



# Wayside Signal

by Unipart Dorman



## Way Ahead in Signaling

Modernize your Wayside signal assets with enhanced performance, reliability and safety, subsidized through reduced system operational costs.

For the first-time operators have the choice of upgrading to a complete new signal head or a plug and play family of single and tricolour 12V LED modules that will fit into any existing signal housing, link to any existing interlocking, with no change of wiring for all types of existing incandescent signals. All backed by the Unipart Dorman proven LED Signal track record.

Unipart Dorman's Wayside SearchLITE, ColorLITE and LEDMech\* signal series have been developed with close industry collaboration to provide a unique solution. The LED light sources deliver innovation with universal value, provide a long and predictable life, giving huge benefits to railroad operators.

## Product Features

### Safety

The reliability of the Wayside series is based upon design excellence developed over 30 years of supplying LED Signals into the UK railway sector. The signals are fully compliant with AREMA C&S requirements.

### Cost Effectiveness

LED Technology will instantly reduce costs associated with maintenance, servicing and spares holding driven by virtually removing both pre-planned and reactive maintenance activity (filament lamps). There is a further opportunity to reduce maintenance activity to zero by using the self-cleaning outer lens cover.

### Construction

The front outer cover is manufactured from high impact polycarbonate that has a UV resistant hard coating to reduce scratching due to cleaning operations. Also available is a self-cleaning outer cover that reduces debris and snow build up. The rear of the housing is manufactured from an aluminium casting that incorporates a heatsink, pressure vent and sealed plug coupled connection. This design gives greater control of the environment within the signal module, that prolongs the operational life of the signal.

### Lamp Proving

The Wayside Signal Module is designed to be compatible with all interlocking controllers and does not require any software or circuit design modification to install. The units are capable of interfacing to systems that have both Hot and Cold Filament Tests and also Light Out detection. The unit has been successfully tested already on the following 12v interlocking systems:

- AC Relay
- AC Relay with DC bias
- EC4
- iLOK
- MicroLOK 2
- VHLC
- ElectrologXS.

*Others will follow when tested.*

## Benefits

Requiring no change to the existing infrastructure signal housings, wiring or interlocking, the Wayside series has been designed to plug and play both mechanically and electrically into all known existing signal types to allow operators to benefit from:

- Unipart Dorman track record incorporated into design
- Slim Profile Retrofits into all existing signal housings, no specials for tricolour, exact same foot print
- LED technology gives a long and predictable service life allowing for extended life of current assets
- AREMA+ thermal shock tested to replicate and exceed real field temperature extreme variations
- Performance Improvements for existing assets including enhanced safety and reliability
- Multiple Interlocking compatible, cold and hot proving with patented technology
- Plug and Play connection for all types including mech signal retrofits, no change of existing wiring
- Cost Reduction in Asset Operation and Maintenance
- Modernization of infrastructure subsidized through operational cost savings
- Phantom signal reduction
- Competitively priced with realistic up cost for tricolour over single colour

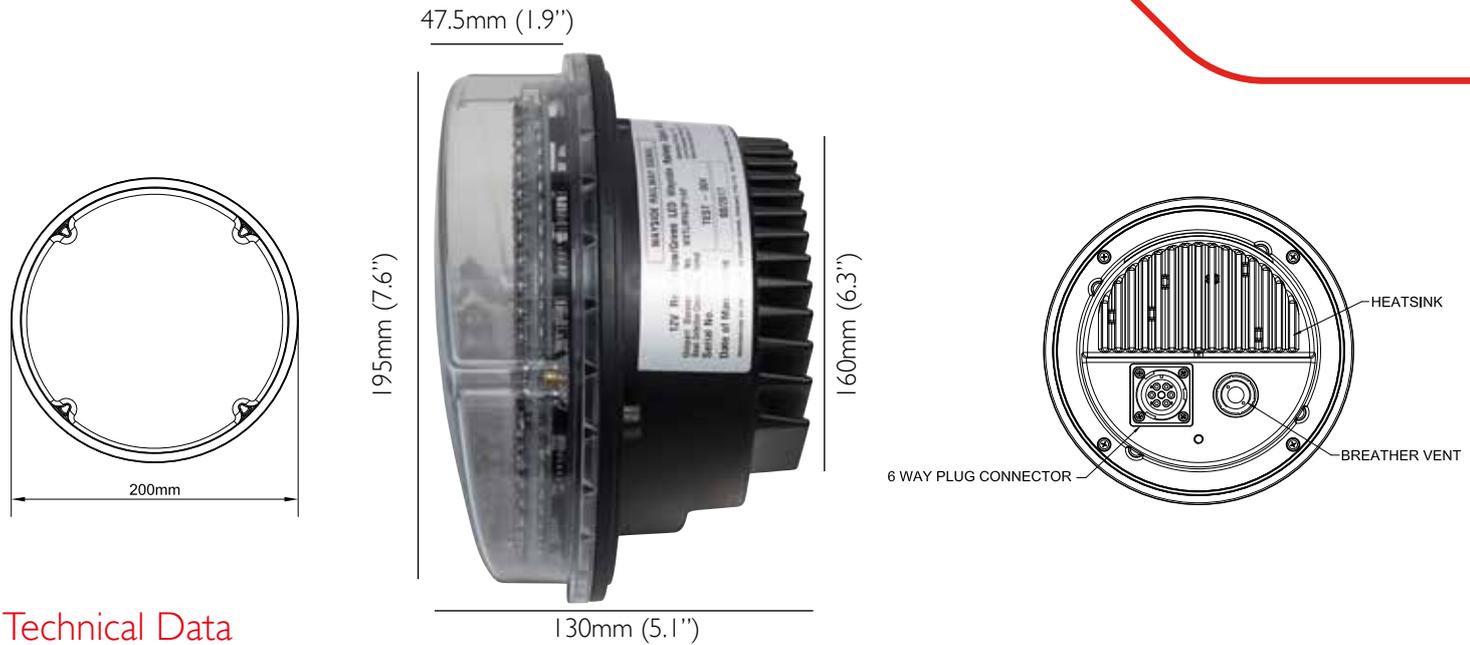


The units are available in both medium and long range variants and suit all railroad wayside signal applications:

ColorLITE series:	Single Color - Red, Yellow and Green single colors with single wire and ring terminal connection
SearchLITE series:	Tri-color - Red, Yellow and Green colours from a single aperture, with MIL 5015 plug coupled connection to AAR terminals
LEDMech series*:	Mechanical Searchlight - Red, Yellow and Green colors from a single aperture, with US&S H2 type or GRS SA-1 type plug coupled connection to an LEDMech interface module made specifically for the application

*\*Currently under development - available in 2018*

## Product Drawings



## Technical Data

Technical Data	Compliance
Nominal supply voltage	12VDC or AC
Supply voltage range	8.0-16.0V
Nominal current @ 12v	Greater than 1100mA
Storage temperature	-55°C to +85°C
Operating temperature	-40°C to +70°C
Vibration	AREMA 11.5.1 D4 Class B
Shock	AREMA 11.5.1 D5 Class B
Ingress	NEMA 250-1991 Enclosure 4 - EN60529 IP65
EMI	AREMA 11.5.1 D6
Dielectric strength	AREMA 11.5.1 D7 Class B
Colours	AREMA 7.1.10
Luminous intensity Long Range (5000ft)	LED Signal Module Purchase Specification
Luminous intensity Medium Range (2000ft)	LED Signal Module Purchase Specification
Hot Filament Test	AREMA 7.1.5 B1
Cold Filament Test	AREMA 7.1.5 B2
Light Out Detection	AREMA 7.1.5 B3

Wayside Series	Module Options	Long Range UD Part No	Medium Range UD Part No
ColorLITE	Single Colour Red, 12v, Pulse Proved, Standard outer cover, Free Wired Connection	WSCL/R--/3PI/AF	WSCM/R--/3PI/AF
ColorLITE	Single Colour Yellow, 12v, Pulse Proved, Standard outer cover, Free Wired Connection	WSCL/Y--/3PI/AF	WSCM/Y--/3PI/AF
ColorLITE	Single Colour Green, , 12v, Pulse Proved, Standard outer cover, Free Wired Connection	WSCL/G--/3PI/AF	WSCM/G--/3PI/AF
SearchLITE	Tri-Colour RYG, 12v, Pulse Proved, Standard outer cover, Plug Coupled Connection	WSSL/RYG/3PI/AP	WSSM/RYG/3PI/AP
LEDMech	*Currently under development - available in 2018	-	-

Please refer to the order information sheet for details of the full range and individual product codes.

The variables include: Dwarf and Long Range, Voltages, Proving Types, Outer Covers and Connections and other LEDMech Housing types

\*Please note when ordering modules for retrofit, user to confirm housing type to enable correct clamping bracket kits to be specified.

## About Unipart

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence. Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

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