

LED Information Displays

GMB

GMB series information displays are digital LED information displays specially designed for platforms on railway stations. The full matrix LED displays provide a flexible solution for passenger information systems providing up-to-date information to passengers. Designed without front glass for maximum color reproduction. Various mounting options.



Features

LED Technology

LED Full-Matrix technology allows freely configurable display layout. Full graphical display with fine pixel pitch 2.5 mm perfectly displays text, graphic symbols, images, videos, websites and live broadcasts.

- High brightness display and great contrast guarantees excellent readability even in direct sunlight.
- Fully graphic display shows public transport information, train and bus departures, general passenger information as well as advertising messages and other multimedia.

Information System

Possibility of making the display as an autonomous display element or as part of larger information system.

- Management by an external master computer makes tracking and controlling easier.
- Power and runtime data are automatically monitored.

Mechanical Design

- Stable frame made of aluminium profiles and laser-cut sheets, powder coated finish or stainless steel imitation.
- Without front glass for excellent contrast and color reproduction, complete reduction of reflections, better cooling and lower weight.
- Flexible dimensions – compact sizes for highest categories of stations.
- Ceiling, wall bracket or pole mounting
- Double sided design.
- Possibility to display analogue clock or platform number.
- Maintenance-free design – smooth surface of LED modules ("g" variant), passive cooling without vents and filters.
- Easy access to all internal modules by sliding out the electronics carrier.

Operation

- The display is designed for reliable usage 24/7 in indoor and outdoor conditions.
- Choose from two types of modes according to displays usage.

Text-to-Speech Module

Specially developed module for visually handicapped persons.

- The module provides the necessary information via synthetic voice output from 8W speakers.

Various Areas of Use



Train Stations

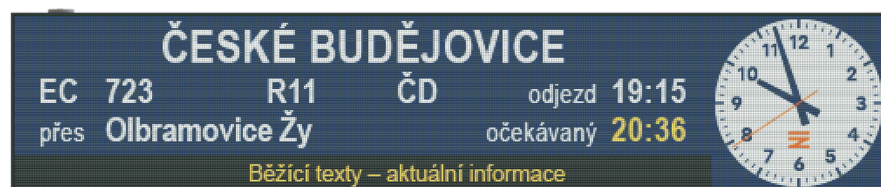


Railway Stations

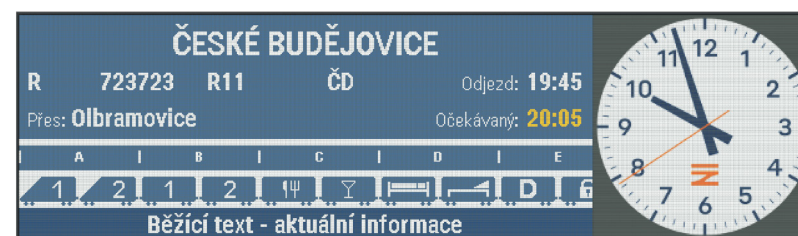


Metro

GMB.19g / GMB.25



GMB.20g



LED Technology



Full Color RGB Display



Usage 24/7



Brightness up to 4 500 cd/m²



Contrast up to 10 000:1



Management and Monitoring System



Passive Cooling



Option WiFi, LTE or Fiber Optics



Text-To-Speech Module



Suitable for Outdoor Use IP 55

Technical Parameters

GMB.		19g	20g	25
Module Specifications	pixel pitch [mm]	1,95	2,0	2.5
	resolution [px]	128 × 128	80 × 180	100 × 100
	size [mm]	250 × 250	160 × 360	250 × 250
	brightness	4 000 cd/m ²		4 500 cd/m ²
	viewing angle	±70° × ±60°		
	frame frequency	50 Hz		
	refresh rate	3 400 Hz	7 700 Hz	1 920 Hz
	color depth	22 bit	24 bit	
	contrast	3 000:1	10 000:1	3 000:1
	life span	≥ 100 000 hours (70% brightness)		
Mechanical Construction	frame	aluminium profiles and laser-cut sheets		
	service access	sliding part secured with industrial locks		
	cooling	passive cooling		
	dimensions [mm]	by screen size, see Indicative Active Area Dimensions Table		
	protection degree	IP 55		
	max. size of active display area [m] W × H	2.25 × 0.25	1.92 × 0.36	2.25 × 0.25
	noise level	max. 32 dB		
Temperature Management	temperature	-20 to +40 °C		
	humidity	10 to 90 % (without condensing)		
	max. intensity of solar radiation	1 120 W/m ²		
Power	power voltage	100–240 VAC, 50–60 Hz		
	max. power consumption	45 W/ module MAX, 15 W/ module AVG		
Mounting		ceiling suspension, wall bracket mounting, pole mounting		

Basic Font Set

GMB.19g										
Name	Standard 5/7	Bold 6/7	Narrow 4/7	Standard 6/10	Narrow 6/12	Arial 9/11	Arial 11/13	Arial 15/17	Arial 17/19	Arial 25/27
Max. character size (including gaps) [px] A × B	6 x 10	7 x 10	5 x 10	7 x 14	7 x 10	8 x 14	12 x 18	16 x 27	18 x 30	26 x 42
Height of capital letter [mm] C	14.6	14.6	14.6	20.4	24.3	22.4	26.3	34.1	38.0	53.6
Readability DIN1450 [m]	6	6	6	9	10	9	11	14	16	22
Readability TSI-PRM [m]	4	4	4	6	7	6	7	9	10	14
Number of character per line (1 module)	21.3	18.2	25.6	18.2	18.2	16.0	10.6	8.0	7.1	4.9
Max. number of rows per module	12.8	12.8	12.8	9.1	12.8	9.1	7.1	4.7	4.2	3.0

Possibility to add font on customer's request.

GMB.20g										
Name	Standard 5/7	Bold 6/7	Narrow 4/7	Standard 6/10	Narrow 6/12	Arial 9/11	Arial 11/13	Arial 15/17	Arial 17/19	Arial 25/27
Max. character size (including gaps) [px] A × B	6 x 10	7 x 10	5 x 10	7 x 14	7 x 10	8 x 14	12 x 18	16 x 27	18 x 30	26 x 42
Height of capital letter [mm] C	15.0	15.0	15.0	21.0	25.0	23.0	27.0	35.0	39.0	55.0
Readability DIN1450 [m]	6	6	6	9	10	10	11	14	16	22
Readability TSI-PRM [m]	4	4	4	6	7	6	7	9	10	14
Number of character per line (1 module)	13.3	11.4	16.0	11.4	11.4	10.0	6.6	5.0	4.4	3.0
Max. number of rows per module	18.0	18.0	18.0	12.8	18.0	12.8	10.0	6.6	6.0	4.2

Possibility to add font on customer's request.



Basic Font Set

GMB.25										
Name	Standard 5/7	Bold 6/7	Narrow 4/7	Standard 6/10	Narrow 6/12	Arial 9/11	Arial 11/13	Arial 15/17	Arial 17/19	Arial 25/27
Max. character size (including gaps) [px] A × B	6 x 10	7 x 10	5 x 10	7 x 14	7 x 10	8 x 14	12 x 18	16 x 27	18 x 30	26 x 42
Height of capital letter [mm] C	18.7	18.7	18.7	26.2	31.2	28.7	33.7	43.7	48.7	68.7
Readability DIN1450 [m]	8	8	8	11	13	12	14	18	20	28
Readability TSI-PRM [m]	5	5	5	7	8	8	9	11	13	18
Number of character per line (1 module)	16.6	14.2	20.0	14.2	14.2	12.5	8.3	6.2	5.5	3.8
Max. number of rows per module	10.0	10.0	10.0	7.1	10.0	7.1	5.5	3.7	3.3	2.3

Possibility to add font on customer's request.



Indicative Active Area Dimensions Table

Dimensions are in mm.

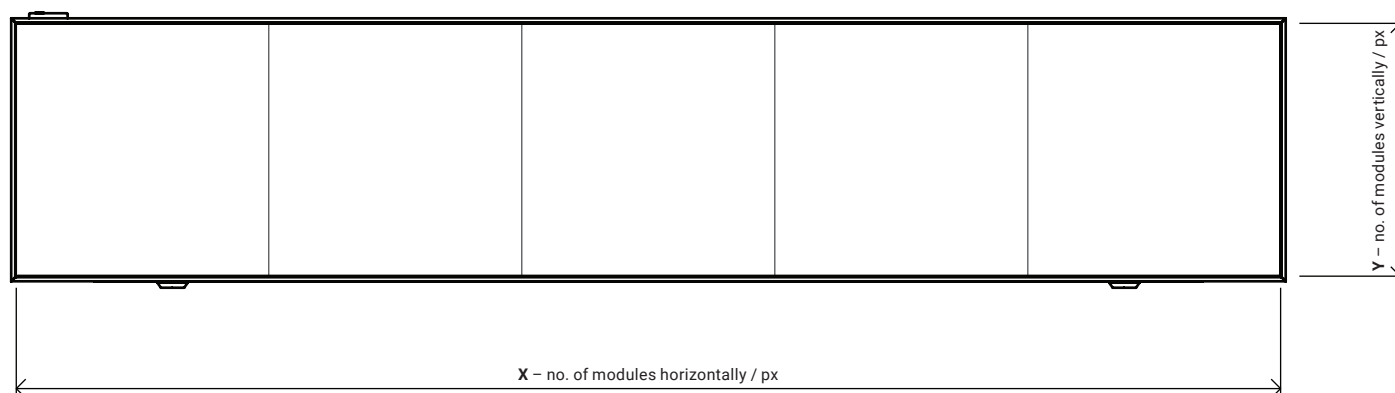
GMB.19g		X					
		4	5	6	7	8	9
		512	640	768	896	1 024	1 152
Y	1	1 000 250	1 250 250	1 500 250	1 750 250	2 000 250	2 250 250
		128					

Dimensions are in mm.

GMB.20g		X		
		4	8	12
		320	640	960
Y	1	640 360	1 280 360	1 920 360
		180		

Dimensions are in mm.

GMB.25		X					
		4	5	6	7	8	9
		400	500	600	700	800	900
Y	1	1 000 250	1 250 250	1 500 250	1 750 250	2 000 250	2 250 250
		100					



Order Reference

1	Model	
	GMB.19g	19g
	GMB.20g	20g
	GMB.25	25

2	Number of Pixels Horizontally	
	GMB.19g (128 px per module)	512–1152
	GMB.20g (80 px per module)	320–960
	GMB.25 (100 px per module)	400–900

3	Number of Pixels Vertically	
	GMB.19g (128 px per module)	128
	GMB.20g (180 px per module)	180
	GMB.25 (100 px per module)	100

4	Display Color	
	Full color RGB display	RGB

5	Design	
	Single sided	N
	Double sided	D

6	Mounting	
	Ceiling suspension	S
	Pole mounting – “T” type	T
	Wall mounting	N
	Wall bracket mounting	B

7	Options ¹	
	(if more than one option is selected, include the extension code in order indicated by dot)	
	Platform number	Nb
	Text-To-Speech module with 8W speaker and receiver for visually handicapped	TTS
	Preparation of the camera at the top edge	CT
	Preparation for x (max. 3) cameras on the bottom side	Cx
	Interface Ethernet	LAN
	Interface RS 485	RS485
	Interface WiFi	WiFi
	Interface LTE	LTE
	Interface LTE with short-term power backup	LTEB
	Interface fiber optics	FO
	Preparation for interface fiber optics	FOP
	Tamper switch	ST
	Remote device restart trigger option	RR
	Power outage notification	PFN
	Auxiliary security lock	ASL

¹ Some options cannot be combined with each other due to technical reasons. Please contact manufacturer to verify the configuration.

8	Frame Color	
	Matte black	RAL9005
	Light grey	RAL7040
	Anthracite	RAL7016
	Frame color on request	RALxxxx

Accessory

Protection against birds GMB.BP



Order example:

GMB.20g.640.180.RGB.D.B.TTS.LAN.RAL7016

GMB	1	2	3	4	5	6	7	8
Model	Number of Pixels Horizontally	Number of Pixels Vertically	Display Color	Design	Mounting	Options	Frame Color	

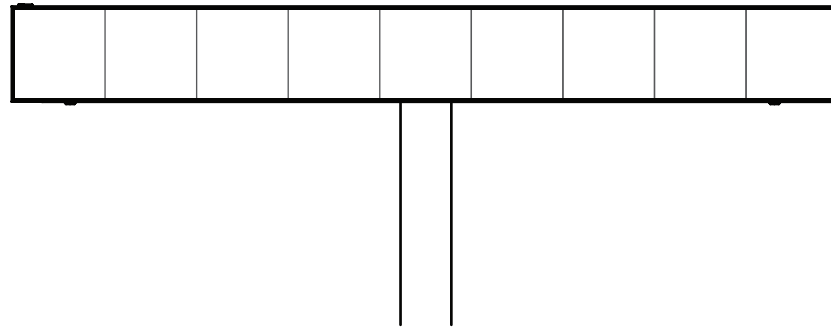
Mounting

Ceiling Suspension



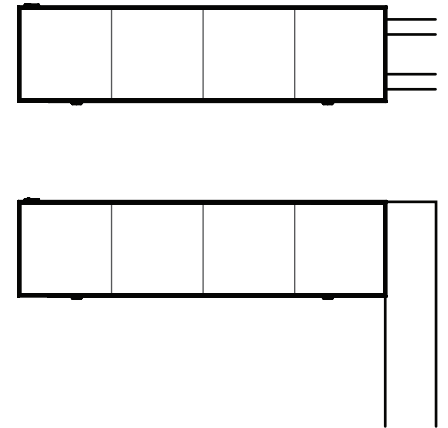
Order reference: **S**

Pole Mounting – “T” Type



Order reference: **T**

Wall Bracket Mounting



Order reference: **B**

Get in Touch

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LE-801407.10-GMB Outdoor LED Full Matrix Information Display-260921

Your Partner Across Time...

We are a traditional Czech company operating in the field of timekeeping and display technology. Our success is evidenced by our continuous growth, both in terms of company size and expansion of our product range or export abroad.

Since 1995 we have been a member of the international holding MOSER-BAER AG and our products under the prestigious MOBATIME brand are exported all over the world.

