







YOUR COMPLETE SOLUTION FOR DESTINATION DISPLAYS



INTRODUCING HANOVER'S LED DESTINATION DISPLAYS

Hanover's range of LED destination displays are available in various sizes and colours to suit local regulations and all types of buses. We offer full monochrome displays in amber or white LED, colour route number and full-colour, plus curved case designs and high-resolution displays. A comprehensive selection to meet the diverse global requirements.

Our LED destination displays are robust, easy to install, low-maintenance, and come with industry-leading warranty terms.

KEY BENEFITS

- Latest-generation surface-mount LED and electronic components
- Reduced power consumption aids fuel consumption, emissions and operating costs
- Patented power-saving LORA software
- Designed and certified to R10 & R118 E Mark standards
- Easy to install and low maintenance
- Field-proven design and construction
- Reliability backed up by extended warranty
- Global technical support
- Quick and flexible delivery

STANDARD RESOLUTION LED DESTINATION DISPLAYS



Our LED destination displays are efficient, reliable and robust. Each product undergoes rigorous quality assurance checks throughout our in-house manufacturing process, ensuring we supply our customers with the highest quality products.

Confident in the reliability of our products, we provide industry-leading warranty terms as standard across all our LED destination signs. These displays are available in monochrome and RGB variants, with curved and super slim case options.

With a focus on reducing fuel consumption and CO₂ emissions, our LED displays integrate the latest energy-efficient SMD technology with our patented power-saving LORA software.

KEY BENEFITS

- Automatic brightness adjustment, optimising visibility and reducing power consumption
- Multiple cable exit options on all LED displays
- **Excellent legibility in all weather conditions**
- Backwards compatible with previous products and programming software
- Improved design with slimmer casework
- Lightweight casing based on folded single-piece construction
- Wide viewing angle for optimum readability
- Various interfaces available inc. Ethernet & Serial (RS485, RS232, M12, RJ45, J1708 & IBIS)

HIGH-RESOLUTION LED DESTINATION DISPLAYS



In 2020, we introduced an exciting new range of high-resolution LED displays. Utilising the latest LED technology, we developed the capacity to reduce pixel spacing down to 2mm.

Our high-resolution LED destination displays offer up to 20 times the resolution of a standard LED destination sign. The increased resolution gives operators the flexibility to display a wealth of information with exceptional clarity, including animations, graphics and images.

Today, the whole range of sign sizes is enriched with full colour (FC) and full colour route number (FCRN) variants capcable of displaying content in dynamic and real-time modes.

KEY BENEFITS:

- Reduced pixel from 2mm
- Approximately 20x more LEDs than standard destination displays
- **Greyscaling further enhances** character definition
- Crystal clear legibility in all weather conditions
- New application in Hanover Cloud for easy creation and loading of destination databases
- E-marked, R118 certified, ITxPT labelled

Installation and commissioning is simple, thanks to compatibility with existing cabling and connectors. The new technology offers an improved passenger experience with the same reliability and extended warranty as our standard LED displays

Available in amber, white, FC RN + Amber. FC RN + White and Full Colour

Ethernet interface allows remote software and asset updates from Hanover Cloud, as well as open standards (ITxPT, **IBIS IP)** Implementation





GREENER SOLUTIONS FOR A BETTER TOMORROW

We put environmental sustainability at the heart of everything we do, from the way we design our products to how we produce and deliver them. Helping our customers improve their own environmental performance is also of paramount importance. We strive to provide our customers with solutions that help them reduce energy consumption, emissions and waste.

KEY BENEFITS:



Lightweight case designs and efficient power management help reduce fuel consumption, **CO**₂ emissions and operating costs for our customers



Manufactured to IS014001 standard



Lean manufacturing processes help reduce our environmental impact



Hanover is committed to recycling over 75% of our waste each year



↓ LORA SOFTWARE

Hanover LED displays incorporate our own patented software, LORA (Light Output Regulation Algorithm). The LORA software calculates the number of LEDs lit in any displayed message and adjusts brightness accordingly to maximise efficiency.

When a specific percentage of the available LEDs is reached or exceeded by lit LEDs, the software automatically reduces the current through the LEDs, saving energy and reducing glare, ensuring all our displays are power efficient and perfectly legible in all conditions.

KEY BENEFITS:



Reduces power consumption without affecting legibility



Reduces unwanted glare



Reduces the weight of the sign by avoiding the need for bulky power supply assemblies





DESTINATION CONTROLLERS

Offering an independent means of controlling our world-class destination displays, Hanover destination display controllers can act either as a primary driver interface in manual stand-alone applications, or as an important secondary interface in integrated systems.







DG3 CONTROLLER

- Simple 4-button keypad
- High resolution, full graphical OLED display
- 8MB memory and easy USB loading
- Ethernet
- M12 Ethernet connection
- Serial interface options available

EG3 CONTROLLER

- Incorporates full alphanumeric keypad
- Illuminated buttons for selectable options
- Standard DIN radio mount installation
- Ethernet
- M12 Ethernet connection
- Serial interface options available

EG4 CONTROLLER

- Touchscreen controller with graphical user interface
- Built in 10W audio output
- Ethernet
- 2x M12 or RJ45 **Ethernet connection**
- Serial interface options available



HANOVER CLOUD ONLINE PORTAL

Hanover Cloud, our web-based user interface, simplifies the configuration and management of Hanover equipment. It supports fleet management, status updates, transfers, and destination lists for all Hanover displays. It streamlines the process of delivering passenger information and provides a fast, secure, and cost-effective system for public transport operators.





PRODUCT INFORMATION STANDARD RESOLUTION LED DESTINATION DISPLAYS

PRODUCT	DISPLAY SIZE HXV		VIEWING AREA (MM)		CASE DIMENSION (MM)			●W ●A ♣FC♣RN ONLY
CODE	HORIZONTAL	VERTICAL	LENGTH	HEIGHT	LENGTH	HEIGHT	DEPTH	LED COLOUR
G4.001	192	19	1953	249	1974	352	33	O O RN ONLY
G4.002	160	17	1626	222	1646	325	33	RN ONLY
G4.003	192	17	1953	222	1974	325	33	RN ONLY
G4.004	128	15	1236	152	1286	210	33	• • •
G4.005	160	19	1626	249	1646	352	33	• C FULL COLOUR
G4.006	144	19	1463	249	1520	335	33	• • •
G4.008	128	17	1300	222	1350	269	33	• C FULL COLOUR
G4.009	128	32	1300	313	1480	421	33	•
G4.010	96	8	926	81	946	185	33	• •
G4.012	96	15	926	152	976	210	33	• • ©
G4.016	160	24	1626	292	1680	350	33	RN ONLY
G4.018	160	24	1117	210	1183	270	33	• • ©
G4.020	32	17	321	222	340	325	33	• • •
G4.021	32	15	305	152	355	210	33	• • •
G4.022	32	17	321	222	400	269	33	• • ©
G4.023	36	17	363	217	441	299	33	•
G4.024	48	8	460	81	515	152	33	•
G4.030	64	15	616	152	665	210	33	•





PRODUCT INFORMATION STANDARD RESOLUTION LED DESTINATION DISPLAYS (CONTINUED)

PRODUCT	DISPLAY SIZE HXV		VIEWING AREA (MM)		CASE DIMENSION (MM)			●W ●A ♣FC ♣ RN ONLY
CODE	HORIZONTAL	VERTICAL	LENGTH	HEIGHT	LENGTH	HEIGHT	DEPTH	LED COLOUR
G4.033	128	17	1122	169	1180	260	33	• •
G4.034	32	17	277	169	350	260	33	• •
G4.036	96	17	840	169	898	260	33	• •
G4.037	160	19	1117	166	1183	246	33	O O C RN ONLY
G4.042	40	24	277	210	340	270	33	• • ©
G4.044	96	8	926	81	980	152	33	O O RN ONLY
G4.075	96	17	973	222	1020	269	33	• •
G4.102	200	24	1934	239	1960	325	33	• • •
G4.116	40	24	406	292	456	350	33	RN ONLY
G4.118	120	24	840	206	900	260	33	RN ONLY
G4.126	112	16	1115	160	1150	236	33	• •
G4.129	28	16	275	160	310	236	33	• •
G4.143	128	16	1920	235	2030	325	33	• •
G4.146	112	12	1114	120	1150	165	33	O O O RN ONLY
G4.148	84	12	834	120	870	165	33	O O RN ONLY
G4.150	32	19	326	256	370	308	33	RN ONLY
G4.151	160	19	1627	253	1646	352	33	RN ONLY
G4.152	160	19	1117	160	1183	246	33	RN ONLY
G4.155	160	19	1626	249	1646	330	33	RN ONLY



PRODUCT INFORMATION HIGH-RESOLUTION COLOUR LED DESTINATION DISPLAYS

PRODUCT	DISPLAY SIZE HXV		VIEWING AREA (MM)		CASE DIMENSION (MM)			●W ●A ♣FC♣RN ONLY
CODE	HORIZONTAL	VERTICAL	LENGTH	HEIGHT	LENGTH	HEIGHT	DEPTH	LED COLOUR
G5.503	480	88	1476	273	1521	335	50	• • •
G5.504	120	88	372	273	416	335	50	• • •
G5.505	448	64	920	134				• • •
G5.509	120	88	287	215	401	269	50	• • •
G5.510	600	88	1904	273	1949	335	50	• • •
G5.511	480	88	1124	215	1184	260	50	• • •
G5.512	416	58	580	62	600	110	55	•
G5.515 RAIL	448	64	920	134	960	191	68	•
G5.521	360	88	845	215	900	260	50	• • •



PRODUCT	DISPLAY SIZE HXV		VIEWING AREA (MM)		CASE DIMENSION (MM)			●W ●A 爲FC爲RN ONLY
CODE	HORIZONTAL	VERTICAL	LENGTH	HEIGHT	LENGTH	HEIGHT	DEPTH	LED COLOUR
G4.200	128	16	498	93	512	118	33	• •
G4.212	160	19	720	124	800	150	25	• •
G4.258	160	32	941	189	980	220	25	•



PRODUCT	DISPLAY SIZE HXV		VIEWING AREA (MM)		CASE DIMENSION (MM)			●W ●A ♣FC ♣RN ONLY
CODE	HORIZONTAL	VERTICAL	LENGTH	HEIGHT	LENGTH	HEIGHT	DEPTH	LED COLOUR
G4.031	144	19	1490	200	1520	250	51.5	O RN ONLY
G4.040	128	15	1238	147	1286	210	51.5	
G4.041	96	15	928	147	976	210	51.5	

Information stated in this brochure is correct at time of printing and subject to change without prior notice. Please get in touch with us for a detailed quotation.



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