics :

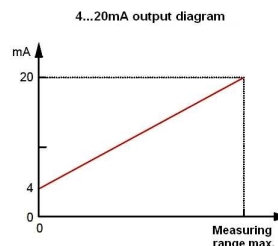
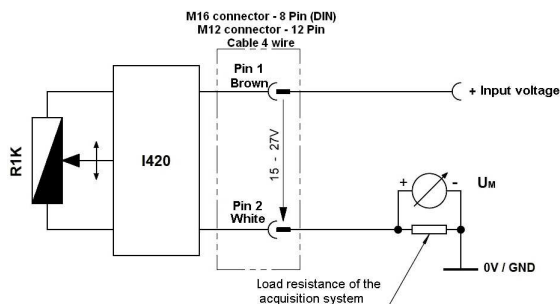
### Analog version 0 ... 10V :

Input voltage	15 to +27 Vdc (52mA max)
Output voltage	0 to 10 Vdc
Output current	10mA max
Galvanic isolation	3KV
Protection	- Short circuit - Polarity reversal
Temperature drift	+/-100 ppm/°C



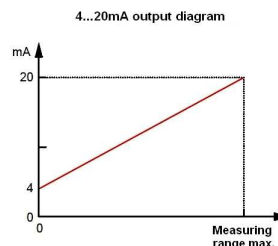
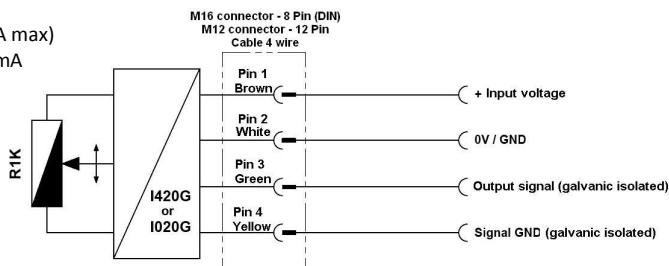
### Analog version 4 ... 20mA : (Current loop)

Input voltage	+15 to +27 Vdc (32mA max)
Output current	4 to 20mA
Protection	- Short circuit - Polarity reversal
Temperature drift	+/-100 ppm/°C



### Analog version 4...20mA or 0...20mA : (Current generator)

Input voltage	+15 to +27 Vdc (75mA max)
Output current	4 to 20mA or 0 to 20mA
Output current	22 mA max.
Galvanic isolation	3KV
Protection	- Short circuit - Polarity reversal
Temperature drift	+/-100 ppm/°C



## Connection :

Male connector M16 8 pin (DIN)	Male connector M12 4 pin (DIN)	PVC cable 4 wire	010V	I420 (current loop)	I420G or I020G (current generator)
1	1	Brown	Input voltage +	Signal +	Input voltage +
2	2	White	Input voltage GND	Signal -	Input voltage GND
3	3	Green	Signal +		Signal +
4	4	Yellow	Signal GND		Signal GND

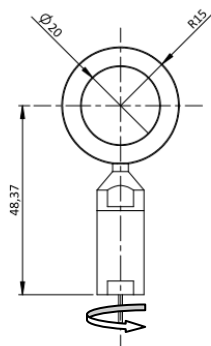
<p>Sensor side view</p>	<p>Sensor side view</p>
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## Options:

### Cable attachment head:

#### Standard

Measuring cable attachment with a lug.  
The attachment mounted on ball bearings allows a free rotation relative to the measurement cable.

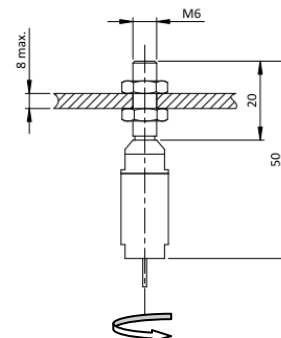


### Cable attachment fitted with a M6 threaded rod:

#### OP-M6

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

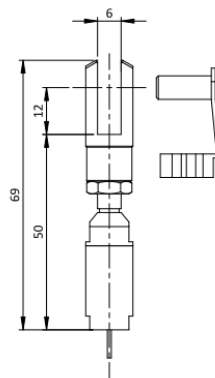
The attachment mounted on ball bearings allows a free rotation relative to the measurement cable.



### Cable attachment with a clevis :

#### OP-CP

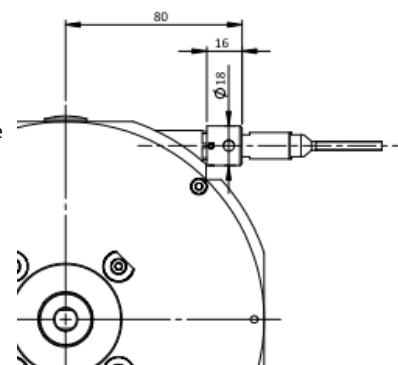
The attachment of the clevis is done using a pin (provided).  
The attachment mounted on ball bearings allows a free rotation relative to the measurement cable.



### Cleaning brush for the cable:

#### OP-BR

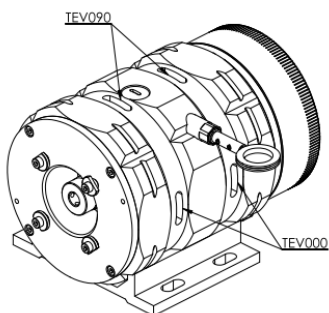
The cleaning brush wipes the cable in dusty or humid environments.



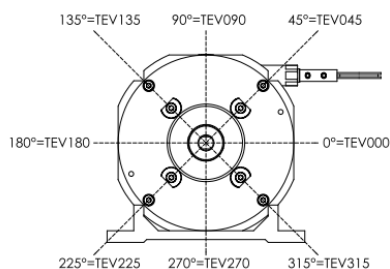
## Water evacuation holes:

### OP-TEV

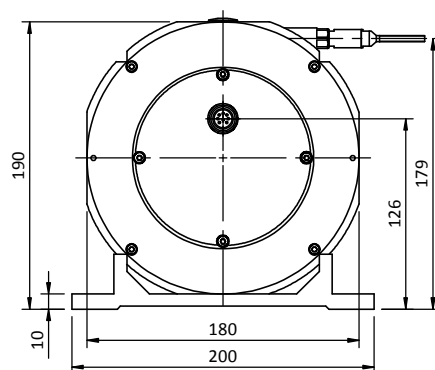
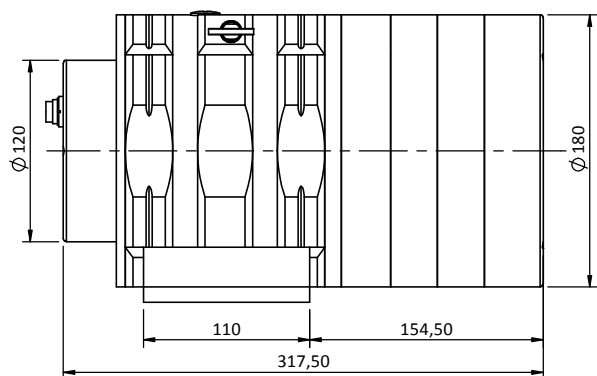
The holes allow the natural flow of fluids out of the sensor in order to avoid their accumulation in the system.



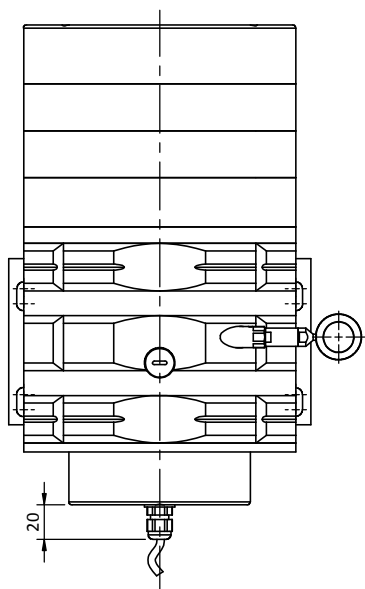
Please specify the implantation angle of the drain holes on the drawing below.  
(All value between 0 and 360°)



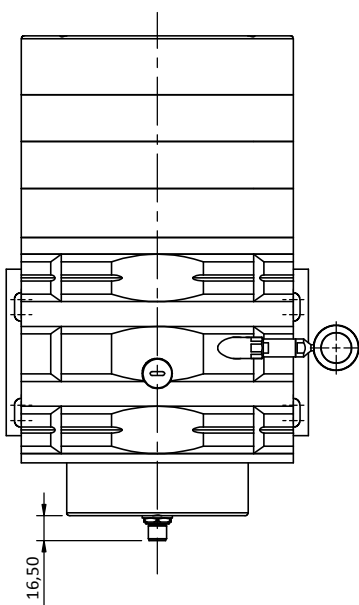
## Dimensional Drawing



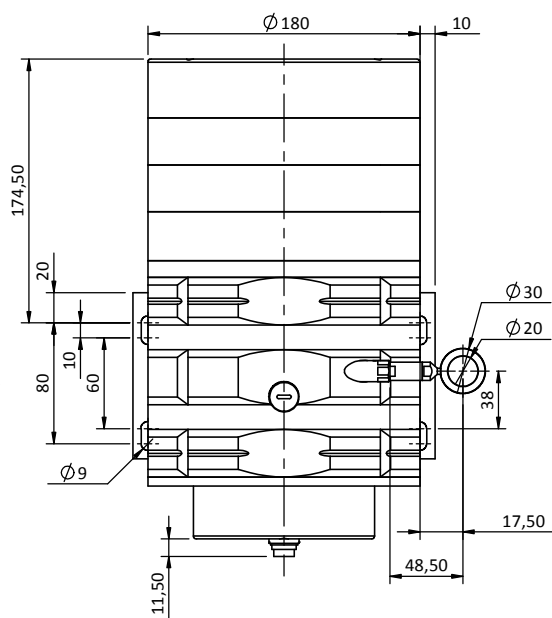
K connection  
(PVC cable - 4 wires)



L4 connection  
(connector M12 - 4 pin)



C connection  
(Connector M16 - DIN 3 pin)



Modular base plate

