

# AS40 Potentiometric output – Measurement range from 90° to 3600°

## Technical characteristics:

Maximum measurement range	90° to 3600°
Output signal	Potentiometer 1kΩ
Resolution	Essentially infinite (depending on the operating system)
Material	Aluminium base and hood (RohS compliant) Stainless steel shaft
Axis diameter	10 mm
Detection element	Monoturn potentiometer, plastic film, or hybrid multiturn
Connectors	- 8-pin DIN Connector - Cable gland + cable
Standard linearity	+/- 0,25% PE (other values on demand)
Protection class	IP65 (other on demand)
Weight	≈ 200 g
Shock resistance	≤ 300m/s <sup>2</sup> (11ms)
Vibration resistance	≤ 100m/s <sup>2</sup> (10 ... 500Hz)
Operating temperature	-10° to +70°C
Storage temperature	-20° to +100°C



## Order code:

<b>AS40</b>		-		-		-		<b>OP</b>	
Sensor series									
<b>AS40</b>									
Measure range									
<b>0090</b> = 90°									
<b>0180</b> = 180°									
<b>0340</b> = 340°									
<b>1800</b> = 1800°									
<b>3600</b> = 3600°									
<b>(Other ranges on demand)</b>									
Output									
<b>R01K</b> = Potentiometer 1kΩ									
<b>(Other values on demand)</b>									
Output sense									
<b>H</b> = CW									
<b>A</b> = CCW									
Linearity									
<b>L50</b> = +/- 0.50% FS (standard for ranges up to 340°)									
<b>L25</b> = +/- 0.25% FS (standard for ranges superior than 340°)									
<b>L15</b> = +/- 0.15% FS (optional for ranges superior than 340°)									
Connection									
<b>C</b> = Male connector M16 – DIN 3 pin									
<b>L4</b> = Male connector M12 – 4 pin									
<b>K</b> = PVC cable – 4 wires + ex: <b>02</b> for cable 2 meters long									
Options <b>OP</b>									
<b>IP67</b> = Protection IP67									

Reference example: AS40-3600-R01K-H-L25-K02



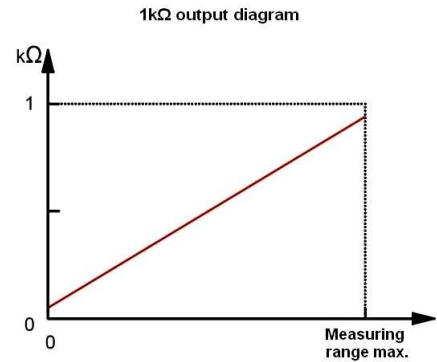
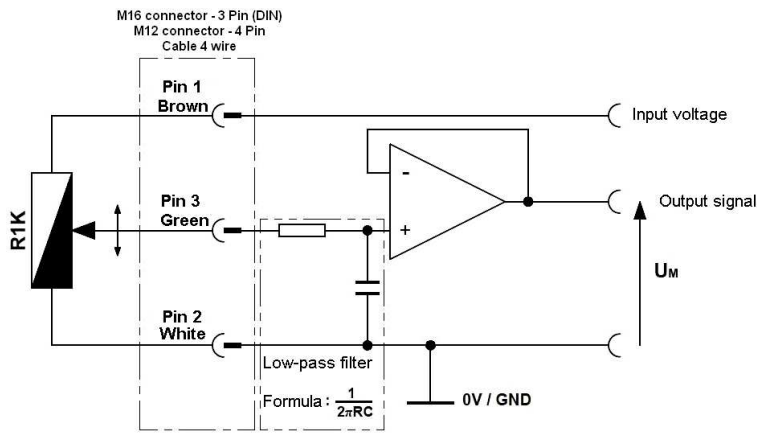
Tel : +33 (0)3 88 02 09 02 / Fax : +33 (0)3 88 02 09 03 / E-mail : info@ak-industries.com / Web : http://www.ak-industries.com

**Electrical characteristics :**

**Potentiometric version 1 kΩ :** (other values on demand)

Temperature drift ..... +/-50 ppm/°C

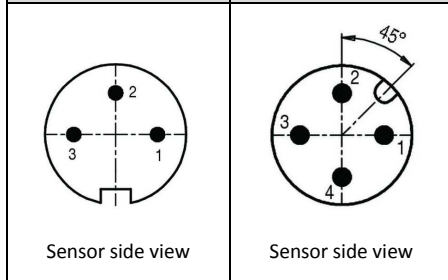
**Example of wiring diagram with input stage :**



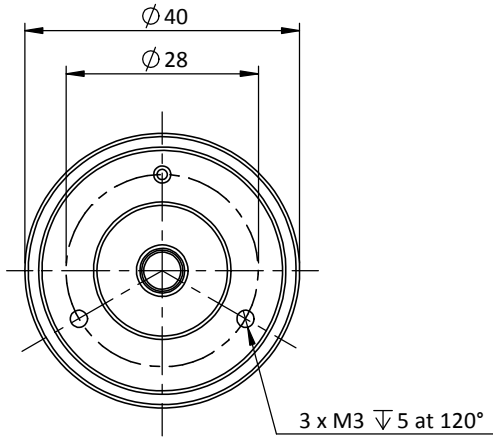
To ensure a good linearity, wire the potentiometer as a voltage divider and never as a rheostat. The input resistance of the operating system must be very high (greater than 10MΩ)

**Connection :**

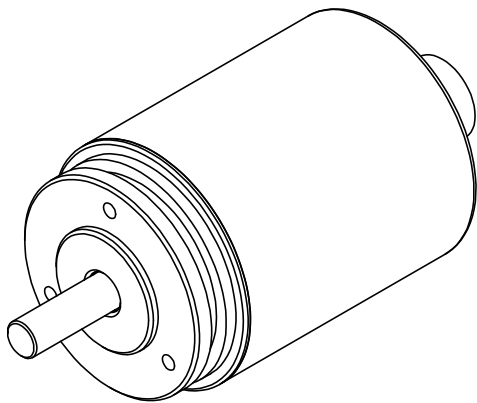
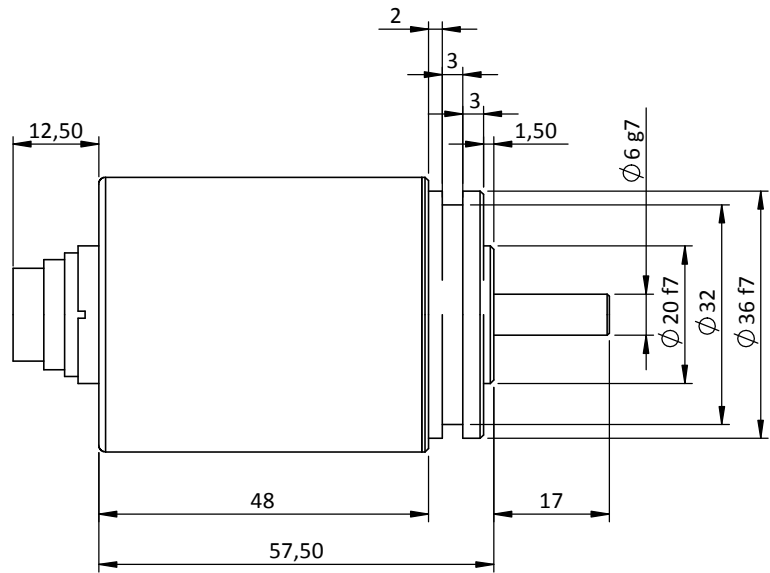
3-pin M16 Male connector (DIN)	4-pin M12 Male connector	4-wire PVC cable	R01K
1	1	Brown	Input voltage +
2	2	White	Input voltage GND
3	3	Green	Signal +



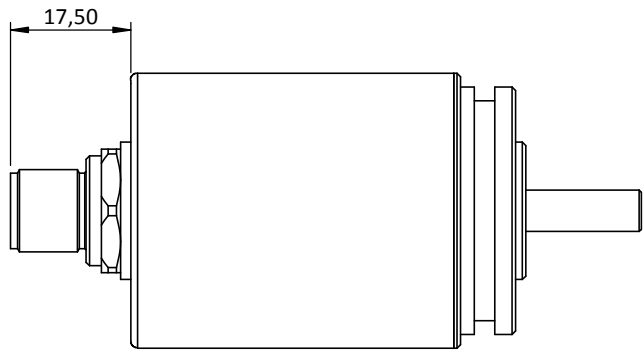
**Dimensional Drawing**



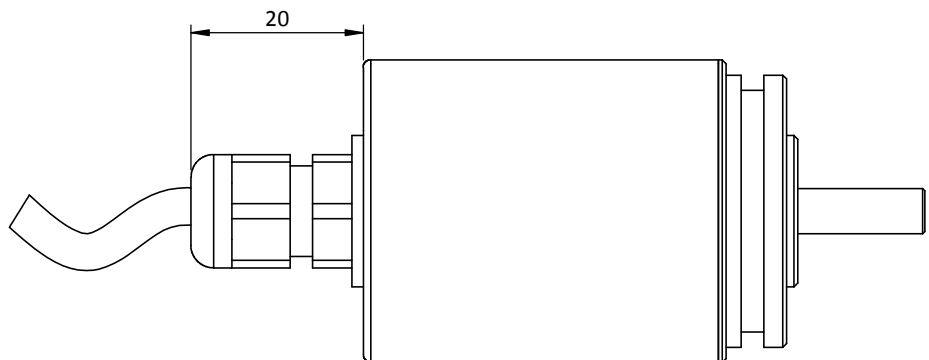
C connection  
(Connector M16 - DIN 3 pin)



L4 connection  
(connector M12 - 4 pin)

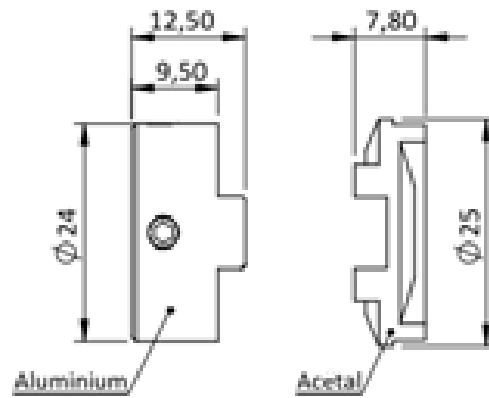
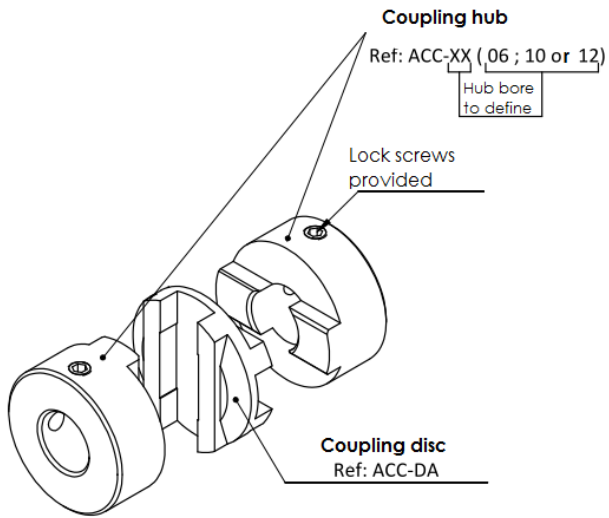


K connection  
(PVC cable - 4 wires)



Accessories

**Oldham coupling**



Reference code to order a set

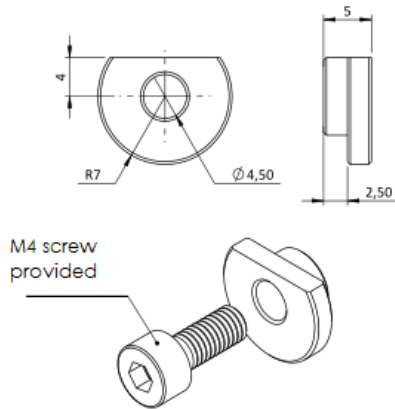
ACC-XX/XX (06/06 ; 06/10 ; 06/12 ; 10/10 ; 10/12 ; 12/12)

Hub bore to define

**Cylindrical eccentric (to mount angular sensors and optical encoders)**

Provided with a set of 4 eccentrics + 4 screws

Ref : EXC-001



Ref : EXC-002

