

EN12966 L Series VMS

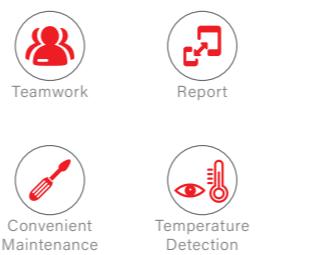


Application

The variable message sign is a useful medium to alert motorway users when there are abrupt changes in traffic patterns, road conditions, emergencies, or special events. The application of VMS on road can improve traffic flow while ensuring the safety of drivers and passengers. Variable message signs are ultra-bright and highly legible, with a variety of functions for many applications: lane closure, highway construction, work zone, parking lot guidance, etc. A combination of different colors and sizes makes these signs extremely efficient in conveying safety messages to road users.

Feature

- The embedded system can perform constant diagnosis and report any abnormal status to the central system
- The VMS can be monitored by our proprietary central management system
- ChainSpot®** which is developed independently by Chainzone's R&D team
- The excellent LED optical system meets EN12966 standards and provides the highest optical performance
- The LED beam can be precisely projected to the road surface
- A wide range of pixel pitch options from 12mm to 31.25mm, adaptable to any application
- SMD LED technology, better color mixture and uniformity
- Modular design for easy maintenance
- Integrated light sensor for automatic control
- The integrated sensor can monitor cabinet temperature
- Easily programmed and more advanced functions for users' options



Specification

VMS L-Series

Model	VMS20L-RGB	VMS25L-RGB	VMS31.25L-RGB
Pixel Pitch (mm)	20	25	31.25
Module Resolution (pixels)	8x16	8x16	8x8
Size of Module (mm) (HxW)	160x320	200x400	250x250

Optical Characteristics

Conformity	EN12966 Standards & NEMA TS4
Luminance	L3/L3(*) (Red > 3100 cd/m ² , Green > 3720 cd/m ² , Yellow > 7440 cd/m ² , White > 12400 cd/m ²)
Luminance Ratio	R3
Color	C2
Beam Width	B1, B2, B3, B4, B5, B6 (±15° horizontal & -10° vertical down), B7 (±30° horizontal & -20° vertical down)
Brightness Control	100 Levels

Physical Characteristics

Enclosure Material	Aluminum
Enclosure Surface	Powder Coated, Matte Black (Other Colors Available)
Working Temperature	T1 (-15°C ~ +60°C), T2 (-25°C ~ +55°C), T3 (-40°C ~ +40°C)
Humidity Range	RH<95%
Resistance to Pollution	D3
Ingress Protection Class	IP54, IP56, IP65, IP66
Maintenance	Back Maintenance

Electrical Specifications

Power Supply	90 ~ 260VAC (50/60Hz)
Solar Power System	12/24 VDC
Communication	RS232 / RS485 / Ethernet Via RJ45 / GPRS / 3G / 4G / 5G / Optic Fiber
Protocol	NTCIP 1203 / MODBUS / UTMC / XML / Jetfilell / Profibus / RSMP / HTTP / API
EMC / FCC Certification	Compliant with EN50293, FCC Part 15B:2017, ICES-003:2016
Certification	EN12966, ETL, CETL

EN12966 M Series VMS



Feature

- SMD LED technology, better color mixture and uniformity
- Modular design for easy maintenance
- Integrated sensors for temperature and brightness detection
- Chainzone's ball-shaped lens composition
- The reflection of light is greatly reduced, ensuring high contrast ratio and delivering more clear images. Comprehensive color management technology, excellent display quality.
- The embedded system can perform constant diagnosis and report errors to the central system.
- The VMS can be monitored by the central management system **ChainSpot®** which is developed independently by Chainzone's R&D team

Visual Performance

- High luminance ratio of LED modules

Chainzone's modular design with ball-shaped optical lens achieves higher Luminance Ratio by reducing sunlight reflection and increasing luminance output. Thus, VMS can reach L3 & R3 class at very low power consumption.

- Unique rear design: fast and better heat dissipation in VMS

The heat generated by electronic components on the circuit boards is dissipated to open air directly. Extraordinary thermo-stability and environment-adaptability. High IP Level.



Continuous Diagnosis



Report



Teamwork



High Contrast Ratio



Convenient Maintenance



Temperature Detection



Specification

VMS M-Series

Model	VMS10M-RGB	VMS12M-RGB	VMS16M-RGB	VMS20M-RGB
Pixel Pitch (mm)	10	12	16	20
Module Resolution (pixels)	12x24	16x32	8x16	8x16
Size of Module (mm) (HxW)	120x240	160x320	96x192	128x256

Optical Characteristics

Conformity	EN12966 Standards & NEMA TS4
Luminance	L3/L3(*) (Red > 3100 cd/m², Green > 3720 cd/m², Yellow > 7440 cd/m², White > 12400 cd/m²)
Luminance Ratio	R3
Color	C2
Beam Width	B1, B2, B3, B4, B5, B6 ($\pm 15^\circ$ horizontal & -10° vertical down), B7 ($\pm 30^\circ$ horizontal & -20° vertical down)
Brightness Control	100 Levels

Physical Characteristics

Enclosure Material	Aluminum
Enclosure Surface	Powder Coated, Matte Blank (Other colors available)
Working Temperature	T1 (-15°C ~ +60°C), T2 (-25°C ~ +55°C), T3 (-40°C ~ +40°C)
Humidity Range	RH<95%
Resistance to Pollution	D3
Ingress Protection Class	IP54, IP56, IP65, IP66
Maintenance	Back Maintenance

Electrical Specifications

Power Supply	90 ~ 260VAC (50/60Hz)
Solar Power System	12/24 VDC
Communication	RS232 / RS485 / Ethernet Via RJ45 / GPRS / 3G / 4G / Optic Fiber
Protocol	NTCIP 1203 / MODBUS / UTMC / XML / Jetfilell / Profibus / RSMP / HTTP / API
EMC / FCC Certification	Compliant with EN50293, FCC Part 15B:2017, ICES-003:2016
Certification	EN12966, ETL, CETL