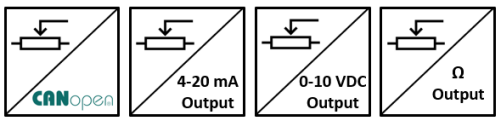
DRAW WIRE SENSOR

"High strength stainless steel wire"

AWP 810

GENERAL FEATURES

- Different stroke (measuring) lengths between 0…2000 mm and 0…5100 mm
- ±0.5% FS linearity
- Potentiometric, 0-10 VDC, 4-20 mA analog output or CANopen output options
- Redundant output model option
- Stainless steel measuring wire
- IP54 protection class
- Compact design
- Easy installation
- 2 m/s maximum speed
- Shock/Vibration resistant
- Aluminum anodized body



AWP 810 series draw wire sensors; consists of a rotary potentiometer which is controled by stainless steel wire. They make measurement by pulling and rewinding stainless steel wire. Different stroke (measuring) lengths between 0…2000 mm and 0…5100 mm are available. They converts linear motion to potentiometric output.

The "A" series gives of 4-20 mA analog output with the help of the converter card.
The "V" series gives of 0-10 VDC analog output with the help of the converter card.
The "C" series gives of CANopen signal output with the help of the converter card.

Optionally, redundant output, different non-standard measuring lengths, cable length or socket model can be requested.

TECHNICAL SPECIFICATIONS

***Stroke (measuring) Length**	Different measuring lengths between 0…2000 mm and 0…5100 mm
***Connection Cable Length**	3m (standard), 5m, 10m
***Supply Voltage**	"A" and "V" models: 12…30 VDC
	CANopen output model: 10…30 VDC
	Potentiometric output model: 42V max.
***Output Signals**	Potentiometric 0-10 VDC 4-20 mA CANopen (Optionally Redundant Output)
Linearity	±0.5% FS

Maximum Speed	2 m/s
Required Force	12N
***Resistance**	5 KΩ (standard), 10 KΩ
Measuring Type	Potentiometric
Materials	Housing: Aluminum/steel /plastic
	Measuring Wire: Stainless steel
IP Protection Class	IP54
Operating	-25°C … +85°C
Relative Humudity	%95
Weight	≈2200 gr

Note: The technical specifications indicated by (*) vary according to the selected model. The detailed code table is shown on page 4.

CANopen SPECIFICATIONS

Resolution	23 Bit
Communication profile	CiA 301
Device Type	CANopen, CiA DS406
Node ID	Between 1 and 127, it can be adjusted with LSS or SDO
Baud Rate	10 kBit/s, 20 kBit/s, 50 kBit/s, 100 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 Mbit/s
PDO Data Rate	500 ms
Error Control	Heartbeat, Emergency Message
PDO	2 Tx PDO
PDO Modes	Event/Time triggered, Synch/Asynch
SDO	1 server
Position Information	Object Dictionary 6004
Termination Resistance	Optional, specify at the order stage.

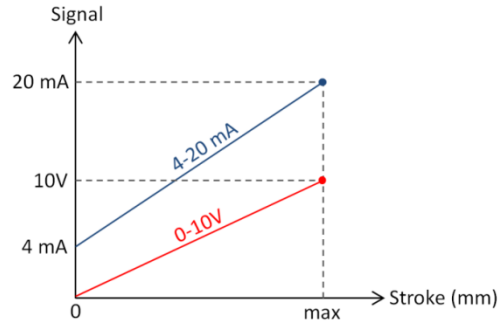
ELECTRICAL CONNECTION

Analog

0-10V or POTENTIOMETER Connection		
Signal	**Cable Color**	**M12 5 pin socket**
Earth	Silver	Pin 1
+V	Red	Pin 2
0V	Black	Pin 3
0-10V / Pot	Yellow	Pin 4
-	-	Pin 5

4-20 mA Connection		
Signal	**Cable Color**	**M12 5 pin socket**
Earth	Silver	Pin 1
+V	Red	Pin 2
-	-	Pin 3
4-20 mA	Yellow	Pin 4
-	-	Pin 5

* 1 pcs M12 5 pin male connector is used as standard for single output models
* Redundant models have two outputs. 1 pcs M12 5 pin male and 1 pcs M12 5 pin female sockets are used as standard.
* Different socket models can be requested optionally.

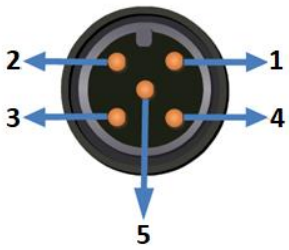


CANopen

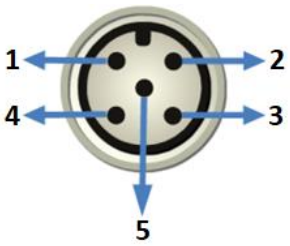
Signal	Cable Color	M12-5 Pin Socket
CAN_SHIELD	Silver (mesh)	Pin 1
+V (10...30 VDC)	Red	Pin 2
GND (0V)	Black	Pin 3
CAN_H	Yellow	Pin 4
CAN_L	Green	Pin 5

* CANopen models have 2 outputs. 1 pcs M12 5 pin male and 1 pcs M12 5 pin female sockets are used as standard.
* Different socket models can be requested optionally.

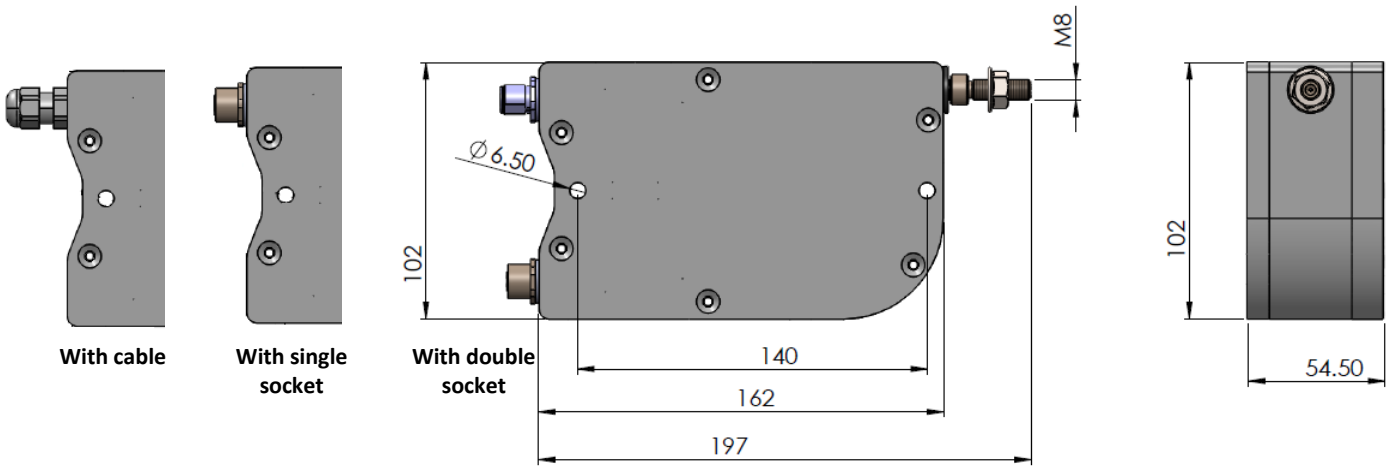
M12 5 Pin Female Soket



M12 5 Pin Male Soket



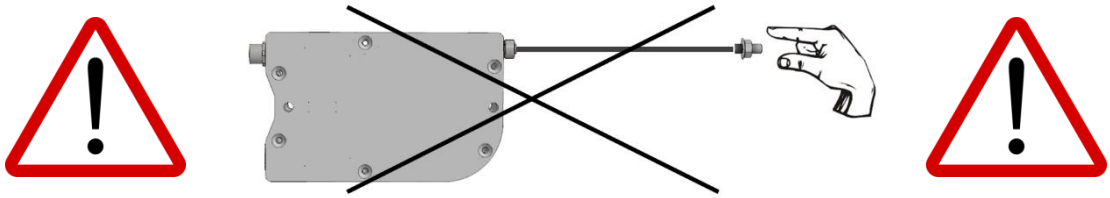
MECHANICAL DIMENSIONS (mm)



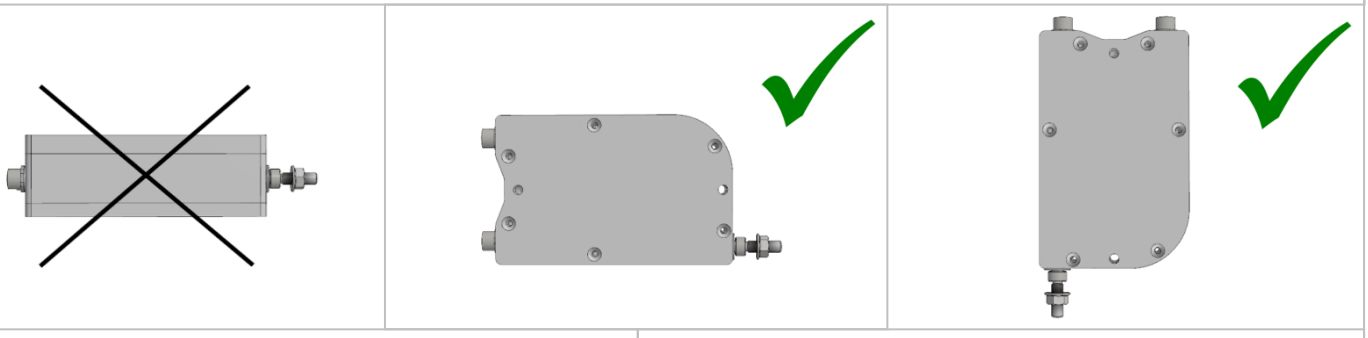
With cable | With single socket | With double socket

MOUNTING AND WARNINGS

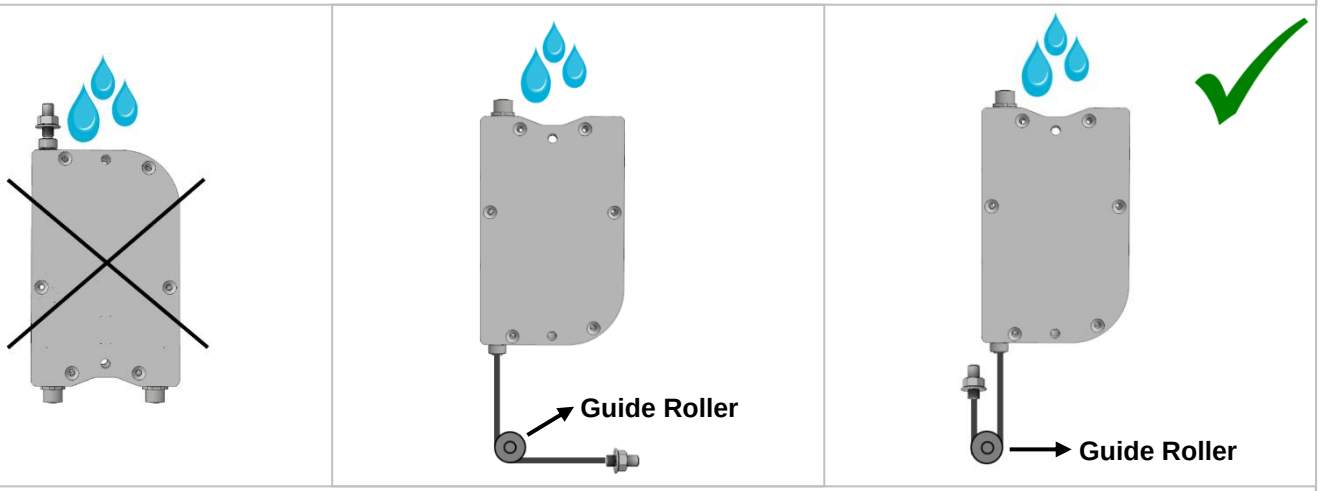
1. Never release the wire after pulling. Otherwise, the coil spring will be damaged.



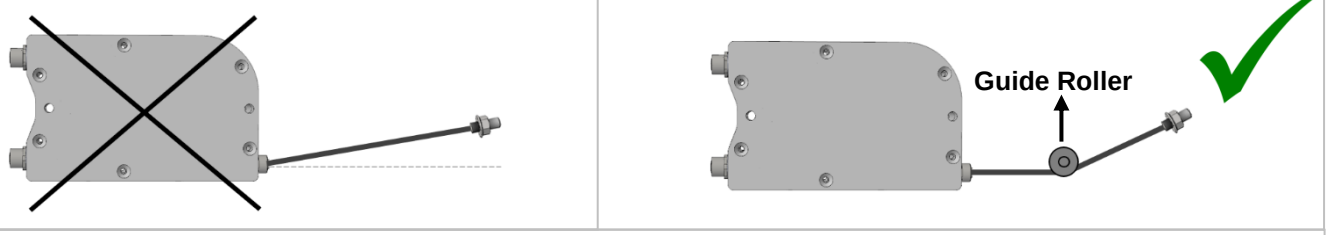
2. Mount the sensor according to the mounting directions shown below.



3. If there is a trickle of water (like a rain), the wire outlet must not be a drip of water upstream. If needed please use guide rollers.



4. The wire should not be pulled in angular. If needed, please use guide rollers.



Important Note(!): Failure to comply with these recommendations, the malfunctions that may occur will not be under the warranty.

SAMPLE APPLICATION FIELDS

- Elevators
- Press machines
- Crane systems
- Wood processing machines
- Marble processing machines
- Storage positioning
- Dam protections
- Sluice gate control
- Air compressors
- Glass processing machines
- Lifting platforms
- Applications in medical technologies (operating table etc.)
- Forklifts
- Screw machines
- Paper machines
- Sewing machines
- Hydraulic machines
- Sheet metal machines
- Printing machines
- Horizontal control equipments
- Construction machines
- Industrial robots
- Injection machines
- X-Y axis displacement
- Liquid level measurements and position control

PRODUCT CODE

Model
AWP 810

Resistance (2)
No Code: Analog or CANopen output
5K: 5 KΩ (standard)
10K: 10 KΩ

Output Signals
No Code : Potentiometric
V : 0-10 VDC
A : 4-20 mA
C : CANopen

AWP 810	–	XXX	–	XXX	–	X	–	X	–	XX

Stroke Length (1)
Different measuring lengths between 0…2000 mm and 0…5100 mm

Electrical Connection (3)
3M : 3 m cable
5M : 5 m cable
10M : 10 m cable
S13F : M12 5 pin female socket
S13M : M12 5 pin male socket
S13FM: M12 5 pin female + M12 5 pin male socket (available on redundant and CANopen models)

Output Type
No Code : Single Output
Dual : Redundant Output

(1) For other (special production) stroke lengths, please contact us.
(2) For products with analog or CANopen output, resistance value is not selected. Please contact for other resistance options for potentiometric output products.
(3) The product can be requested with cable or socket.
As standard;
For single output models, 1 pcs M12 5 pin male socket (S13M) is used.
For redundant and CANopen output models, 1 pcs M12 5 pin female + 1 pcs M12 5 pin male socket (S13FM) is used.
However, different socket combinations may be requested as in the examples below.
Please contact us for any other socket model other than M12.

Sample 1 (Potentiometric output) : AWP-810-3000-5K-**S13M**
AWP 810 series, 3000 mm stroke, 5K resistance, **M12 5 pin male socket**, potentiometric output
Sample 2 (CANopen output) : AWP-810-3000-**S13FM**-C-DUAL
AWP 810 series, 3000 mm stroke, **1 pcs M12 5 pin female + 1 pcs M12 5 pin male socket**, CAN output, redundant
Sample 3 (Analog output) : AWP-810-3000-**3M**-A-DUAL
AWP 810 series, 3000 mm stroke, **3 meters cable output**, current output, redundant

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