

**MAKING THE  
MESSAGE  
CLEAR**

# LED LIGHTWEIGHT SIGNAL SYSTEM

A totally new approach from VMS has produced a system of super lightweight signals and structures that deliver both high performance and significant cost savings.

Complying to all Standards and Requirements, the lightweight signals - 3 aspect CLS weighs only 15Kgs - which require no routine maintenance and are backwards compatible, can be mounted on existing infrastructure or to VMS lightweight support structures that are quickly and simply installed without machinery.

Structures are offered from 3.3m signal height for cress-mounting to 5.1m for inter-track applications.



*Pelaw, Tyne & Wear, trial site*

## Lightweight Signals - the requirements and aims

### Primary drivers

- Reduced initial provision costs - installation and infrastructure
- Installed and maintained quickly and with minimal operational interference
- Installed and maintained without plant equipment using people and people-operated 'tools'
- Minimal maintenance (ideally only security inspections)
- Minimum footprint
- Minimum kinematic envelope for 'inter-track' applications

### Scope

- Initially targeting Modular Programme
- Now also - New Renewal Programmes and Maintenance Replacements
- All structure heights up to 5.1m

### Standards

- As mandated – test conventions, best practices and non-mandatory requirements

### Maintenance

- None expected (normally)
- Clean if required without climbing the structure

### Alignment

- Setting and beam checking without climbing

### Repair

- Minimal number of standard parts
- Easy transportation and handling

### Configuration

- Minimal number of part numbers / units
- Modular units to obtain configuration

### Performance

- 24v (5m tail) and 110v (1800+m tail)
- Meet current LED light levels, readability, availability and life expectancy
- Backward compatible to existing and new system requirements
- Health Checks

## LED LIGHTWEIGHT SIGNAL SYSTEM



### PLJI

- Weight; 20Kgs (1&4), 15Kgs (1/4)
- 1130mm (h) x1650mm (w) pos 1&4
- Post or conventional "A" frame mounting

### CLS – 1 to 4 aspects

- Weight; 15Kgs (3), 20Kgs (4)
- 400mm x 600mm (3);  
950mm x 600mm (4)
- Post or conventional footprint mounting

### PLS

- Weight; 15Kgs
- 300mm x 320mm
- Post or conventional mounting

### MARI & SARI

- Weight; 15Kgs & 20Kgs
- 500mm x 320mm & 600mm x 600mm
- Post or conventional mounting



*Pelaw conventional mounting*

## The system provides a universal electrical and mechanical interfacing capability

### Modular

- Signals mounted "modular" lightweight structure
- Powered from 24Vdc or 110Vac
- Volt-free contact "signal functioning" reporting

### New renewals projects

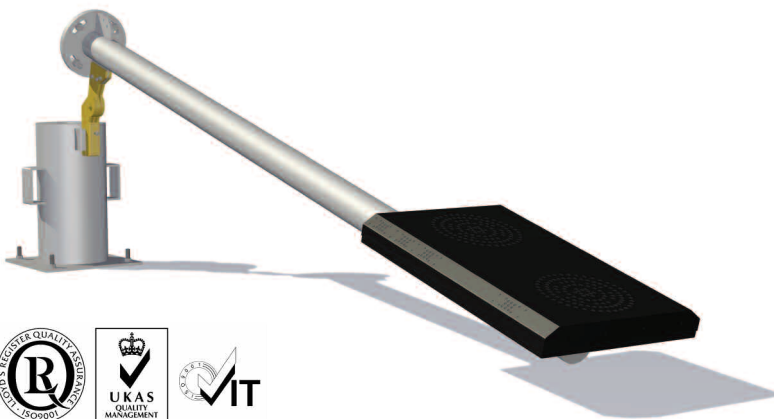
- Signals mounted on "modular" lightweight structure or conventional style structure
- Powered from 110Vac
- Volt-free contact or conventional current sensing "signal functioning" reporting

### Existing signal (maintenance) replacement

- Signals mounted on existing conventional style structure
- Powered from 110Vac
- Current sensing "signal functioning" reporting



*Warrington and Pelaw trial sites*



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