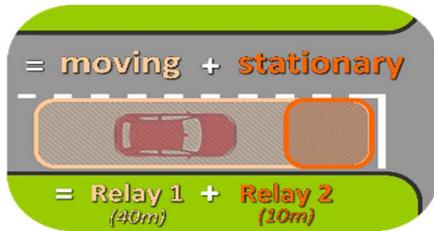




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# 1 INTRODUCTION



/ stopped vehicles, and the ability to detect normal moving vehicles 40m back from the stop line.

1.1 The purpose of this paper is to demonstrate the performance of the ICOMS ITVP-2 vehicle detector and the results of a trial site installed by C&T Technology Ltd in partnership with Lancashire County Council. Lancashire are looking for a cost effective solution to the problem of detecting cycles and slow moving

1.2 We can of course understand that for many of you this report can't be considered as a neutral report and therefore invite you to confirm those results by getting a trial unit to start your own tests and build your own experience

## 2 TECHNOLOGY

2.1 The detector is a non-intrusive radar detector designed to replace loops and is based on the Doppler effect combined with the use of an FSK modulation (Band K radar).

2.2 The ITVP-2 is designed to be used on a single lane approach to a traffic signal stop line. The trial site lane width is 5.5m

2.3 There are two relay outputs available one for the 40m zone and one for the stopped vehicle. These can be N/O or N/C. One activates when a vehicle moves in a 40m area before the traffic signal pole. The second relay activates when a vehicle moves or stops in an adjustable area (8, 10, or 15m) before the traffic signal pole.

2.4 The set-up is completed by using a thumbwheel switch which is accessible without removing any covers. No software is required.



### 3 INSTALLATION

3.1 Site Location: Watkin Lane / Jubilee Road, Lostock Hall, Lancashire.

3.2 Watkin Lane is a busy road and is adjacent to 2 other MOVA sites. The approach lanes are quite wide which is one of the reasons why this location was chosen to test the capability of the detector. The controller is a PTC-1, with MOVA running on a Dynniq Chameleon.



3.3 The detector was mounted on a primary 4m pole. We would normally mount the detector in the same position as a conventional MVD but there is an access point already installed on the signal head top bracket. We fitted a 4 in line top bracket where a far sided pedestrian head would be mounted. This gave us a good line of sight.

3.4 Aiming the detector was relatively strait forward as there are markers on the detector mounting bracket that guide you.

3.5 The wiring was again strait forward. This demo unit did not have a plug fitted, but the colour codes match the existing UK detector equipment, plus three extra colours for the N/O, N/C output and common for the second relay. New units will have the Bulgin connector as it is already the case for the TM60 MVD.



### 4 COMMISSIONING

4.1 It really was as simple as aligning an MVD. The method we used to check where the 8m zone was to wait until there was a low flow of traffic and check when the relay was activated with a meter. This took less than 5 minutes to complete. The 40m Zone was checked by watching the LED.



## 5 TRIAL

- 5.1 Lancashire County Council have a Siemens in-station so obtaining counts via the RMS was not possible. However, trials on other completed by ICOMS have shown that the detector is extremely reliable.
- 5.2 We mounted a video camera on a lamp post about 20m back from the stop line, and set it to record from 7am to 7pm. The camera was installed for 6 days. This provided us with the ability to search for unique scenarios. This could be a lone cyclist riding up the signals in a conventional way, or preferably a cyclist entering the stop line zone from off the footway.



## 6 CONCLUSION

- 6.1 Initial observations were very positive. Traffic was being detected correctly and cycles were also observed to be detected. We checked the relay outputs and ensured they were operating as you would normally expect.
- 6.2 The video footage has been reviewed and again there have been very positive scenarios observed and this will be presented at the JCT symposium.

## 7 ABOUT US

### C&T Technology Ltd

C&T Technology is new company but have over 25 years' experience of Intelligent Transport Systems in the UK & Ireland.

We have built up an extensive network of clients and suppliers covering a wide range of projects in the urban and inter-urban sectors

Our mission is to work with Local Authorities, understand their issues, and find viable solutions.



We are now a UK and Ireland distributor for ICOMS providing long term support for their products.

## **ICOMS DETECTIONS**

ICOMS Detections SA develops, manufactures, and supplies microwave sensors for Junctions, Crossings, Warning Signs and Data collection.

Thanks to 22 years' experience and thousands of radars supplied worldwide, ICOMS Detections is considered as a respected partner and supplier in the ITS industry.

Quality, long term business relationships, flexibility, continuous communication between its suppliers, partners and customers, allow the company to supply market-minded products and therefore allow your company to propose a very flexible and adapted solution to your customers.

For a user guide and brochure come to our stand at JCT or email us at:

[info@ct-technologyinfo.com](mailto:info@ct-technologyinfo.com)

