Rotary Position Sensor
in Construction Applications - Excavators
Construction Applications

- Excavators

Reliability and precision are critical considerations for an excavator operator. Accurate cab position monitoring, repeatable return-to-dig automation, and the need to function reliably in extreme environments, demands best in class measurement equipment.

The NRH27x rotary sensor from Curtiss-Wright uses industry-proven Hall-effect technology to measure angular displacement for safe machine positioning and optimisation of cycle times.

The compact, 2-piece design mitigates against misalignment-induced failure as a result of over-stressed mechanical interfaces, providing a truly non-contacting solution with minimal space claim.

### Feature Solutions from Curtiss-Wright

<table>
<thead>
<tr>
<th>Feature</th>
<th>Function</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual-redundant measurement</td>
<td>Safely measures angular position</td>
<td>Improving safety of site and operator</td>
</tr>
<tr>
<td>2-piece, separate magnet design</td>
<td>Tolerates mechanical misalignment</td>
<td>Increasing service life</td>
</tr>
<tr>
<td>Fully encapsulated electronics</td>
<td>Reliably reports position in extreme environments</td>
<td>Improving accuracy of operation</td>
</tr>
</tbody>
</table>

**Reliability**
- Non-contacting design
- Precise angular measurement
- Dual-redundant output signal

**Safety**
- MTTFd >150 years
- Dual sensor architecture
- Designed for compatibility with safety-rated systems e.g. EN13849

NRH27x Series

Boosts machine performance and runtime by enabling enhanced monitoring and control

Plays a major role in improving safety
Value to OEM Customers

Performance
- Optimisation of field-to-signal improves linearity, enhancing accuracy and facilitating machine optimisation
- Essential data for tracking machine motion, safe and accurate assisted dig, and geo-fencing functions

Durability
- IP67/69K enclosure, ensuring operation in extreme environments and reducing total cost of ownership
- Solid-state ‘fit and forget’ technology, increasing time between vehicle services and enhancing product life cycle

Easy Integration
- 9-30Vdc operating range, compatible with 12 and 24Vdc systems for ease of integration
- Flying lead fitted with industrial standard connectors for flexible and reliable connection and ease of installation

Other Applications

Lift & Access Equipment
- Reliable measurement of boom rotation/elevation and height adjustment for accurate load position monitoring and passenger safety
- Sealed, 2-piece design for continuous operation in extreme environments, mitigating against adverse performance in hostile conditions

Agricultural Equipment
- Reliable measurement of vehicle attachments such as sprayers and cutters for accurate operation of ancillary functions, improving efficiency and reducing waste
- Sealed, 2-piece design for continuous operation in extreme environments, mitigating against adverse performance in hostile conditions

Material Handling Equipment
- Reliable measurement of load position for safe and consistent operation, improving efficiency and site safety
- Sealed, 2-piece design for continuous operation in extreme environments, mitigating against adverse performance in hostile conditions

NRH27x Series Usage

Other CW Products for Excavators

- Joysticks
- Electronic Throttle Controls
- Shifters
- HMI Consoles
- Sensors
Important Information: Whilst Curtiss-Wright has designed these sensors to meet a range of applications it is the responsibility of the customer to ensure it meets their specific requirement.

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