

# MULTI-ZONE VEHICLE AND BICYCLE DETECTION

ICOMS TMB-133  
ICOMS TMB-134



**All-in-one radar sensors designed for more efficient and reliable detection at multi-lane traffic intersections.**

With a range of 70m, these powerful microwave-based devices enable effective detection for up to 4 lanes, including left and right turn lanes.

- ✓ TMB-133 - detects up to 3 customisable zones
- ✓ TMB-134 - detects up to 9 customisable zones
- ✓ Fast, easy, safe installation
- ✓ Maintenance-free
- ✓ Performs 24/7 in all lighting and weather conditions

## HOW THEY WORK

The ICOMS radar detectors allow the user to define up to nine virtual loops for the TMB-134 and three virtual loops for the TMB-133, all activated by vehicles and bicycles, including carbon framed bikes. The detection areas can be configured in their individual lanes as presence areas. The virtual loops are activated until the object leaves the zone.

### LOW POWER CONSUMPTION :

As microwave-based sensors, the power requirement is minimal - typically 6-7 watts compared to 12 watts for camera-based detectors.

### MINIMAL CARBON FOOTPRINT :

Above-ground detection systems are efficient to install and require no wasteful roadworks or building materials. Along with their low power requirement, the ICOMS TMB-133 and 134 offer highly sustainable detection solutions.

### LONG DETECTION RANGE :

Detection coverage is exceptional with a range of up to 70 metres.

### RELIABLE 24-HOUR DETECTION :

Unlike camera systems that require higher light levels, the ICOMS TMB-133 and 134 radar detectors perform effectively day and night, even without street lighting.

### ALL WEATHER CONDITIONS :

The ICOMS TMB-133 and 134 radar detectors are unaffected by poor weather conditions, operating effectively in rain, sleet, snow and fog.

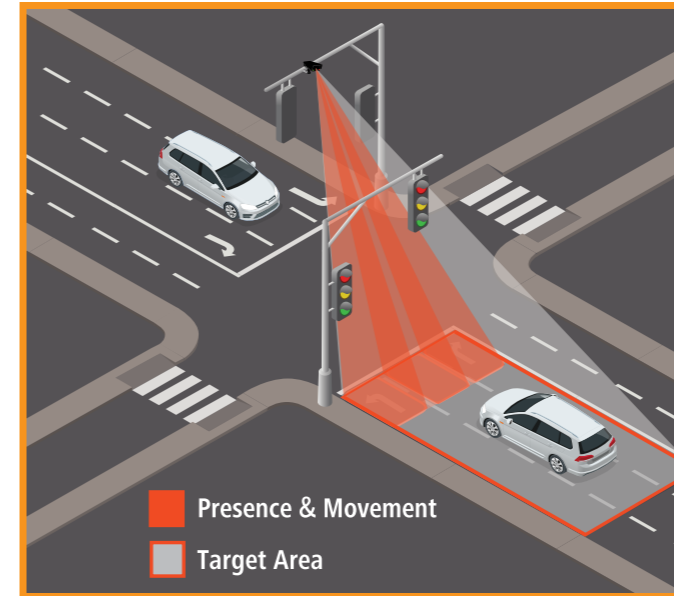
## WHY RADAR?

As an above ground detection system, CT Technology's ICOMS radar detectors deliver some important advantages over conventional inductive loop systems:

- **QUICK, EASY, SAFE INSTALLATION :**  
Installed directly onto traffic signals or adjacent poles, radar sensors can be set up in less than an hour. No roadworks, no disruption. Simple roadside installation also keeps traffic engineers safe.
- **COST EFFECTIVE :**  
Radar requires none of the expense or material waste incurred by the roadworks for embedded loop system and so are a fraction of the cost.
- **MAINTENANCE-FREE :**  
Once set up, there is no lens cleaning or maintenance checks required.
- **SUSTAINABLE :**  
Radar requires minimal power and offers waste/pollution-free installation.

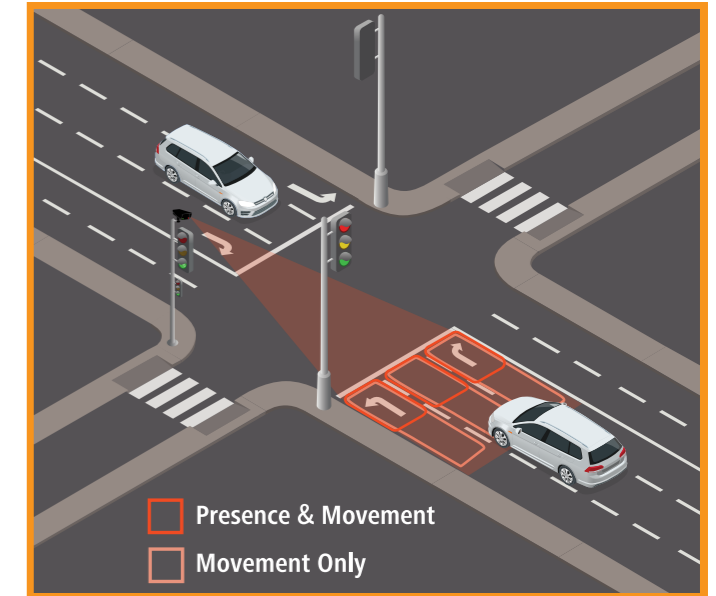


## TMB-133 - 3 ZONES



- 1 single radar to replace up to 3 inductive loops
- Turn right/turn left detection
- Stop-line presence

## TMB-134 - 9 ZONES



- 3 presence & moving zones
- 3 moving vehicle zones
- 3 traffic phases

## WHY ICOMS RADAR ?

### PROVEN AND RELIABLE :

- 1000's of ICOMS radars successfully installed worldwide since 1993

### EASY TO USE AND INSTALL :

- Delivered ready to install, including cable, fixing support, screws and bolts
- Detachable cables enable simple 'plug-and-play' set up

### SETTING CAPABILITY :

For each detection area/virtual loop :

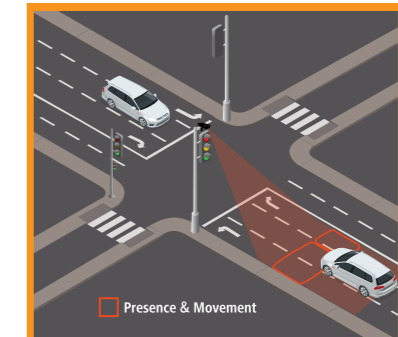
- Size and position
- Function



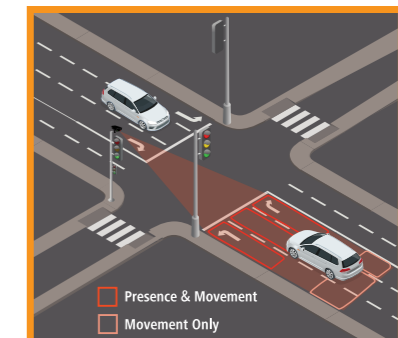
STANDARDS

- Directive 2014/53/EU

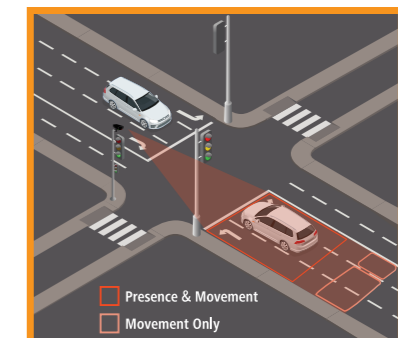
## TMB-134 - OTHER USES



- 2 SCOOT zones at 65m from the stop line (2 lanes & 1 lane)



- 3 presence & moving zones
- 2 UTC count logic loops
- 3 traffic phases



- 1 presence & moving zone 40m long
- 2 UTC count logic loops

# TECHNICAL DATA

|   | TMB-133-L   | TMB-133-M        | TMB-133-H   | TMB-134-L                        | TMB-134-M        | TMB-134-H   |
|---|---|------------------|-------------|----------------------------------|------------------|-------------|
| Recommended configuration                   | Min 14m from stop-line (at the opposite side of the intersection) |                  |             |                                  |                  |             |
| Number of detection zones                   | 3 detection zones   |                  |             | Up to 9 detection zones          |                  |             |
| Detection direction                         | Approaching   |                  |             |                                  |                  |             |
| Detection range                             | Up to 70m / 230ft from the installation point                     |                  |             |                                  |                  |             |
| Maximum detected speed                      | 99 km/h / 66mph   |                  |             |                                  |                  |             |
| User input                                  | Wi-Fi with web-based graphical interface                          |                  |             | Wi-Fi and USB via relay card     |                  |             |
| User output                                 | 3 relays  |                  |             | RS-485 + 9 relays via relay card |                  |             |
| Power supply                                | 8-30 VAC  | 15-53 VAC        | 100-240 VAC | 8-30 VAC                         | 15-53 VAC        | 100-240 VAC |
|   | 10-60 VDC   | 21-75 VDC        | 50-60 VDC   | 10-60 VDC                        | 21-75 VDC        | 50-60 VDC   |
| Power consumption                           | <6W   |                  |             |                                  |                  |             |
| Environmental protection                    | IP65  |                  |             |                                  |                  |             |
| Dimensions (excluding bracket)              | 68 x 99 x 151 mm  | 68 x 99 x 234 mm |             | 68 x 99 x 151 mm                 | 68 x 99 x 234 mm |             |
| Weight (without cable and mounting support) | 0.45 kg   | 0.60 kg          | 0.63 kg     | 0.45 kg                          | 0.60 kg          | 0.63 kg     |
| Mounting systems                            | Specific mounting system supplied, adapted for M8                 |                  |             |                                  |                  |             |
| Frequency                                   | W-Band: 76-77 Ghz   |                  |             |                                  |                  |             |
| Operating temperature                       | From - 40°C to + 60°C   |                  |             |                                  |                  |             |

**“ Having installed three TMB-134 radar detectors, we found the installation straightforward and configuration very easy with the new Wi-Fi based user input ”**

Local Authority Engineering Team in Scotland

## COMING SOON

ICOMS detection systems are continually being developed to further their capabilities and features. Future developments coming soon include :

### TMB-133

- Extended range to 120m
- Reduced minimum offset - 3m
- Moving / presence - All zones

### TMB-134

- Extended range to 120m
- Reduced minimum offset - 3m
- RS-485 - Count / Length / Speed  
Presence detection up to 50 meters
- Bicycle differentiation based on length

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