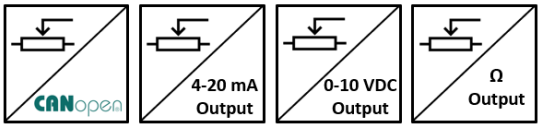
DRAW WIRE SENSOR

"High strength stainless steel wire"

AWP 905

- 2500mm, 4000mm or 5000mm stroke (measuring) lengths (Optional others)
- ±%0.25 FS linearity
- Potentiometric, 0-10 VDC, 4-20 mA analog output or CANopen output
- Aluminum anodized body
- Stainless steel measuring wire
- IP67 protection class
- Easy installation
- 2 m/s maximum speed
- Shock/Vibration resistant



AWP 905 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 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

***Stroke (measuring) Length**	2500mm, 4000mm, 5000mm *Optional others
***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
Linearity	±%0.25 FS

Maximum Speed	2 m/s
Required Force	12N
***Resistance**	5 KΩ (standard), 10 KΩ
Measuring Type	Potentiometric
Materials	Housing: Aluminum/delrin
	Measuring Wire: Stainless steel
Protection Class	IP67
Operating Temp.	-25°C … +85°C
Relative Humudity	%95
Weight	≈1100gr

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

CANopen SPECIFICATIONS

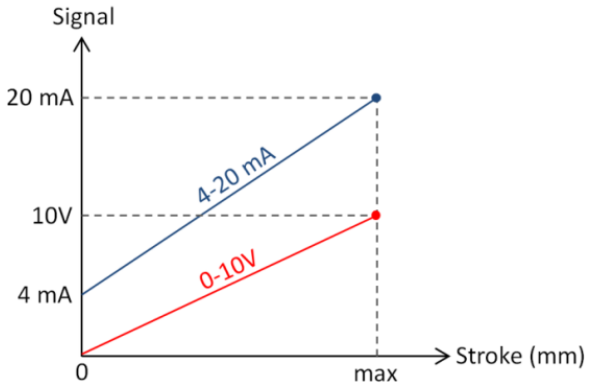
Resolution	23 Bit
Communication profile	CiA 301
Device Type	CANopen, CiA DS406
Node ID	Between 1 and 127, it can be adjusted with LSS or SDO
Baud Rate	10 kBit/s, 20 kBit/s, 50 kBit/s, 100 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 Mbit/s
PDO Data Rate	500 ms
Error Control	Heartbeat, Emergency 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	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

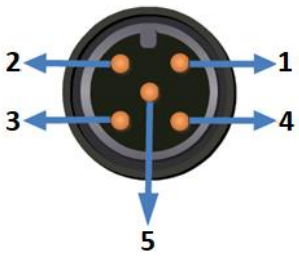


CANopen

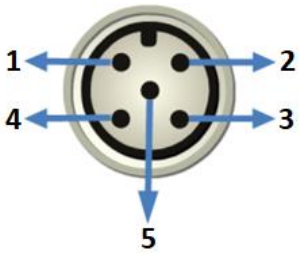
Signal	Cable Color	M12-5 Pin Socket
CAN_SHIELD	Shield	Pin 1
+V (10...30 VDC)	Red	Pin 2
GND (0V)	Black	Pin 3
CAN_H	Yellow	Pin 4
CAN_L	Green	Pin 5

* 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.

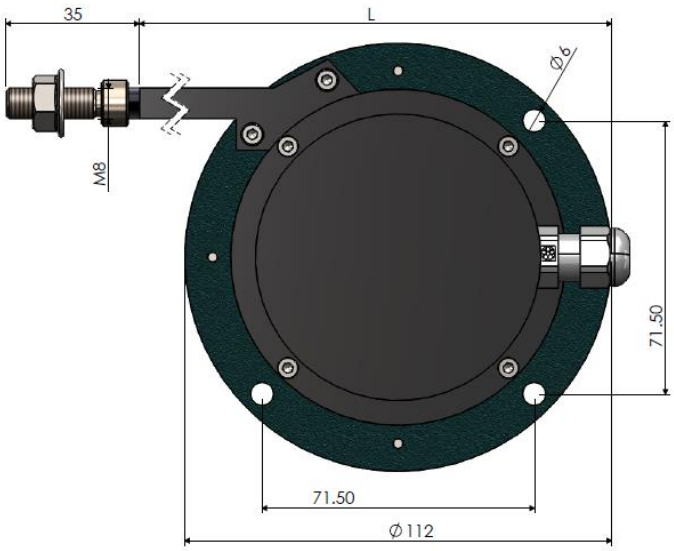
M12 5 Pin Male Socket

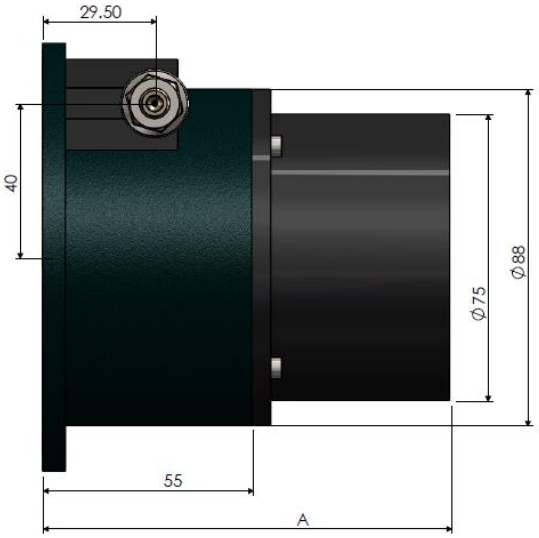


M12 5 Pin Female Socket



MECHANICAL DIMENSIONS (mm)

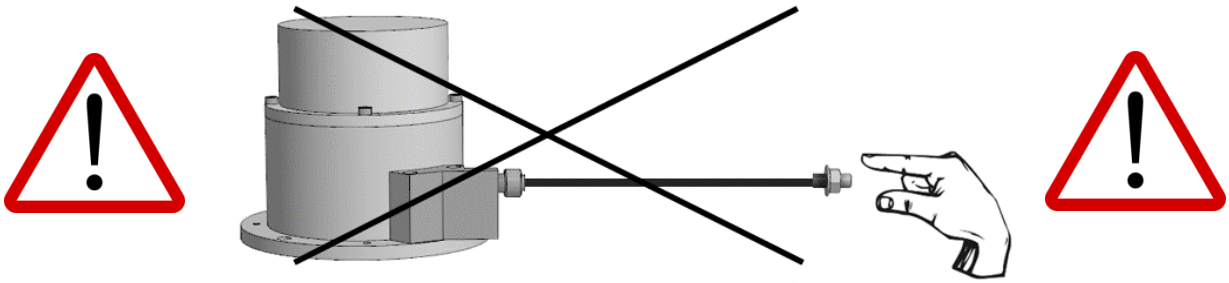




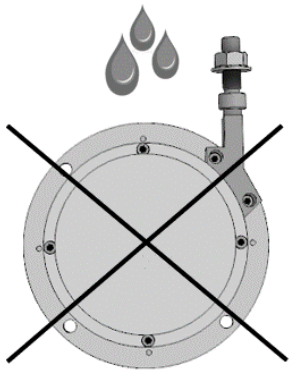
STROKE	L	A
2.5m	113	95
4m	145	107
5m	187	107

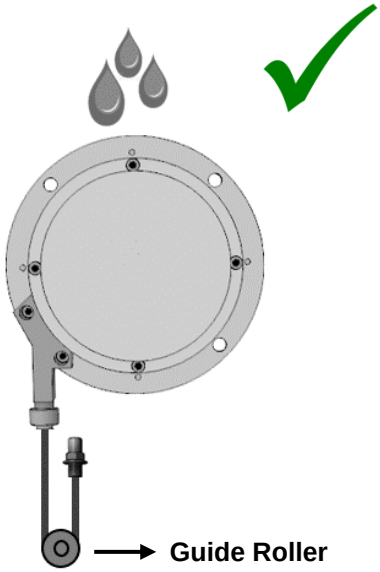
MOUNTING AND WARNINGS

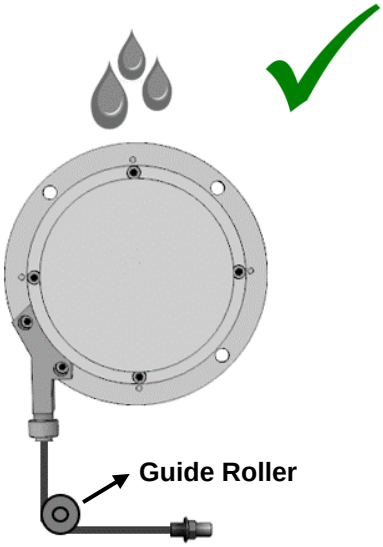
1. Never release the wire after pulling. Otherwise, the coil spring will be damaged.



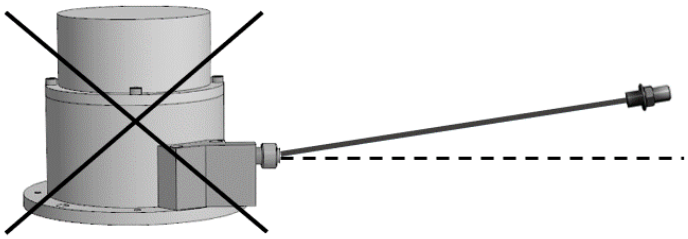
2. If there is a trickle of water (like a rain), the wire outlet must not be a drip of water upstream. If needed please use guide rollers.

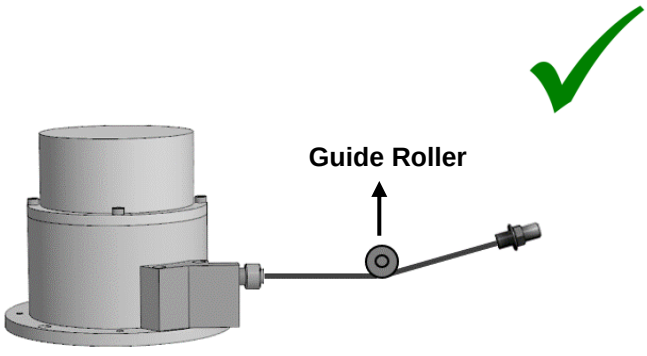






3. The wire should not be pulled in angular. If needed, please use guide rollers.

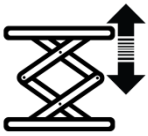




Important Note(!): Failure to comply with these recommendations, the malfunctions that may occur will not be under the warranty.

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		Stroke Length(1)		Resistance(2)		Electrical Connection(3)		Output Signals
AWP 905	–	5000	–	XXX	–	X	–	X

Stroke Length(1)

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

Resistance(2)

5K: 5 KΩ (standard)
10K: 10 KΩ

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 CANopen models)

Output Signals

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

(1) For other stroke length options, please contact us.
(2) For other resistance options, please contact us.
(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: AWP-905-5000-5K-**S13M**
AWP 905 series, 5000 mm stroke, 5K resistance, **2 pcs M12 5 pin male socket**, potentiometric output
Sample 2: AWP-905-5000-5K-**S13FM**-C
AWP 905 series, 5000 mm stroke, 5K resistance, **1 pcs M12 5 pin female + 1 pcs M12 5 pin male socket**, CANopen output
Sample 3: AWP-905-5000-5K-**3M**-A
AWP 905 series, 5000 mm stroke, 5K resistance, **3 meters cable output**, current output

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