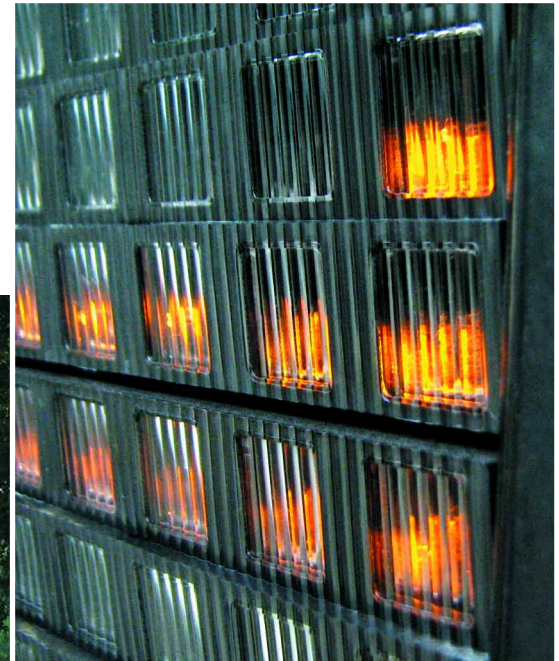


**MAKING THE
MESSAGE
CLEAR**

MS4 SERIES

VARIABLE MESSAGE SIGN

The **MS4** is designed to meet the challenging needs of traffic authorities and improve the quality of information available to motorists. The **MS4** Series offers a modular full graphics area with a matrix of LEDs in two colours. This makes it capable of displaying an almost infinite range of pictograms and legends.



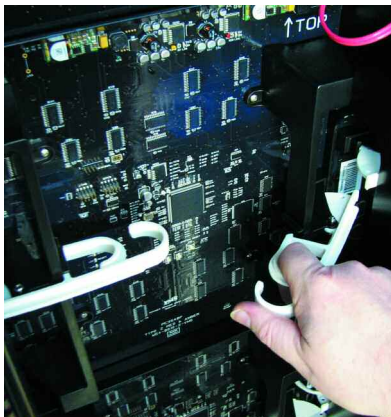
MS4 signs can be mounted on a variety of structures, including a cantilever, and can be controlled by GSM, Radio, TCP-IP, Internet and an RS485 bus.

TECHNICAL DETAILS

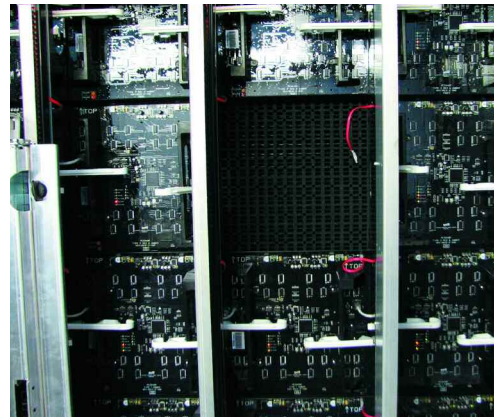
Model	Full Matrix Area (pixels) (mm)	Pixel Spacing	LEDs per pixel	Overall dimension (W x H) (mm)	Weight (kg)	Power consumption (max) (Watts)	Notes
MS4 – AMS	192 W x 128 H	20	1	4440 x 3160	725	2700	Dual (red + amber) pixels over full matrix area
MS4 - MS	192 W x 64 H	20	1	4440 x 1752	390	2000	Single colour (amber) - Intended for text only
MS4 – WW	64 W x 96 H	20	1	1810 x 2500	260	1500	Top 64 x 64 red + amber Bottom 32 x 64 amber

MS4 Technology can be used in any multiples of 16 x 16 pixel modules. Enquire if your display needs are not listed here.





- Flexible two colour display - red, amber, green or white
- Full matrix display - available in a number of different sizes
- RIGEL LED Technology
- Cost effective, lighter in weight
- Fully programmable - can display an almost infinite number of traffic symbols and/ or text displays
- Performance to European specification EN 12966



FEATURES AND BENEFITS

- Flexible two colour display - red and amber usual, green or white also available
- Aluminium enclosure, fully welded with internal strength and support members
- Full matrix display - available in a number of different sizes
- Fully programmable - can display full range of traffic pictograms and/ or text displays
- All signs use RIGEL high intensity LED technology with exceptionally long life, typically AlnGaP LEDs have lifetimes in the region of 100,000 hours
- Cost effective, lighter in weight
- Environmental protection to IPX6
- Operating temperature range -20°C to +60°C
- No reflective windows, no phantom effect! - individual LED lenses perforate front panel

- Can be mounted on a variety of structures, including lightweight cantilevers
- Optical performance conforming to European Standard EN 12966
- Visibility of 400mm characters > 300m
- Contrast ratio better than 10:1
- Brightness controlled by ambient light over 16 levels
- Display angle $\pm 10^\circ$ horizontal, 5° down
- Communications: RS485 Bus, with GSM, Radio, TCP-IP, modem, or Internet options possible
- Supplied with 'MS4 Testset', a Windows™ based software package that allows a user to view, edit, store and recall pixel patterns. Testset provides a sign mimic display to allow previewing of the display and runs the communications protocol.



GENERAL TECHNICAL SPECIFICATIONS

Text	Fully programmable	Enclosure	Fully welded aluminium
Graphics	Standard legends and symbols	Windows	No window required
LED display angle	$\pm 10^\circ$ horizontal, 5° down	Dimensions	See table
Colour	Red 620nm Amber 590nm	Weight	See table
Luminous intensity	Red > 3100 cd/m ² Amber > 7440 cd/m ²	Communication	RS485 standard, others available
Brightness levels	16	Communications protocol	UK Highways Agency NMCS2, others available
Environment class	IPX6	Temperature range	-20°C to +60°C
Lanterns	200mm red/amber (simulated within bicolour matrix area)	Operating Voltage	230V +15%-20%, 50/60 Hz
Conformity	EN 12966 and TR2516B	Maximum power	See table - with test display



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VMS
VARIABLE MESSAGE SIGNS

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