

## SA-APS01-000

## Angle potentiometer

### Function

- Angle potentiometer's are designed to convert angular movement into a proportional voltage output using a simple 3-wire, low current operating circuit.



### Areas of application

- To measure linear rotations, e.g. steering angle

### Installation advice

- Make sure that the potentiometer moves easily
- Have a look for the final studs
- Potentiometer comes with washer and mounting nut

### Technical specifications

#### Performance

Turning angle.....	
electrical.....	340 ± 3 °
mechanical.....	360 °
stop angle.....	No

Resistor tolerance..... ± 20 %

Linearity..... ± 2 %

#### Life time

Operation life..... 10 million full turns

#### Environmental data


Ambient operating range... -55 to 125 °C


Humidity..... 5 to 95 %

#### Vibration resistance

Shock.....	40 G
during a time period of	10 ms
Vibration tested at.....	12 G
with a frequency of.....	1000 Hz

#### Calibration

 Use the formula on 2<sup>nd</sup> page to calculate the physical values

 The older logger4 have 2.5V reference

#### Electrical / mechanical characteristics

Supply voltage..... 5 V

Resistance..... 10 kΩ

Output..... 0-5 V dc fixed

Dimensions (over all)..... Ø22 x 39 mm

Mounting rod..... Ø 6.35 mm

Mounting thread..... 3/8" x 32 UNEF

Weight..... 45 g

Cable.....  
 wire cross-section.. 3 x 0.08 mm<sup>2</sup>  
 type..... PUR-cable  
 length..... 1 m

Connector  
 type..... Binder 719, 5PM

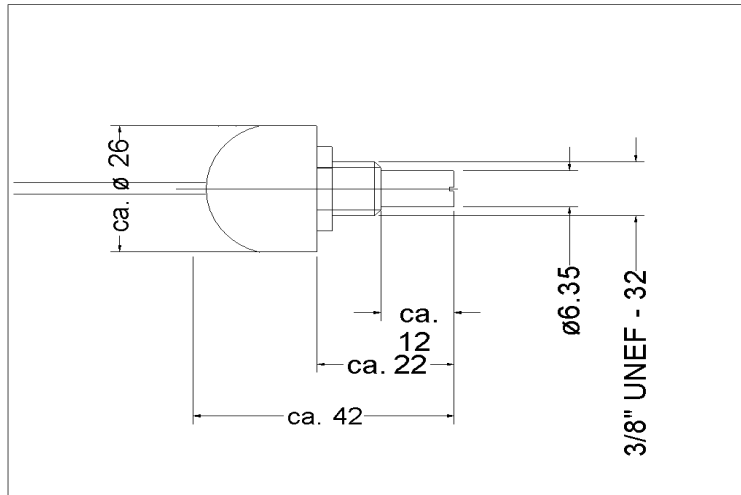
#### Ordering information

Art.No.:..... SA-APS01-000

**SA-APS01-000**

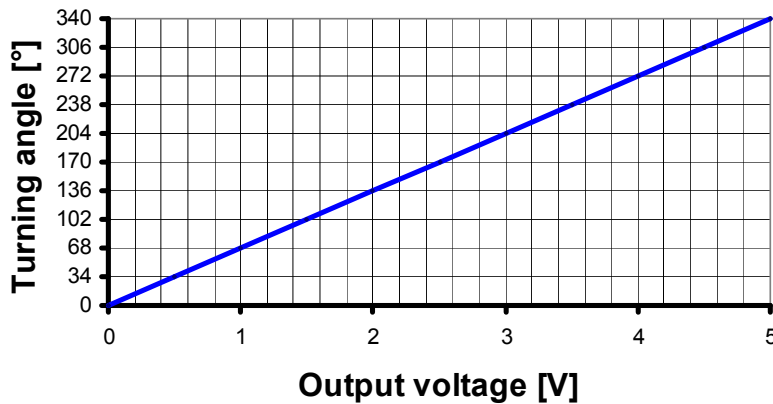
**Angle potentiometer**

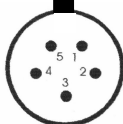
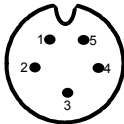
**Dimensions**



**Formula**

	SA-APS02-000	Multiplicator	Offset
12 Bit A/D	Turning Angle [°]	= 340 / 4095	* Digits - 0
16 Bit A/D	Turning Angle [°]	= 340 / 65535	* Digits - 0
Voltage	Turning Angle [°]	= 68	* Volt - 0



Connector layout					Mating plug	Connector at sensor
Analog-line Binder 719, 5pin	Pin	Name	Description	Color	 Binder 719, 5 PF (front side)	 Binder 719, 5 PM (front side)
	1	AGND	Analog Ground	black		
	2	+5V	Power supply	red		
	3	n.c.	Not connected	-		
	4	n.c.	Not connected	-		
5	Signal	Analog signal	white			



Possible options concerning cables and plugs on customer request !

Please note:

For the first order of special customer options please use the following order code: **SA-APS01-000**  
 After the first order you will get from 2D a uniquely order code for your next orders.