

# DRAW WIRE SENSOR

“Analog or CANopen Output, High Accuracy”

**AWP706**



- 6000 mm measuring range
- Magnetic absolute measurement technology
- 3-way mounting possibility
- 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

**Measuring Range (stroke)** Up to 6000 mm

**Max. Movement speed** 1 m/s

**Extension Force** 8N

**Protection Class** IP67

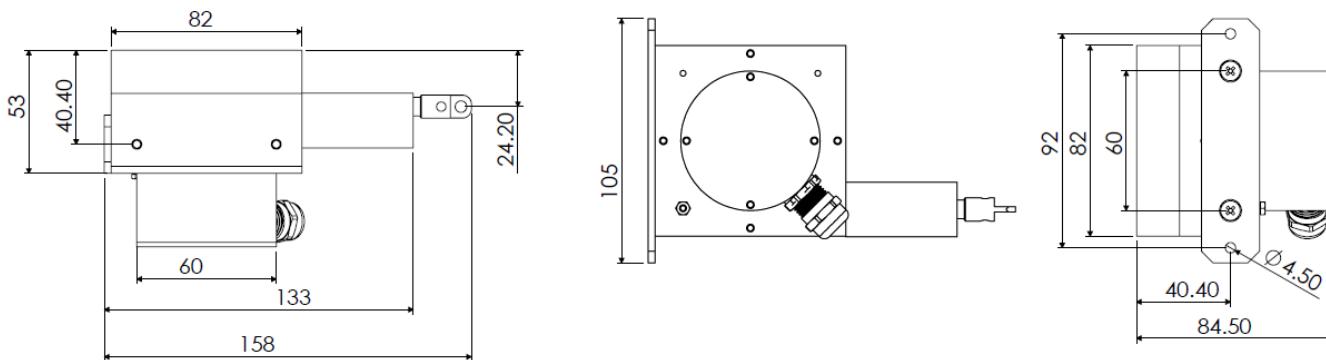
**Operating Temperature** -40°C...+85°C

**Material** Body: Aluminium

Measuring wire: Stainless steel

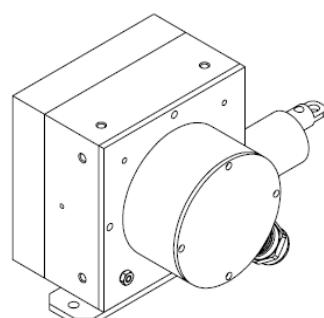
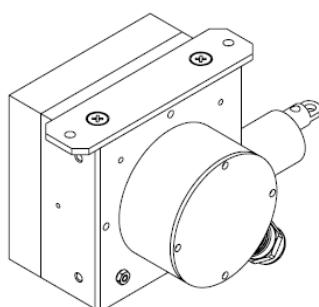
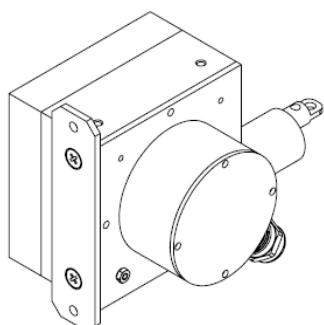
## MECHANICAL DIMENSIONS & MOUNTING

### MECHANICAL DIMENSIONS (mm)



### MOUNTING OPTIONS

1 pc mounting plate and 2 pcs M4 screws are supplied with the product. The mounting plate is fixed by the user with screws to any of the 3 surfaces of the body as shown below. Thus, the user can mount the product in the desired direction.



## TECHNICAL DATA

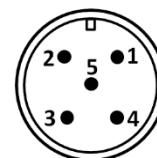
### ANALOG VERSION

#### Electrical Specifications

Measuring range	Up to 6000 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 Current: 4-20 mA
Signal characteristics	Increasing (exmp: 4-20 mA) 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

<b>Model</b>	<b>Electrical Connection</b>				
	<b>S13M:</b> M12/5 pin male connector <b>2M:</b> 2m cable *Optional others				
<b>AWP 706</b>	-	<b>XXXX</b>	-	<b>XXXX</b>	-
		<b>Measuring Range</b>			<b>Analog Output Signal</b>
		Up to 6000 mm			<b>V</b> : 0-10 VDC <b>V1</b> : 0-5 VDC <b>A</b> : 4-20 mA <b>V3</b> : 0.5-4.5 VDC <b>NV</b> : 10-0 VDC <b>NV1</b> : 5-0 VDC <b>NA</b> : 20-4 mA <b>NV3</b> : 4.5-0.5 VDC

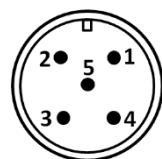
## ANALOG VERSION, PROGRAMMABLE

### Electrical Specifications

Measuring range	Up to 6000mm
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) Current: 4-20 mA (programmable)
Signal characteristics	Increasing (exmp: 4-20 mA) 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



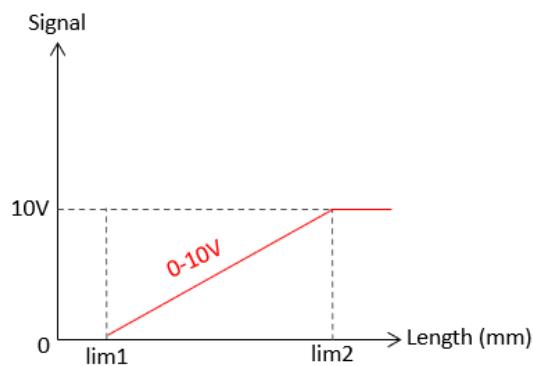
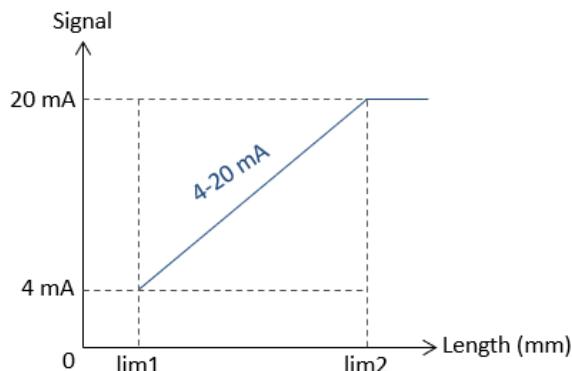
**SETTING MEASUREMENT LIMITS:** With this feature, you can set the minimum and maximum measurement limits.

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 706	-	XXXX		-	XXXX	-	XX	-	XX
Measuring Range	Up to 6000 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						

## CANopen VERSION

### Electrical Specifications

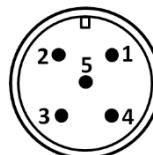
Measuring range	Up to 6000 mm
Supply voltage	12...30 VDC
Current consumption	≤60 mA
Reverse polarity protection	Yes
Short circuit protection	Yes (only supply)
Response frequency	500 Hz
Resolution	12.5 µm
Linearity	±%0.5 FS
Sensing device	Magnetic absolute encoder
Electrical connection	M12 connector or 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				
	S13M: M12/5 pin male connector	2M: 2m cable	*Optional others		
AWP 706	-	XXXX	-	XXXX	-
	Measuring Range	X			Output Signal
	Up to 6000 mm	C : CANopen			

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