



Passenger Information Displays

smartcitydisplays.com

 **DYSTEN**



linia
route

Park Drezera 05

kierunek
destination

14 METRO WILANOWSKA
10 WYSCIEŁ
35 WYSCIEŁ
14 METRO WILANOWSKA
18 PKP SŁUŻEWIEC
WYSCIEŁ

05
05
05

WHY DYSTEN?

Polish manufacturer of displays in LED, LCD TFT, E-paper technology



20 YEARS OF EXPERIENCE

After 20 years we know the long-term consequences of any technology decision. We have all key factors under control – large R&D department, with smart engineers, our own extensive production hall, and we design the devices by ourselves.



CUSTOMISATION & OPTIMISATION

Detailed customisation to clients' needs and location requirements. Our engineers have developed solutions to increase reliability and reduce power consumption.



OPEN PROTOCOLS

Dysten devices use open protocols that are easy to integrate into any system.



SUPPORT

Technical support and service team available to meet clients' needs in every phase. Technicians can assist you during installation, set-up, repairs and maintenance.



ISO 9001

Each new product undergoes 5 stages: Feasibility Study, Concept and Custom Design, Project, Prototype, Production. We work in a repetitive manner, based on projects and procedures.

AWARDED INNOVATIONS



Best Smart City & Railway Information Displays Manufacturer Europe 2019



Smart City Poland Award 2019



Global Light Rail Awards Best Customer Initiative London 2018



Best Railway Passenger Information Displays Manufacturer in Europe 2018



Global Light Rail Awards Technical Innovation of the Year London 2018



Good Design Finalist of the Competition E-paper

TEATR
GULIWER



Morskie Oko 03

09:06

linia route	kierunek destination	odjazd (min) departure in
14	METRO WILANOWSKA	3
18	PKP SŁUŻEWIEC	4
4	WYŚCIGI	4
10	WYŚCIGI	5
35	WYŚCIGI	6
10	WYŚCIGI	6



14 METRO WILANOWSKA

3810

PLATFORM PASSENGER INFORMATION DISPLAYS

Technologies: full-colour LED RGB, monochromatic LED amber, LCD-TFT, E-paper

Dysten Ltd manufactures Platform Passenger Information Displays in all available modern technologies: LED, LCD-TFT, E-paper. The company's mission is to customise Passenger Information Displays in order to develop a perfect combination tailored to your needs, location requirements and budget. After 20 years our **knowledge** and **experience** have allowed us to learn about the long-term consequences of all choices. Dysten's passenger information displays use dynamic information with real time arrivals and departures. The devices can be additionally equipped with a surveillance camera. The boards may display warnings and read loudly information for the disabled from the screen (text-to-speech option). The system limits the device's luminance at night, using sensor data. The key advantage – apart from customisation, durability and quality – is an **easy integration** of devices with any system, reading direction and language thanks to thoughtful solutions and open protocols. Dysten's team can help you choose the best combination of features and technology. Let's start a technical dialogue now.

Platform displays



Bus stop



Tram stop



Metro



LED



LOW POWER CONSUMPTION
8 hours of operation without power



INVOICES FOR ELECTRICITY
four times lower than in the case of LCDs



THE BRIGHTEST POSSIBLE CONTENT
up to 5000 nits



FULL-COLOUR
or monochromatic amber display



15-YEAR LIFETIME
The longest possible lifecycle
100,000 MTBF hours



PROTECTION LEVEL
IP 54 to IP65, IK07 to IK09,
many possible sensors and options

LCD-TFT



HIGH RESOLUTION
detailed matrix screen



GOOD BRIGHTNESS
up to 3500 nits



COLOUR
The best solution for impressive, detailed,
dynamic content in vivid colours



5-YEAR LIFETIME
MTBF 50,000 hours



PROTECTION LEVEL
IP 54 to IP65, IK07 to IK09,
many possible sensors and options

E-PAPER



GOOD READABILITY
Viewing comfort – just like reading a book



FORGET ABOUT ELECTRICITY INVOICES
E-paper can use green energy



QUICK INSTALLATION
The quickest solution to expand your network



MONO
Black and white display in grey scale.
Good for a timetable



FLEXIBLE
Various sizes, colours and configurations,
additional buttons, special options



PROTECTION LEVEL
IP 54 to IP65, housing customisation

MAIN PASSENGER INFORMATION DISPLAYS

Technologies: full-colour LED RGB, monochromatic LED amber

Dysten manufactures Main Passenger Information Displays in outdoor and indoor versions. The larger, mostly one-sided boards are mounted on the wall or pole and display more information about departures and arrivals than typical platform displays. There are two types of main passenger information boards: full-colour LED RGB and monochromatic LED amber.

Main displays



Bus station



Metro station



Interchange node



FULL-COLOUR LED RGB



LOW POWER CONSUMPTION

8 hours of operation without power



INVOICES FOR ELECTRICITY

four times lower than in the case of LCDs



THE BRIGHTEST DISPLAY

up to 5000 nits



FULL-COLOUR

LED RGB



15-YEAR LIFETIME

The longest possible lifecycle 100,000 MTBF hours



PROTECTION LEVEL AND IMPACT RESISTANCE

IP 54 to IP65, IK07 to 09, many possible sensors and options

MONOCHROMATIC LED AMBER



LOW POWER CONSUMPTION

8 hours of operation without power



INVOICES FOR ELECTRICITY

four times lower than in the case of LCDs



THE BRIGHTEST DISPLAY

up to 5000 nits



MONOCHROMATIC

One-colour amber display



15-YEAR LIFETIME








The longest possible lifecycle 100,000 MTBF hours



PROTECTION LEVEL AND IMPACT RESISTANCE

IP 54 to IP65, IK07 to 09, many possible sensors and options

LED PASSENGER INFORMATION DISPLAYS

TYPE	PLATFORM LED DISPLAYS					MAIN LED DISPLAYS	
	Platform P3 RGB	Platform P4 RGB	Platform P6 RGB	Platform P4 amber	Platform P6 amber	Main P4 RGB	Main P6 amber
							
Technology	LED RGB full colour	LED RGB full colour	LED RGB full colour	Monochromatic LED SMD amber	Monochromatic LED SMD amber	LED RGB full colour	Monochromatic LED SMD amber
Resolution of single LED module (pix*)	64x64	32x32	16x32	16x32	16x32	32x32	16x32
Pixel pitch (mm)	3	4	6	4	6	4	6
Luminance [nits]	4000	4000	4000	4500	4500	4500	4000
Number of rows	Customised	Customised	Customised	Customised	Customised	Customised	Customised
IP protection	IP54 / IP65	IP54 / IP65	IP54 / IP65	IP54 / IP65	IP55 / IP65	IP54 / IP65	IP22 / IP54 / IP65
Temperature [°C]	-25°/+50°	-25°/+50°	-25°/+50°	-25°/+50°	-25°/+50°	-25°/+50°	-25°/+50°
MTBF [h]	100000	100000	100000	100000	100000	100000	100000
Vac supply	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Anti-vandalism	✓	✓	✓	✓	✓	✓	✓
Brightness sensor	✓	✓	✓	✓	✓	✓	✓
Glass break sensor	✓	✓	✓	✓	✓	✓	✓
Case opening sensor	✓	✓	✓	✓	✓	✓	✓
Shock sensor	✓	✓	✓	✓	✓	✓	✓
Anti-reflective glass	✓	✓	✓	✓	✓	✓	✓
Control system	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial,	DVI, HDMI, LAN, serial
Options	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS, Text-to-speech	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS, Text-to-speech	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS, Text-to-speech	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS, Text-to-speech	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS, Text-to-speech	Digital/analog clock, Camera, Emergency alert, Double-sided Emergency SOS Text-to-speech	Digital/analog clock, Camera, Emergency alert, Emergency SOS, Text-to-speech
Total size [mm]	1200 x 750	1352 x 976	1258 x 409 x 322	884 x 510 x 192	1080 x 557	2500 x 1500	1524 x 798 x 228

*Total resolution equals the multiplicity of single units resolution

PLATFORM LCD TFT PASSENGER INFORMATION DISPLAYS

PLATFORM LCD TFT DISPLAYS

TYPE	Platform LCD 32	Platform LCD 42	Platform LCD 46	Platform LCD 49	Platform LCD 55
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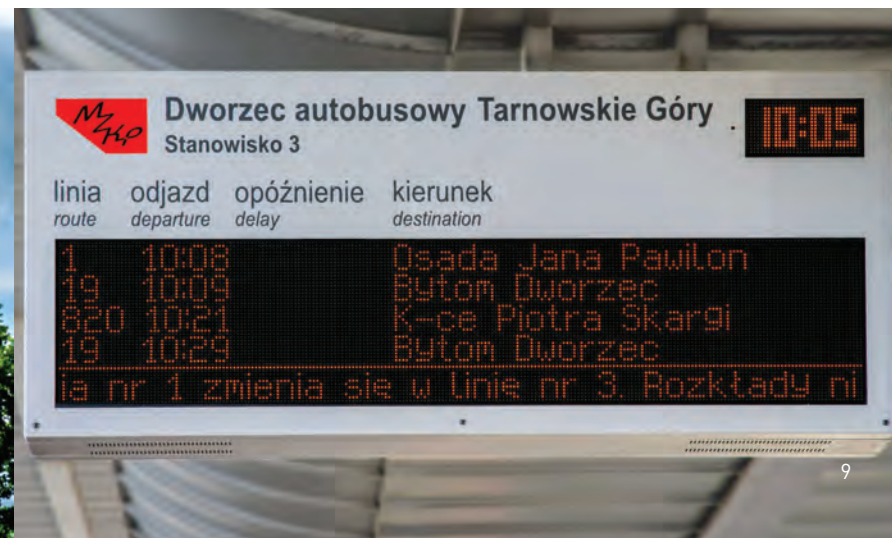
Technology	LCD TFT	LCD TFT	LCD TFT	LCD TFT	LCD TFT
Resolution	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080
Screen size (inch)	32"	42"	46"	49"	55"
Luminance [nits]	500-2500	500-2500	500-2500	500-2500	500-2500
IP protection	IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65
Temperature [°C]	-25°C / +50°C	-40°C / +45°C	-25°C / +50°C	-10°C / +45°C	-10°C / +45°C
MTBF [h]	50 000	50 000	50 000	50 000	50 000
Vac supply	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Anti-vandalism	✓	✓	✓	✓	✓
Brightness sensor	✓	✓	✓	✓	✓
Glass break sensor	✓	✓	✓	✓	✓
Case opening sensor	✓	✓	✓	✓	✓
Shock sensor	✓	✓	✓	✓	✓
Anti-reflective glass	✓	✓	✓	✓	✓
Control system	DVI, HDMI, LAN, serial	DVI, HDMI, LAN, serial	DVI, HDMI, LAN, serial	DVI, HDMI, LAN, serial	DVI, HDMI, LAN, serial
Options	Digital/analog clock, Camera, Redundant power supply	Digital/analog clock, Camera, Redundant power supply	Digital/analog clock, Camera, Redundant power supply	Digital/analog clock, Camera, Redundant power supply	Digital/analog clock, Camera, Redundant power supply
Total size [mm]	540x820x312 (±30)	1116x698x501 (±30)	750x1200 (±30)	1350x800x500 (±30)	1400x1000x200 (±30)

OPTIONS FOR PASSENGER INFORMATION DISPLAYS

TYPE	Emergency panel	Text-to-speech button	Hidden camera	Standard camera
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Functions	SOS & TTS	TTS only	Monitoring	Monitoring
Mounting options	Pole, shelter	Pole, shelter	Built-in	Pole
IP Protection	IP54	IP54	IP54	IP67
Total size (mm)	106x250	∅ 85	10x10	∅ 141



“The Dysten company designed, manufactured, delivered and installed a Dynamic Passenger Information System (...) along with a sound system (...). The equipment installed represents high-end quality and reliability, and the DYSTEN employees who implemented the system demonstrated exceptional professional skills.”

Henryk Szudy,
Board Chairman of the Inter-Communal Association
of Passenger Transportation

“Dysten’s reliable technology and services offer incredible value and provide continued success to Intelligent Transport System area.”

Iqube GMBH, Germany

“Boards provided by Dysten were made in accordance with the specification, and employees demonstrated professionalism and flexibility during implementation. The boards are of high quality and work reliably.”

Trapeze Switzerland GmbH





“Dysten is a reliable partner and the offered products are very high quality and technologically advanced.”

GMV Innovating Solutions

“WASKO has been cooperating with Dysten for several years in the field of devices for Intelligent Transport Systems based on LED technology. The devices are technologically advanced and are always characterized by high quality workmanship.”

WASKO SA

“Over the past 5 years, the company has proven itself to be a reliable and reliable partner, and the technical solutions offered meet high technical and quality standards. At that time, the company made and delivered specialized LED screens for the presentation of stock exchange listings for the Warsaw Stock Exchange.”

Warsaw Stock Exchange





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Dysten Sp. z o.o. reserves the right to made changes to its product without notice. All information is subject to change.



European Union
European Regional
Development Fund

