

## **Application:**

Variable Message Sign (VMS) to display travel information along the highway to improve traffic flow and road safety. Can be used for any language.

#### Features:

- · High brightness display for daylight visibility and long distance viewing.
- Full matrix display allows users to configure messages of any size and font to suit requirement.
- Flexibility to opt for Tri-Color pictogram for traffic & ITS symbol Display.
- Wig Wag on four corners in order to attract attention during critical information display.
- · Automatic dimming capability for adjustment based on ambient brightness.
- Galvanized mild steel casing with black powder coating for extensive weather durability.
- Utilizes single phase voltage.

### **Product Description:**

Variable Message Sign to be used as Information Display System in ITS application.

Software provided to enable display message in any language irrespective of its scripting complications.

Messages can be displayed in Red, Green or Amber color. Hense, multiple choices of message forming capability is available for users.

4 Amber color wig wags at each corner with a diameter of 200mm can be set to flash alternately or stay on in order to attract road users' attention when an important message is displayed.

Multi color graphics in Red, Green and Amber color can be formed in order to depict the intended traffic symbol.

Front face is fitted with UV treated polycarbonate to resist degradation to UV radiation.

Advanced production technology developed by ItraMAS ensures uniform brightness and color consistency across the entire VMS.

Surge protection provided at the input stage ensures electrical safety for remotely located VMS.

Rear access for the VMS maintenance ensures uninterrupted operation even during maintenance.

Modular construction ensures interchangeable parts and helps to reduce maintenance inventory.

## **Technical Specifications**

## Tri Colour Full Matrix VMS

- Red, Green, Amber

## **General Specification**

D	D 1/A 1 / C
Display Color	Red / Amber / Green
Resolution	40 x 224 pixels
Character Height	252 mm (MIN) and
	360 mm (MAX)
Character count per line	37 (at 252mm) and 28 (at 360mm)
Character line count	Not less than 4 (2 Red and 2 Green)
No. of LED per pixel	~ 24 mm diameter
Pixel size	36 mm
Pixel Pitch	7x5 (252mm), and 10x7 (360)
No. of pixel per character	250 meters
Viewing distance	30 degrees
Viewing angle	6 seconds at 110 km per hour
Viewing time	Text and graphics
Display capability	1440mm (H) x 8064mm (L)
Approx. Lighted up display area	Stay on or flashing
Display style	4 (diameter 200mm)

## Wig Wag Display

Display color	Amber
No. of Wig Wag per Panel	4
Viewing distance	200 meters
Viewing angle	30 degrees
Display capability	Full LED on
Display stype	Stay on or Flashing
Approx. Lighted up display area	~ 200 mm Diameter

## **LED Specifications**

LED type	AllnGAP / InGaN Technology
LED intensity	3.5 Candelas nominal
LED wavelength	520 to 535 nm (Green)
	615 nm to 631 nm (Red)
LED view angle	30 degrees
LED lifetime	10 years
LED diameter	5 mm
LED intensity control	Auto dimming with manual over ride

## **Mechanical Specifications**

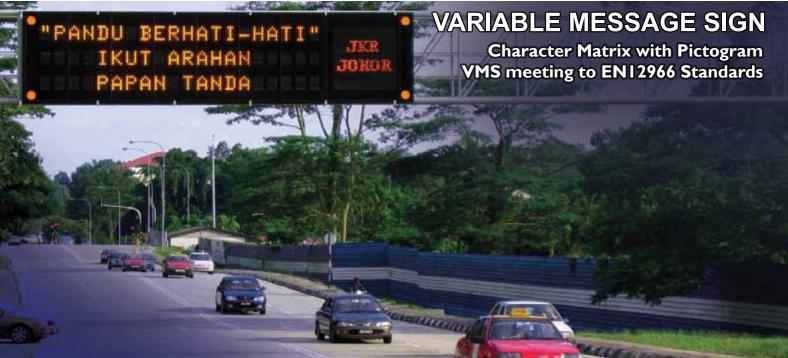
Full mechanical dimension	Approximately 2040mm x 8864 x
	250 mm
Weight	Not exceeding 3000 kg
Chassis design	Back Face IP 55. Front Face IP 65
Maintenance passage	Maintenance gallery walk path on rear
	side for accessing installation and
	Maintenance job
Casing / Chassis housing material	Mild steel casing
Front face colour	Black powder coated
Back face colour	Black powder coated
Cooling system	Force air or natural air system
Front face colour Back face colour	Mild steel casing Black powder coated

### **Power Supply**

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Input voltage	220 VAC - 240 VAC (single phase)
Maximum Power consumption	2.1K watt

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## **Application:**

Variable Message Sign (VMS) is used to display travel information along the highway to improve traffic flow and road safety.

#### Features:

- · High brightness display for daylight visibility and long distance viewing.
- Character height of 320mm for legibility distance up to 200 meter.
- · Dual color pictogram for traffic & ITS symbol display.
- Wig Wag on four corners in order to attract attention during critical information display.
- · Automatic dimming capability for adjustment based on ambient brightness.
- · Galvanized mild steel casing with black powder coating for extensive weather durability.
- Utilizes single phase voltage.

## **Product Description:**

Variable Message Sign to be used as Information Display System in ITS application.

Amber color character display formed by 7 LED pixel for high visibility with brightness of  $10,000 \text{ cd} / \text{m}^2$ .

3 lines of 20 characters provide sufficient space to display any traffic related messages.

4 Amber color wig wags at each corner with a diameter of 200mm can be set to flash alternately or stay on in order to attract road users' attention when an important message is displayed.

Dual color Red and Amber pictogram located at the right hand side of the VMS is formed by  $40 \times 40$  pixels. With 2 colors, any traffic and ITS symbols can be easily formed.

Pictogram display can be set to stay on or flashing based on user's preference.

Extensive pictograms symbol library of commonly used symbols is also provided with the system.

Pictograms are stored in the local controller at the VMS to reduce transmission delay during messaging.

Front face is fitted with UV treated polycarbonate to resist degradation to UV radiation.

Advanced production technology developed by ItraMAS ensures uniform brightness and color consistency across the entire VMS.

Surge protection provided at the input stage ensures electrical safety for remotely located VMS.

Rear access for the VMS maintenance ensures uninterrupted operation even during maintenance.

Modular construction ensures interchangeable parts and helps to reduce maintenance inventory.

# **Technical Specifications**

## Character Matrix VMS with Pictogram

- 320 mm Character Height

## **Character Panel Display**

Display color	Amber
Character count per line	20
Character line count	3
Minimum character height/width	~ 320 H x 229 W mm
No. of LED per pixel	7 Amber LED
Pixel size	~ 29.7 H x 29.7 W mm
Pixel Pitch	~ 45.7 H x 45.7 W mm
No. of pixel per character	7 H × 5 W
Viewing distance	200 meters
Viewing angle	30 degrees
Viewing time	6 seconds at 110 km per hour
Brightness	minimum 10,000 cd/m²
Display capability	Alpha-numeric
Approx. Lighted up display area	~ I441 H x 6150 mm
Display style	Stay on or flashing

## **Pictogram Panel Display**

Display color	Amber and Red
Pictogram Resolution	40 x 40 Pixels
No. of LED per pixel	2 Red LED, 2 Amber LED
Pixel Size	~ 24 H x 24 W mm
Pixel Pitch	~ 36 H x 36 W mm
Viewing distance	200 meters
Viewing angle	30 degrees
Viewing time	6 seconds at 110 km per hour
Brightness	minimum 10,000cd/m²
Display capability	Alpha-numeric and graphics
Approx. Lighted up display area	~ I248 H x I428 W mm
Display style	Stay on or Flashing

## Wig Wag Display

Display color	Amber
No. of Wig Wag per Panel	4
No. of LED per Wig Wag	108 Amber LED
Viewing distance	200 meters
Viewing angle	30 degrees
Display capability	Full LED on
Display stype	Stay on or Flashing
Approx. Lighted up display area	~ 200 mm Diameter

## **Amber LED Specifications**

LED type	AllnGAP Technology
LED intensity	3.5 Candelas nominal
LED wavelength	586 to 595 m (Amber)
	615 nm to 631 nm (Red)
LED view angle	30 degrees
LED lifetime	10 years
LED diameter	5 mm
LED intensity control	Auto dimming with manual over ride

## **Mechanical Specifications**

Full mechanical dimension	~ 2012 H x 8778 L x 200 W mm
Weight	Not exceeding 3000 kg
Chassis design	Back Face IP 55. Front Face IP 65.
Maintenance passage	Maintenance gallery walk path on rear
	side for accessing installation and
	Maintenance job
Casing / Chassis housing material	Mild steel casing
Front face colour	Black powder coated
Back face colour	Black powder coated
Cooling system	Exhaust Fan air system

## **Power Supply**

Input voltage	220 VAC - 240 VAC (single phase)
Maximum Power consumption	1000 watt

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