



## T30R Series

Detecting Where Others Cannot

- Robust, longer range alternative to ultrasonics
- More precise and reliable alternative to traditional 24 GHz radar
- Easy set up – Simple integration

**Need Application and Technical Support?  
Contact the Experts at Ramco Innovations**

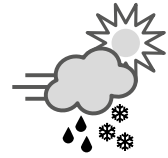


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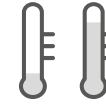
# Bridging the Gap Between Ultrasonics and Radar



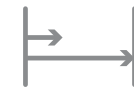
## Robust, Longer Range Alternative to Ultrasonics



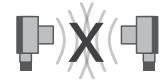
- Ideal for outdoor applications**
- Resistant to rain, snow, fog, steam, or sunlight
  - IP67-rated



- Temperature stability**
- Radar (radio waves) not affected by temperature changes like Ultrasonic (sound waves)
  - Consistent measurement from -40 to 65 °C



- Detect near or far**
- Sensing range of 150 mm to 15 m



- No crosstalk**
- No problem mounting multiple sensors close together

## More Precise and Reliable Alternative to Traditional 24 GHz Radar



- Accurate measurement**
- Linearity and repeatability less than 1 cm

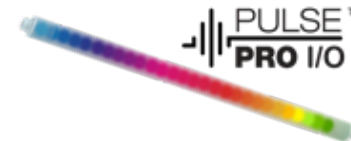


- Senses more objects**
- 122 GHz radar detects a wider range of low dielectric materials to solve more applications

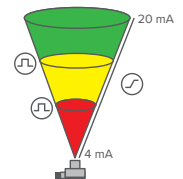
## Easy Set Up – Simple Integration



- Flexible set-up and Configuration**
- Optional PC Configuration, push buttons, IO-Link or remote teach



- Direct integration with Banner lights**
- No separate controller needed



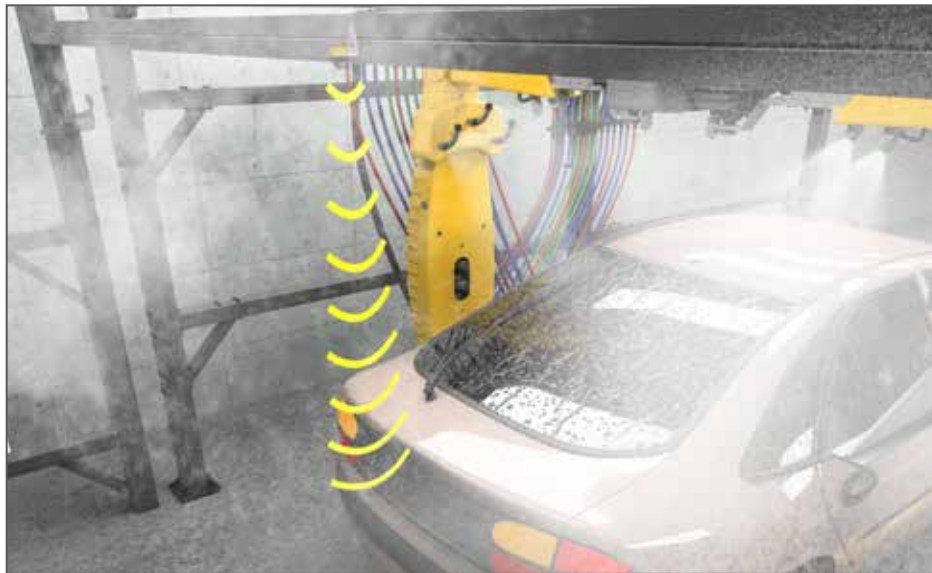
- Solve more applications**
- Dual discrete outputs for slow and stop
  - Analog and IO-Link for absolute measurement values

	Range	Dead Zone	Outdoor Robustness	Measurement Precision	Crosstalk Immunity
Other Banner Radar (24 GHz)	✓		✓		✓
T30R (122 GHz)	✓	✓	✓	✓	✓
Ultrasonics		✓		✓	



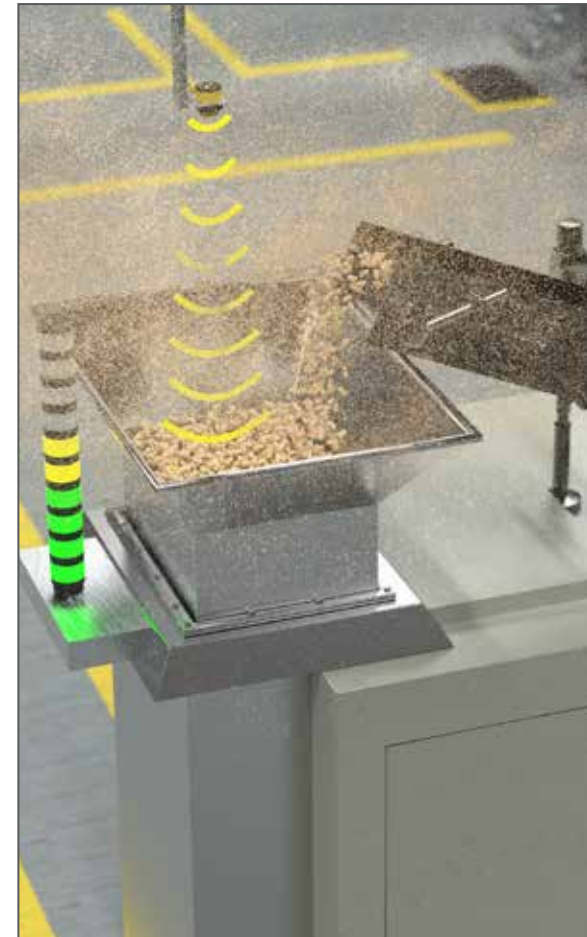
### Provide Reliable Position Feedback

Dual Discrete outputs are available for slow and stop positions for port equipment such as reach stackers and container handlers. Analog and IO-Link outputs are also available for absolute distance measurement values for ground support equipment such as baggage handlers or de-icing vehicles.



### Reliable Vehicle Detection in Challenging Environmental Conditions

Banner radar is resistant to rain, wind, and snow and has a wide operating temperature making it ideal for vehicle detection at loading docks, tolls, gates, and car washes.



### Challenging Level Management

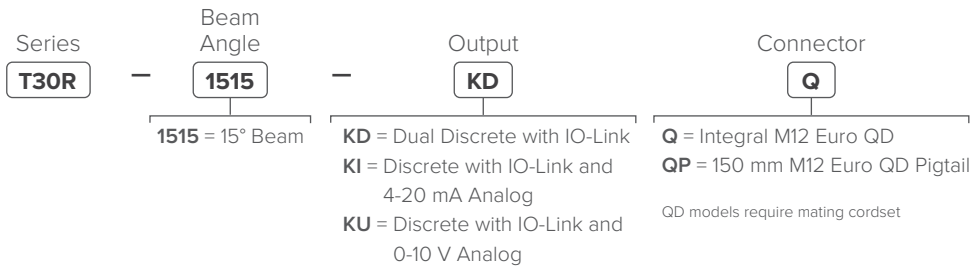
The T30R can see through steam, dust, and debris build up on the sensor face where ultrasonics may struggle. Banner's T30R also measures up to 15 m for larger tanks where ultrasonic range isn't sufficient.



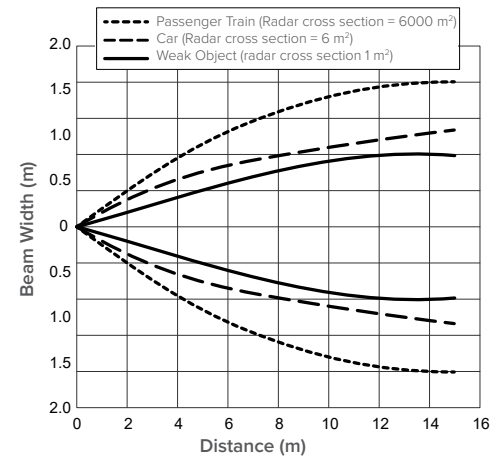
Pulse Pro output for direct integration with Banner lights. Direct process feedback which only requires power; no controller needed.

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## T30R Radar Sensor



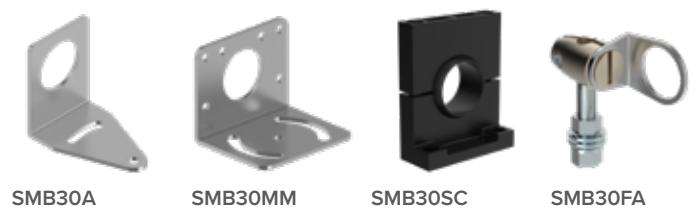
## Specifications



<b>Range</b>	Detection Range: 0.15 to 15 m (0.5 to 49.2 ft) Measurement Range: 0.3 to 15 m (1.0 to 49.2 ft)
<b>Linearity*</b>	< ±4 mm
<b>Repeatability**</b>	< 1 mm
<b>Response Time</b>	Analog Update Rate: 2 ms Discrete Output Response: 6 ms

\* At ranges > 0.5 m, from 0.3 to 0.5 m, linearity < ±15 mm  
\*\* Repeatability < 10 mm at Excess Gain < 10x

## Accessories



**Euro-Style**  
Straight connector models listed; for right-angle, add RA to the end of the model number (example, MQDEC2-506RA)

- 5-Pin**
- MQDEC2-506  
2 m (6.5')
  - MQDEC2-515  
5 m (15')
  - MQDEC2-530  
9 m (30')

- 5-Pin Double-Ended**
- MQDEC3-506SS  
2 m (6.5')
  - MQDEC3-515SS  
5 m (15')
  - MQDEC3-530SS  
9 m (30')



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