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| **At a Glance**  ·       High-precision distance measurement up to 10 m, up to 60 m with reflector  ·       Extremely compact design  ·       Pulse Ranging Technology with repeat accuracy of ≤ 3 mm  ·       Near-range measurement from 30 mm  ·       Standardized IO-Link interface with smart sensor profile |

# Distance Sensor for Shuttles and Bots

## Compact Design and Maximum Precision up to 60 Meters

**The photoelectric distance sensors in the R200 PRT series supply precise distance data for warehouse shuttles and other self-driving systems in real-time. Not much larger than a matchbox, the devices have plenty of space even in small bots.**

The sensor uses Pulse Ranging Technology (PRT) with 250,000 laser pulses per second and a detection range of up to 60 m. The highly precise and robust signaling is not affected by strong ambient light or dark, poorly reflecting targets. Packaging and storage elements are reliably detected independently of color, reflection, and scattered light.  
  
The measurement range is not limited by the arrangement of the lens. This allows a large sensing range with a small design so that the R200 devices are significantly more compact than most conventional sensors. They measure with a repeat accuracy of ≤ 3 mm, in the near range already from a distance of 30 mm. The standardized version 1.1.3 IO-Link interface including Smart Sensor Profile enables the sensors to be integrated in Industry 4.0 environments. Device versions with an analog switching signal (0 mA–20 mA, 4 mA–20 mA, or 0 V–10 V) are available.

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| **Caption** | Hardly larger than a matchbox: R200 photoelectric distance sensor with Pulse Ranging Technology (PRT) |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_ZW5kTmRsbExRbTFIVFV0WFVVSkxOazV1Y0UxMVp6MDk&download=1> | |

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| **Caption** | Aisle monitoring and collision avoidance |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_VG5NMWIwbEZabEZwUlZScVJWcHJaelZtYWs5TVp6MDk&download=1> | |

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| **Caption** | Pallet positioning and protrusion monitoring |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_WkdnMWFqTktOelZSUjNncmVFdEpORVp1T1ZSQ2R6MDk&download=1> | |

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| **Caption** | Pallet positioning and protrusion monitoring |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_TUdSMWNEUm1kbTQwZW5aSk5tTkJiRVZFWjNRNVVUMDk&download=1> | |

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| **Caption** | Mounting positions for various applications on the shuttle |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_ZVcxTE16QjNkRkZLT0dZNVVWWkhWVXRWVkVZeFp6MDk&download=1> | |

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| **Caption** | Rough positioning of the shuttle |
| **Download URL**  <https://myconvento.com/public/get_file.php?id=enc2_TW1Wc1dUQnVRalZvY0ZaTksycFBOakZsVW5kWVFUMDk&download=1> | |

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