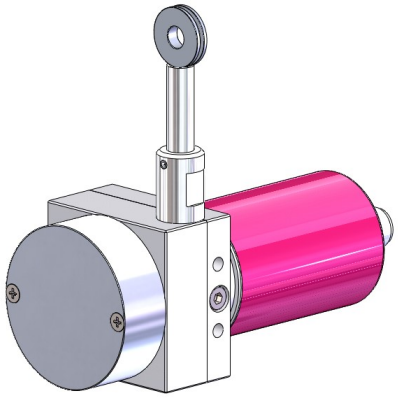
SC50.01 – ANALOG OUTPUT – MEASUREMENT RANGE UP TO 1250 MM

Specifications:

Maximum measuring range	1250 mm
Output signal	0…10V ; 0…5V 4…20mA (2, 3 or 4 wires) 0…20mA (3 or 4 wires)
Resolution	Quasi infinite (depends on the operating system)
Material	Body and cover - Aluminum (RohS) Measuring cable – Stainless steel 316L
Cable diameter	0,51 mm
Detection element	Precision potentiometer
Connection	Male connector M16 – 8 pins DIN Male connector M12 – 4 pins (A coding) PVC cable
Linearity	up to +/-0.10% f.s.
Protection class	IP64 (option IP67)
Max. Velocity	10 M/S
Max. Acceleration	40 M/S^2 (before cable deformation)
Weight	≈ 700 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
50	≈ 6,40 N	≈ 6,50 N
100	≈ 6,30 N	≈ 6,50 N
250	≈ 6,00 N	≈ 6,50 N
500	≈ 5,50 N	≈ 6,50 N
750	≈ 5,00 N	≈ 6,50 N
1000	≈ 4,50 N	≈ 6,50 N
1200	≈ 4,00 N	≈ 6,50 N
1250	≈ 4,00 N	≈ 6,50 N

Ordering reference:

SC50.01 – 1000 – U010 – L15 – K02 – OP – xx – xx

Model

SC50.01

Measurement range

1250 = 0 to 1250 mm

Or other ranges between 0 and 1250mm

Output signal

U010 = 0…10V (galvanic isolation)
U005 = 0…5V (galvanic isolation)
I420 = 4…20mA (current loop – 2 wires)
I420T = 4…20mA (current generator – 3 wires)
I020T = 0…20mA (current generator – 3 wires)
I420G = 4…20mA (current generator – 4 wires)
I020G = 0…20mA (current generator – 4 wires)

Linearity

L25 = +/- 0.25% f.s.(standard for **50mm ≥ Measuring range ≤ 500 mm**)

L15 = +/- 0.15% f.s.(standard for **500mm > Measuring range ≤ 1250 mm**)
(optional for **50mm ≥ Measuring range ≤ 500 mm**)

L10 = +/- 0.10% f.s.(optional for **500mm > Measuring range ≤ 1250 mm**)

Connection

C = Male connector M16 – DIN 8 pins
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

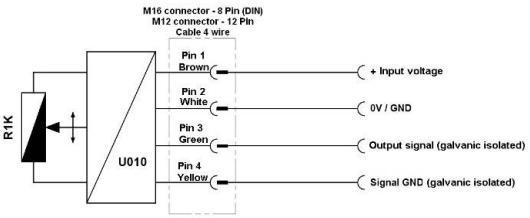
AC = Complete anodizing
BR = Cleaning brush for the measuring cable
BT = Low temperature (down to -30°C)
CP = Fixing of the measuring cable with a clevis
EN = Measuring cable coated with polyamide *(Measurement range limited to 2500 mm)*
IP67 = Protection class of electronics IP67
M4 = Fixing of the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

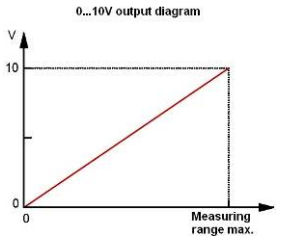
SENSING, S.L www.sensores-de-medida.es sensing@sensing.es +34 91 622 24 38

Electrical characteristics :

Analog version 0 … 10V :

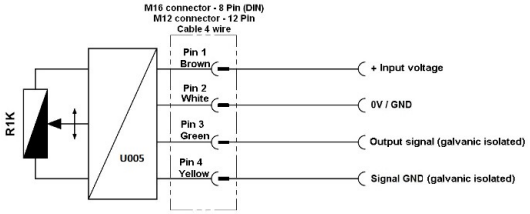
Input voltage	11 … 30Vdc (52mA max)
Output voltage	0 … 10V
Output current	10mA max
Galvanic isolation	3KV
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

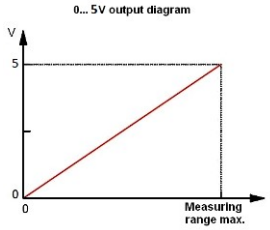




Analog version 0 … 5V :

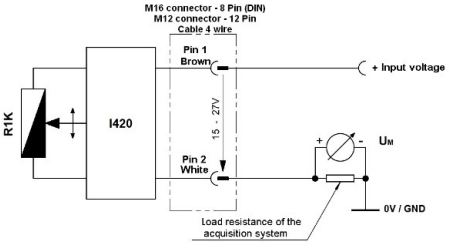
Input voltage	6.5 … 30 Vdc (52mA max)
Output voltage	0 … 5V
Output current	10mA max
Galvanic isolation	3KV
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

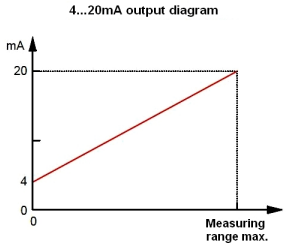




Analog version 4 … 20mA : (Current loop – 2 wires)

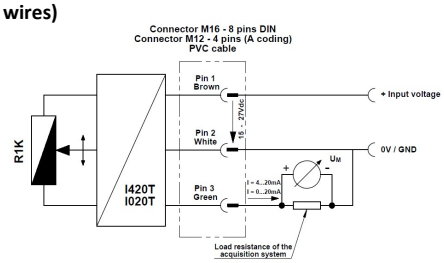
Input voltage	15 … 27 Vdc (32mA max)
Output current	4 … 20mA
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

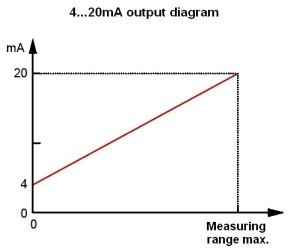




Analog version 4 … 20mA or 0 … 20mA : (Current generator – 3 wires)

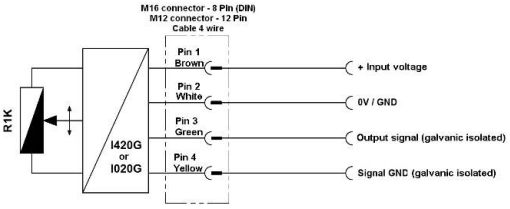
Input voltage	15 … 27 Vdc (32mA max)
Output current	4 … 20mA or 0 … 20mA
Output current	10mA max
Galvanic isolation	3KV
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

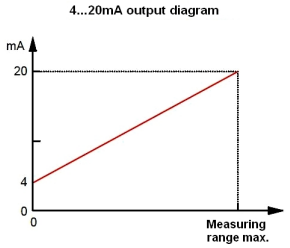




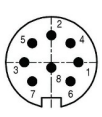
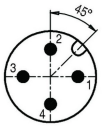
Analog version 4...20mA or 0...20mA : (Current generator – 4 wires)

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

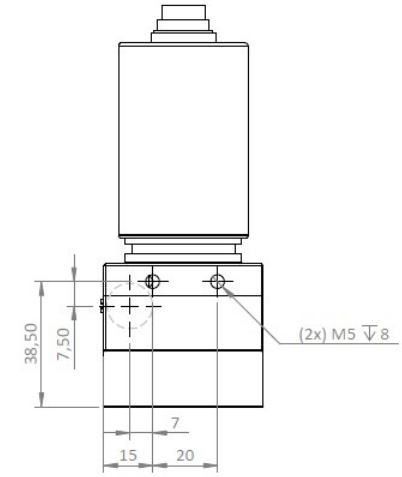


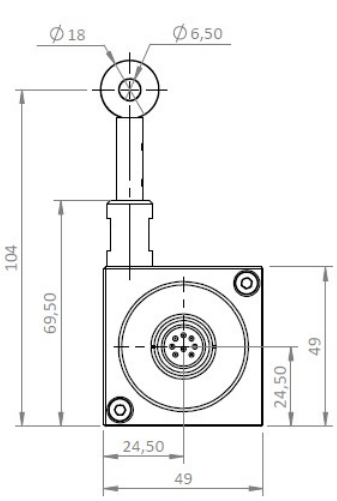


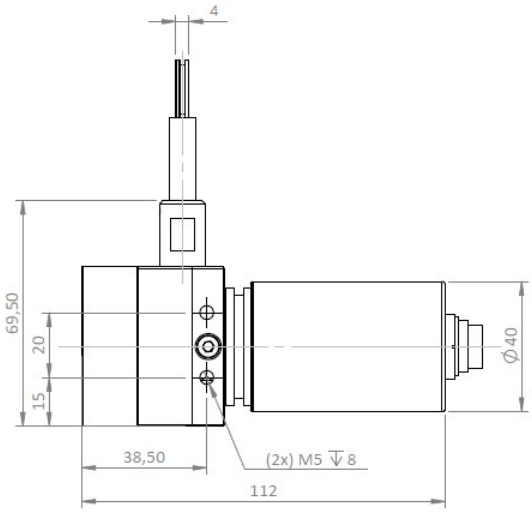
Connection :

Male connector M16 8 pins (DIN)	Male connector M12 4 pins (A-coding)	PVC cable 4 wire	U010V or U005V **(voltage output)**	I420 **(current loop – 2 wires)**	I420T ou I020T **(current generator – 3 wires)**	I420G or I020G **(current generator – 4 wires)**
1	1	Brown	Input voltage +	Signal +	Alimentation +	Input voltage +
2	2	White	Input voltage GND	Signal -	Alimentation GND	Input voltage GND
3	3	Green	Signal +		Signal +	Signal +
4	4	Yellow	Signal GND		/	Signal GND
 Sensor side view	 Sensor side view					

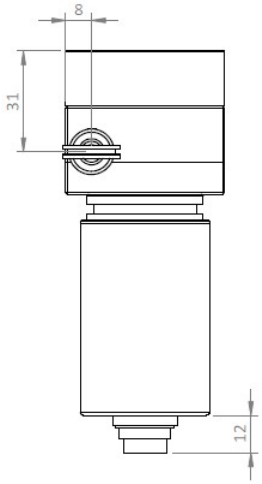
Dimensional drawing:



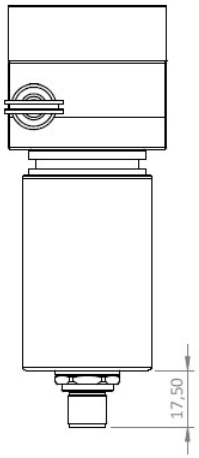




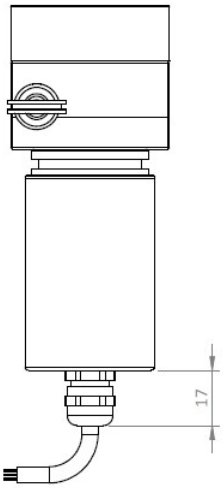
C Connection
(M16 – 8 pins (DIN) connector)



L4 Connection
(M12 - 4 pins (A-coding) connector)



K Connection
(PVC cable – 4 wires)

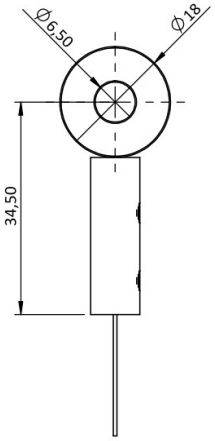


Options :

Cable attachment with a lug :

Standard

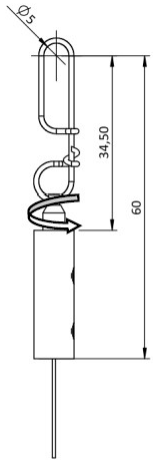
The attachment lug is fixed with a M6 screw or a clevis.



Cable attachment with a clip :

OP-EM

This fastening system allows a rotation about its axis.
The clip is fixed with a M4 screw or a clevis.

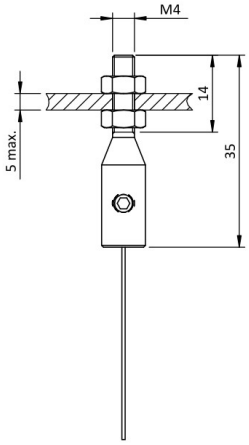


Cable attachment fitted with a M4 threaded rod:

OP-M4

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

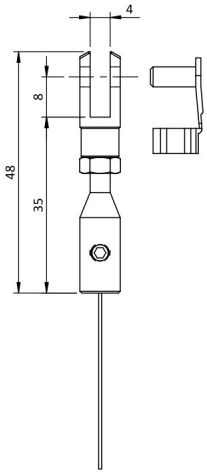
Caution
Never screw the threaded rod into a fixed nut, a twist of the measurement cable would damage it.



Cable attachment with a clevis :

OP-CP

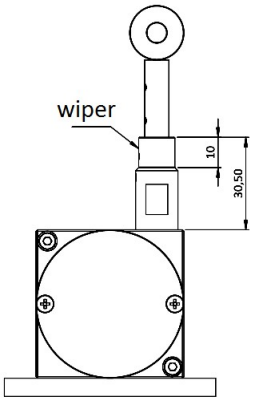
The attachment of the clevis is done using a pin (provided).



Cable dust wiper:

OP-RAC

The dust wiper cleans 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.