The AWS360 ZE combines the best qualities of modern potentiometers with on-board electronics to offer a high-precision device with a full 360° angular range. There is no dead band, as with conventional potentiometers.

The on-board electronics offers well-defined minimum and maximum output voltages. In addition, the AWS360 ZE delivers a logical output during its reset / power-up period, which can be used by the application controller to disable A/D and avoid measurement errors during that period.

Rotating the shaft clockwise results in an increase in the output voltage. Other output signal characteristics available upon request.

The anodized aluminum housing is sealed to IP65.

The AWS360 ZE is well-suited for heavy duty requirements in machine and manufacturing plant applications.
**Description**

<table>
<thead>
<tr>
<th>Case</th>
<th>aluminum, varnished, shaft passage sealed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaft</td>
<td>stainless steel</td>
</tr>
<tr>
<td>Bearings</td>
<td>stainless ball bearings</td>
</tr>
<tr>
<td>Resistance element</td>
<td>conductive plastic</td>
</tr>
<tr>
<td>Wiper assembly</td>
<td>precious metal multi-finger wiper</td>
</tr>
<tr>
<td>Mounting position</td>
<td>any optional position</td>
</tr>
<tr>
<td>Connections</td>
<td>7-pin connector, all-metal round plug, freely rotatable, 90° right angled, protection class IP 65, bayonet catch</td>
</tr>
<tr>
<td>Electrical circuitry</td>
<td>hybrid circuit integrated into housing</td>
</tr>
</tbody>
</table>

**Mechanical Data**

Dimension: see drawing

- Mounting: with 4 mounting clamps Z-4-1
- Mechanical travel: 360°, continuous
- Permitted shaft loading (axial and radial) static or dynamic force: 300 N
- Starting torque: < 10 Ncm
- Maximum operational speed: 2000 RPM
- Weight approx.: 1200 g

**Electrical Data**

- Actual electrical travel: 360°
- Absolute linearity: ±0.07%
- Repeatability: 0.002% (-0.007%)
- Effective temperature coefficient of resistance: typical 100 ppm/K
- Supply for on-board electronics (± U_ref): ±15 (±1) V
- Potentiometer supply voltage (U_ref): ±10 V
- Inhibit signal from ± U_ref to zero: approx. 50 µs
- Zero offset: < 2 mV
- Max. difference of supply voltage (U_ref): ±2 mV
- Output current: 5 mA, short-circuit protected
- Output resistance: < 0.1 Ω
- Electronic circuit current (no load): 10 mA
- Insulation resistance (250 VDC, 1 bar, 2 s): ≥ 10 MΩ
- Dielectric strength (50 Hz, 2 s, 1 bar, 250 VAC): ≥ 100 µA

**Environmental Data**

- Temperature range: 0...+70 °C
- Vibration: 10...2000 Hz, Amax = 0.76 mm, amax = 20 g
- Shock: 50 g, 11 ms
- Life: 50 million movements
- Protection class: IK 65 (DIN 400 50 / IEC 529)

**Included in delivery**

- 3 mounting clamps Z-4-1
- Right-angled plug Cannon No. CA 08 COM-E16S-1S-B
- 1 anti-kink sleeve

**Recommended accessories**

- Spring-operated backlash-free coupling Z-110-G10
- MAP process control indicators with display
- MUP/MUK signal conditioners for standardized voltage or current outputs

**Order designations**

<table>
<thead>
<tr>
<th>Type</th>
<th>P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWS-360-ZE-10</td>
<td>011061</td>
</tr>
</tbody>
</table>

![Connector pin assignment](image)