

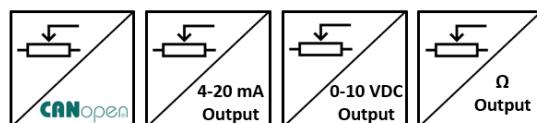
# DRAW WIRE SENSOR

## “High strength stainless steel wire”

**AWP 905**



- 2500mm, 4000mm or 5000mm stroke (measuring) lengths (Optional others)
- $\pm 0.5$  FS linearity
- Potentiometric, 0-10 VDC, 4-20 mA analog output or CANopen output
- Aluminum anodized body
- Stainless steel measuring wire
- IP54 protection class
- Easy installation
- Shock/Vibration resistant



AWP 905 series draw wire sensors; consists of a rotary potentiometer which is controlled by stainless steel wire. They make measurement by pulling and rewinding stainless steel wire. Different stroke (measuring) lengths up to 5000 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, different cable length or socket model can be requested.

### TECHNICAL SPECIFICATIONS

<b>*Stroke (measuring) Length</b>	2500mm, 4000mm, 5000mm *Optional others	<b>Maximum Speed</b>	0.5 m/s
<b>*Connection Cable Length</b>	3m (standard), 5m, 10m	<b>Required Force</b>	12N
<b>*Supply Voltage</b>	“A” and “V” models: 12...30 VDC CANopen output model: 10...30 VDC Potentiometric output model: 42V max.	<b>*Resistance</b>	5 KΩ (standard), 10 KΩ
<b>*Output Signals</b>	Potentiometric 0-10 VDC 4-20 mA CANopen	<b>Measuring Type</b>	Potentiometric
<b>Linearity</b>	$\pm 0.5$ FS	<b>Materials</b>	Housing: Aluminum/delrin Measuring Wire: Stainless steel
		<b>Protection Class</b>	IP54
		<b>Operating Temp.</b>	-25°C ... +85°C
		<b>Relative Humidity</b>	%95
		<b>Weight</b>	~1100gr

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

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

## ELECTRICAL CONNECTION

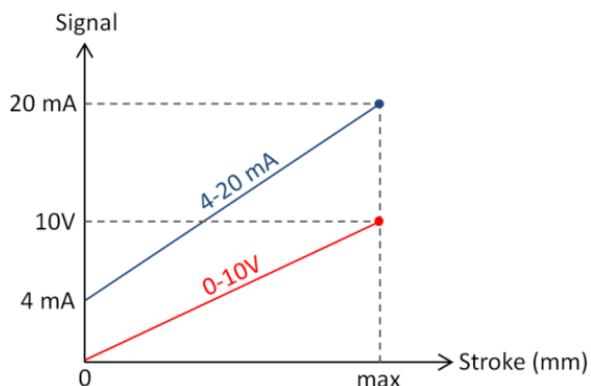
### Analog

#### 0-10V or POTENTIOMETER Connection

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



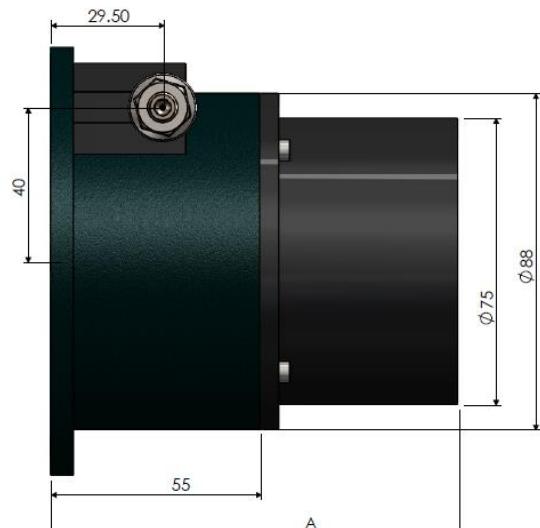
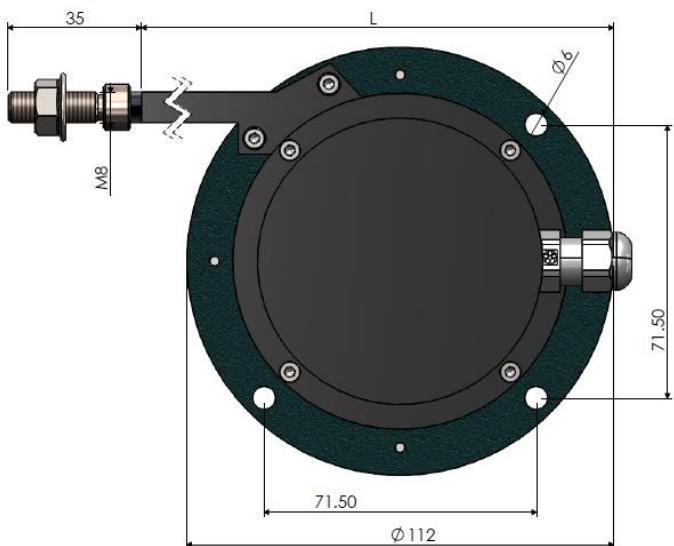
### CANopen

Signal	Cable Color	M12-5 Pin Socket
CAN_SHIELD	Shield	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.

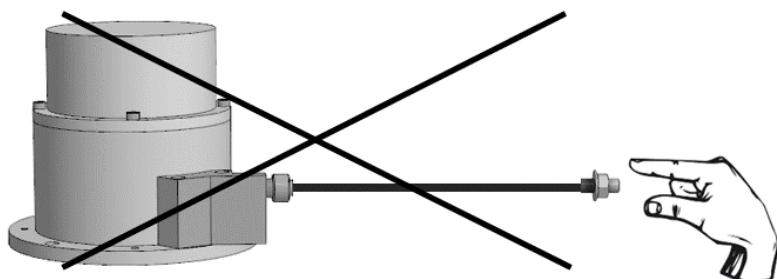
## MECHANICAL DIMENSIONS (mm)



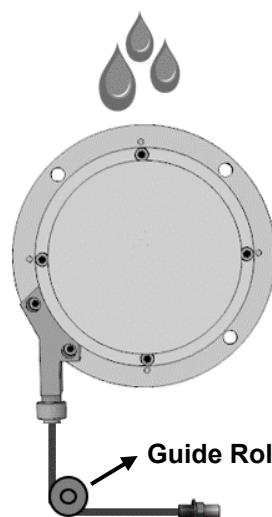
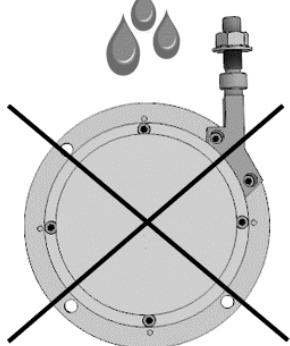
STROKE	L	A
2.5m	113	95
4m	145	107
5m	187	107

## MOUNTING AND WARNINGS

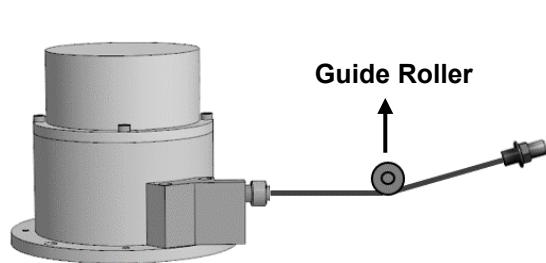
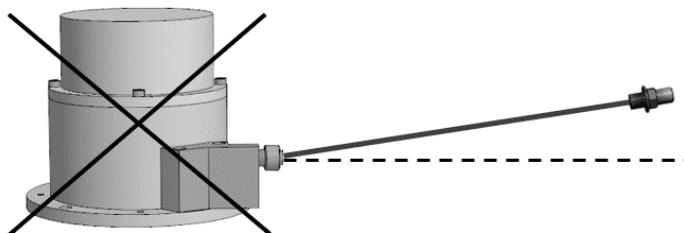
1. Never release the wire after pulling. Otherwise, the coil spring will be damaged.



2. 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.



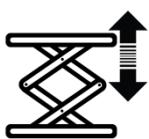
3. The wire should not be pulled in angular. If needed, please use guide rollers.



**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
- 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 905

**Stroke Length<sup>(1)</sup>**

2500 : 0...2500mm  
4000 : 0...4000mm  
5000 : 0...5000mm

5000

**Resistance<sup>(2)</sup>**

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

XXX

**Output Signals**

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

X

**Electrical Connection<sup>(3)</sup>**

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 CANopen models)

X

(1) For other stroke length options, 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 analog output models, 1 pcs M12 5 pin male socket (S13M) is used.

For CANopen output models, 1 pcs M12 5 pin female + 1 pcs M12 5 pin male socket (S13FM) is used.

Please contact us for any other socket model other than M12

**Sample 1 (Potentiometric output)** : AWP-905-5000-5K-S13M

AWP 905 series, 5000 mm stroke, 5K resistance, **M12 5 pin male socket**, potentiometric output

**Sample 2 (CANopen output)** : AWP-905-5000-S13FM-C

AWP 905 series, 5000 mm stroke, **1 pcs M12 5 pin female + 1 pcs M12 5 pin male socket**, CANopen output

**Sample 3 (Analog output)** : AWP-905-5000-3M-A

AWP 905 series, 5000 mm stroke, **3 meters cable output**, current output

**Atek Elektronik Sensör Teknolojileri Sanayi ve Ticaret A.Ş.**



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