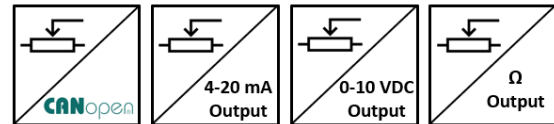




- Different measuring lengths up to 5000 mm
- ± 0.25 FS linearity
- Potentiometric, 0-10 VDC, 4-20 mA analog output or CANopen output
- Aluminum anodized body
- Stainless steel measuring wire
- IP67 protection class
- Easy installation
- 2 m/s maximum speed
- Shock/Vibration resistant



AWP 905 series draw wire sensors; consists of a rotary potentiometer which is 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 convert linear motion to potentiometric output.

The "A" series gives 4-20 mA analog output with the help of the converter card.

The "V" series gives 0-10 VDC analog output with the help of the converter card.

The "C" series gives 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 | Different measuring lengths up to 5000 mm | Maximum Speed | 2 m/s |
| *Connection Cable Length | 3m (standard), 5m, 10m | Required Force | 12N |
| *Supply Voltage | "A" and "V" models: 12...30 VDC | *Resistance | 5 K Ω (standard), 10 K Ω |
| | CANopen output model: 10...30 VDC | Measuring Type | Potentiometric |
| | Potentiometric output model: 42V max. | Materials | Housing: Aluminum/delrin Measuring Wire: Stainless steel |
| *Output Signals | Potentiometric | Protection Class | IP67 |
| | 0-10 VDC | Operating Temp. | -25°C ... +85°C |
| | 4-20 mA CANopen | Relative Humidity | %95 |
| Linearity | ± 0.25 FS | Weight | ≈ 1100 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

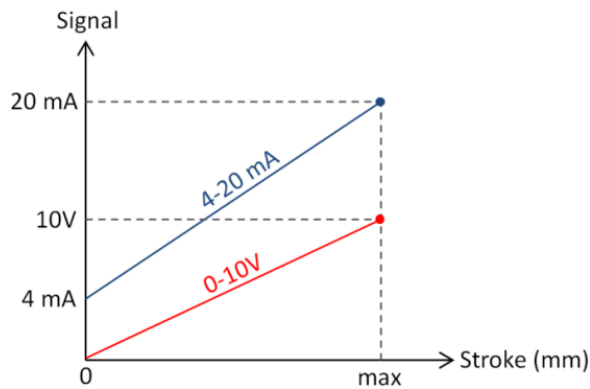
Analog

0-10V or POTENTIOMETER Connection

| Signal | Cable Color | M12 5 pin socket |
|-------------|-------------|------------------|
| Earth | 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 |



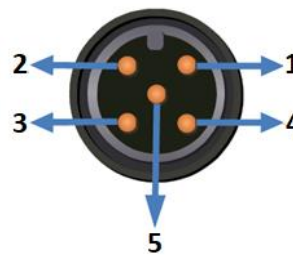
CANopen

| 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 |

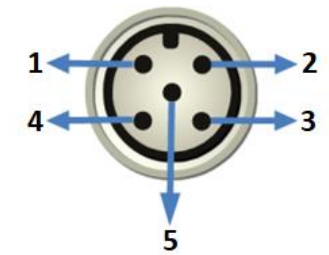
* CANopen models have 2 outputs. 1 pcs M12 5 pin male and 1 pcs M12 5 pin female sockets are used as standard.

* Different socket models can be requested optionally.

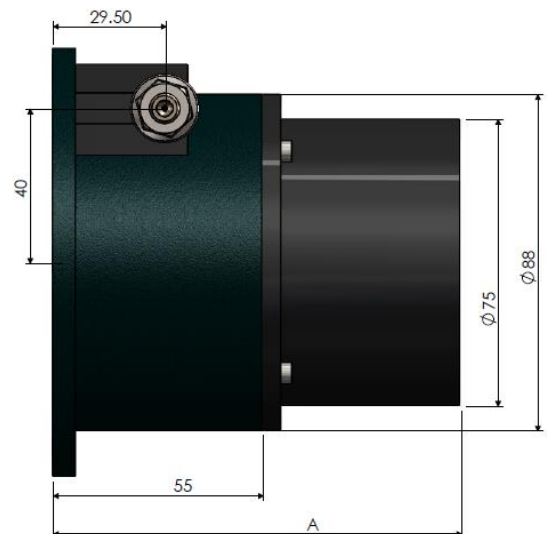
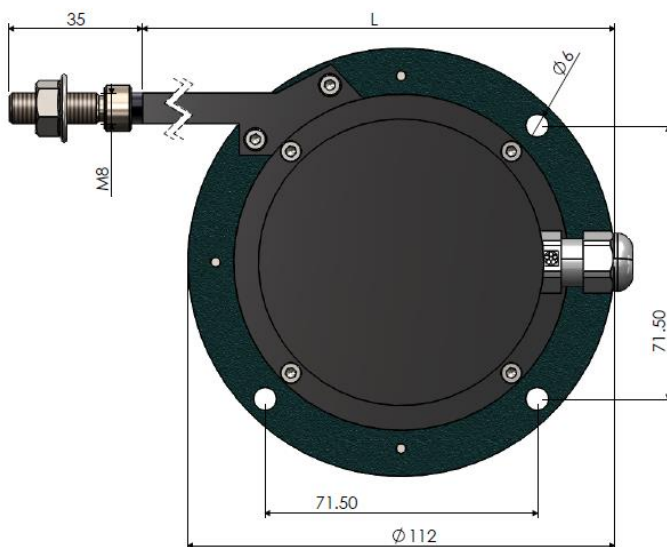
M12 5 Pin Male Socket



M12 5 Pin Female Socket



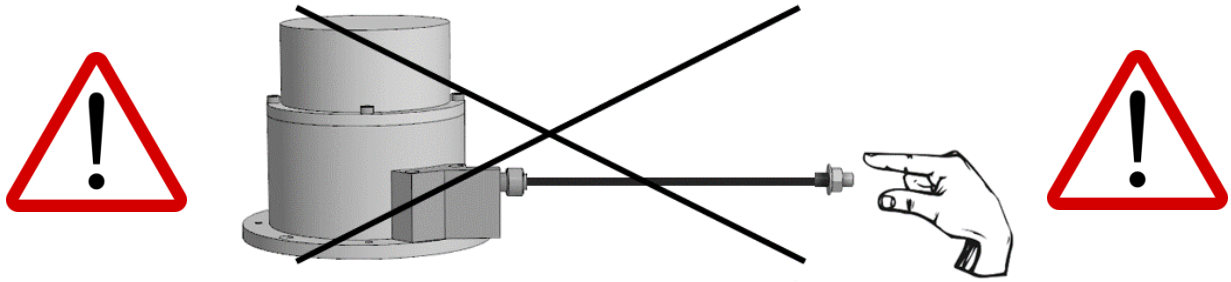
MECHANICAL DIMENSIONS (mm)



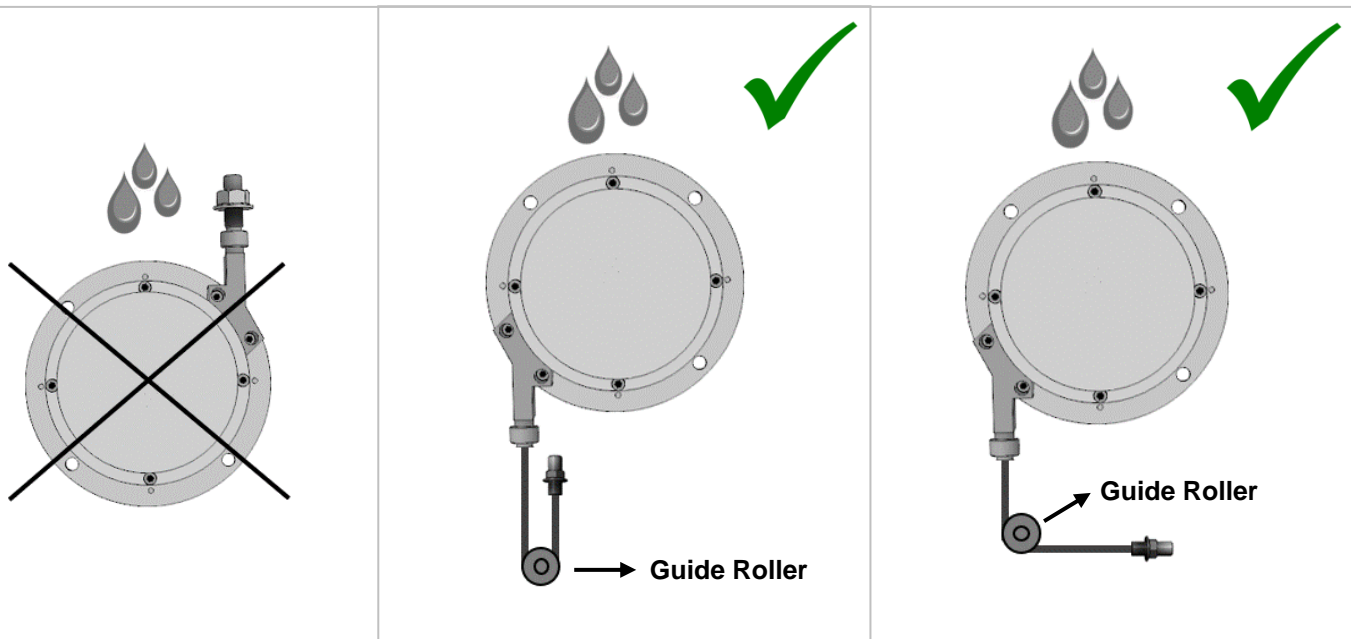
| STROKE | L | A |
|--------|-----|-----|
| 2.5m | 113 | 95 |
| 4m | 145 | 107 |
| 5m | 187 | 107 |

MOUNTING AND WARNINGS

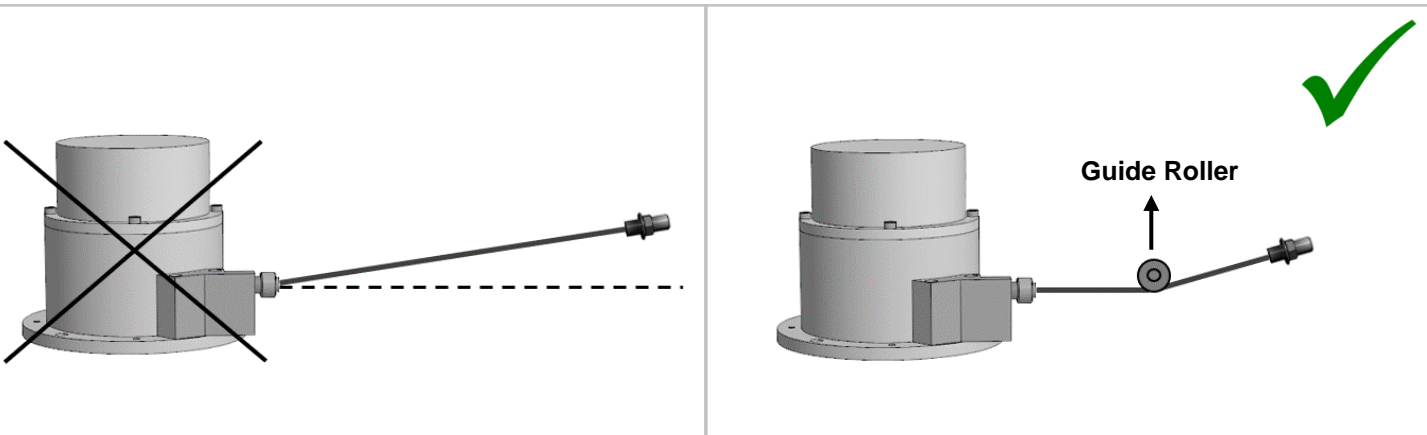
1. Never release the wire after pulling. Otherwise, the coil spring will be damaged.



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.



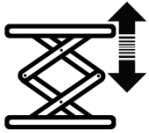
3. The wire should not be pulled in angular. If needed, please use guide rollers.



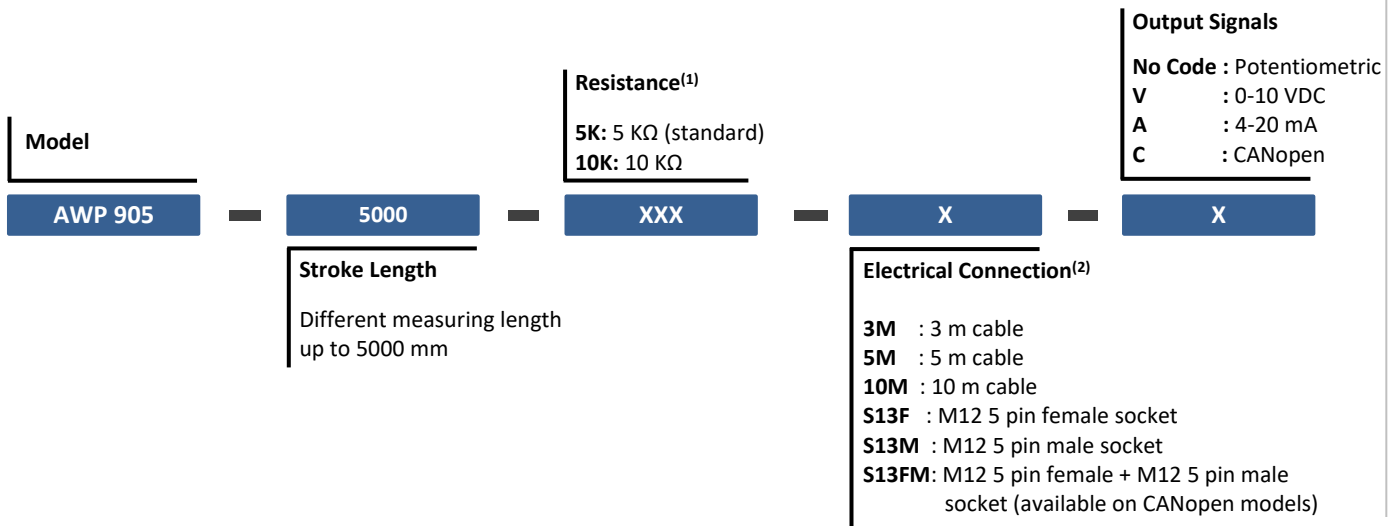
Important Note(!): Failure to comply with these recommendations, the malfunctions that may occur will not be under the warranty.

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



- (1) For other resistance options, please contact us.
 (2) 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