

# DRAW WIRE SENSOR

“Analog or CANopen Output, High Accuracy”

**AWP703**

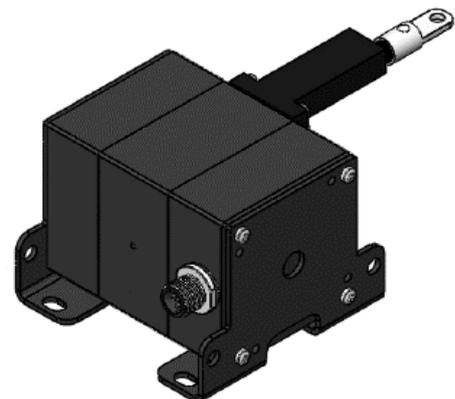
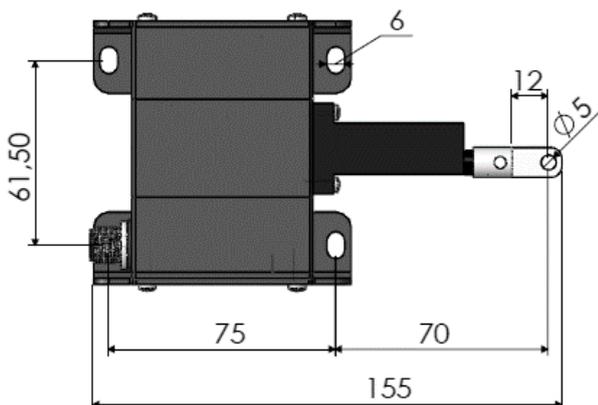
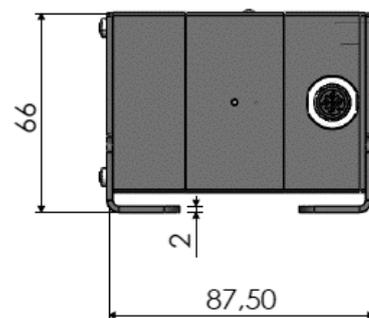
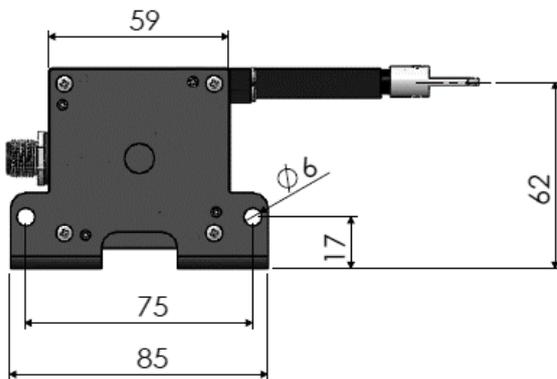


- 3000 mm measuring range
- Magnetic absolute measurement technology
- Robust stainless steel measuring wire
- Aluminium housing
- Analog or CANopen output
- Programmable analog output option
- IP67 protection class
- Compact design and easy mounting
- 1 m/s maximum movement speed
- Shock/vibration resistant

## MECHANICAL DATA

|                                 |  |
|---------------------------------|--|
| <b>Measuring Range (stroke)</b> | Up to 3000 mm                                      |
| <b>Max. Movement speed</b>      | 1 m/s  |
| <b>Protection Class</b>         | IP67   |
| <b>Operating Temperature</b>    | -40°C...+85°C                                      |
| <b>Material</b>                 | Body: Aluminium<br>Measuring wire: Stainless steel |
| <b>Weight</b>                   | ~950 gr  |

## MECHANICAL DIMENSIONS (mm)



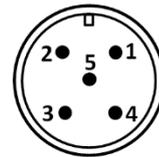
ANALOG VERSION

Electrical Specifications

|                             |   |
|-----------------------------|---|
| Measuring range             | Up to 3000 mm   |
| Supply voltage              | 15...26 VDC   |
| Current consumption         | ≤60 mA  |
| Reverse polarity protection | Yes   |
| Short circuit protection    | Yes (only supply)                                       |
| Response frequency          | 500 Hz  |
| Resolution                  | 0.05 mm   |
| Linearity                   | ±%0.5 FS  |
| Output signal               | Voltage: 0-10V, 0.5-4.5V, 0-5V<br>Current: 4-20 mA      |
| Signal characteristics      | Increasing (exmp: 4-20 mA)<br>Decreasing (exmp:20-4 mA) |
| Sensing device              | Magnetic absolute encoder                               |
| Electrical connection       | M12 connector or cable                                  |

Electrical Connection

| Signal               | Cable  | M12 / 5 pin male connector |
|----------------------|--------|----------------------------|
| V+ (15...26 VDC)     | Red    | Pin 1                      |
| Analog output signal | Yellow | Pin 2                      |
| GND                  | Black  | Pin 3                      |
| N/C                  | Green  | Pin 4                      |
| N/C                  | Pink   | Pin 5                      |



Order Code

Electrical Connection

**S13M:** M12/5 pin male connector  
**2M:** 2m cable  
 \*Optional others

Model

|         |   |      |   |      |   |    |
|---------|---|------|---|------|---|----|
| AWP 703 | - | XXXX | - | XXXX | - | XX |
|---------|---|------|---|------|---|----|

Measuring Range

Up to 3000 mm

Analog Output Signal

- V : 0-10 VDC
- V1 : 0-5 VDC
- A : 4-20 mA
- V3 : 0.5-4.5 VDC
- NV : 10-0 VDC
- NV1 : 5-0 VDC
- NA : 20-4 mA
- NV3 : 4.5-0.5 VDC

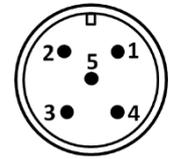
## ANALOG VERSION, PROGRAMMABLE

### Electrical Specifications

|                             |  |
|-----------------------------|--|
| Measuring range             | Up to 3000 mm  |
| Supply voltage              | 15...26 VDC  |
| Current consumption         | ≤60 mA   |
| Reverse polarity protection | Yes  |
| Short circuit protection    | Yes (only supply)  |
| Response frequency          | 500 Hz   |
| Resolution                  | 0.05 mm  |
| Linearity                   | ±%0.5 FS   |
| Output signal               | Voltage: 0-10V, 0.5-4.5V, 0-5V (programmable)<br>Current: 4-20 mA (programmable) |
| Signal characteristics      | Increasing (exmp: 4-20 mA)<br>Decreasing (exmp:20-4 mA)                          |
| Sensing device              | Magnetic absolute encoder  |
| Electrical connection       | M12 connector or cable   |

### Electrical Connection

| Signal               | Cable  | M12 / 5 pin male connector |
|----------------------|--------|----------------------------|
| V+ (15...26 VDC)     | Red    | Pin 1                      |
| Analog output signal | Yellow | Pin 2                      |
| GND                  | Black  | Pin 3                      |
| N/C                  | Green  | Pin 4                      |
| SPAN/ZERO            | Pink   | Pin 5                      |



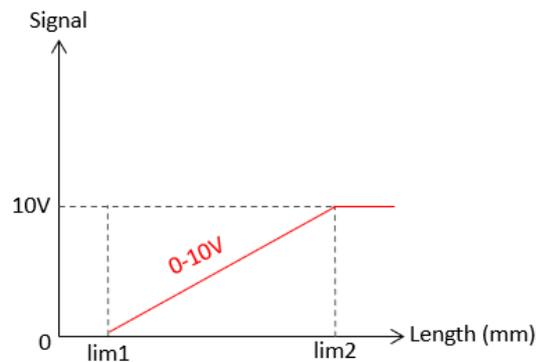
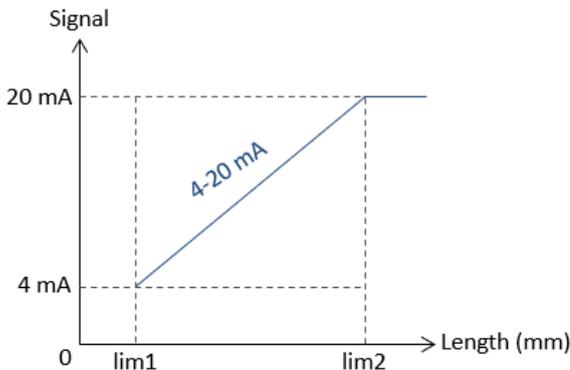
**SETTING MEASUREMENT LIMITS:** With this feature, you can set the minimum and maximum measurement limits.

In order to determine the **minimum measurement limit (lim1)**, the SPAN/ZERO and GND terminal are short-circuited for at least 3 seconds.

In order to determine the **maximum measurement limit (lim2)**, the SPAN/ZERO and GND terminal are short-circuited for at least 6 seconds.

To **return to the factory settings**, the SPAN/ZERO and GND terminal are short-circuited for at least 10 seconds.

### SAMPLE SIGNAL OUTPUT GRAPHICS



### Order Code

| Model           |   | Electrical Connection |   |  | Programming Feature |    |   |    |
|-----------------|---|-----------------------|---|--|---------------------|----|---|----|
| AWP 703         | - | XXXX                  | - | XXXX   | -                   | XX | - | XX |
| Measuring Range |   |                       |   | Analog Output Signal   |                     |    |   |    |
| Up to 3000 mm   |   |                       |   | <b>V</b> : 0-10 VDC<br><b>V1</b> : 0-5 VDC<br><b>A</b> : 4-20 mA<br><b>V3</b> : 0.5-4.5 VDC<br><b>NV</b> : 10-0 VDC<br><b>NV1</b> : 5-0 VDC<br><b>NA</b> : 20-4 mA<br><b>NV3</b> : 4.5-0.5 VDC |                     |    |   |    |

## Electrical Specifications

|                             |                           |
|-----------------------------|---------------------------|
| Measuring range             | Up to 3000 mm             |
| Supply voltage              | 12...30 VDC               |
| Current consumption         | ≤60 mA                    |
| Reverse polarity protection | Yes                       |
| Short circuit protection    | Yes (only supply)         |
| Response frequency          | 500 Hz                    |
| Resolution                  | 10 µm                     |
| Linearity                   | ±%0.5 FS                  |
| Sensing device              | Magnetic absolute encoder |
| Electrical connection       | M12 connector or cable    |

## CANopen Specifications

|                        |   |
|------------------------|---|
| Communication Profile  | CiA 301   |
| Device Type            | CANopen, CiA DS406  |
| Node ID                | Adjustable from 1 to 127 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          | 100 ms  |
| Error Control          | Heartbeat, Emergency Message  |
| PDO                    | 3 Tx PDO  |
| PDO Modes              | Event/Time triggered, Synch/Asynch  |
| SDO                    | 1 server  |
| Position Information   | Object Dictionary 0x6020  |
| Termination Resistance | Optional 120Ω   |

## Electrical Connection

| Signal          | Cable      | M12 / 5 pin male connector |
|-----------------|------------|----------------------------|
| CAN SHIELD      | CAN SHIELD | Pin 1                      |
| V+ (12...30VDC) | Red        | Pin 2                      |
| GND             | Black      | Pin 3                      |
| CAN_H           | Yellow     | Pin 4                      |
| CAN_L           | Green      | Pin 5                      |



## Order Code

| Model           |   | Electrical Connection |               |      |   |   |
|-----------------|---|-----------------------|---------------|------|---|---|
| AWP 703         | - | XXXX                  | -             | XXXX | - | X |
| Measuring Range |   |                       | Output Signal |      |   |   |
| Up to 3000 mm   |   |                       | C : CANopen   |      |   |   |

### Electrical Connection

**S13M:** M12/5 pin male connector

**2M:** 2m cable

\*Optional others