DYSTEN

Manufacturer of Passenger Information Displays railway-displays.com

Warszawa Zachodnia WKD NERURE 14:10 1 Podkowa Leśna Główna 14:25 1 Grodzisk Mazowiecki Radońska 14:40 1 Podkowa Leśna Główna 14:55 1 Milanówek Grudów 15:05 1 Podkowa Leśna Główna	14:01 00000 8 min 23 min 38 min 53 min 63 min	Warszawa Zachodnia WKD RZXLAU PERON KERUME 14:06 1 Warszawa Śródmieście WKD 14:21 1 Warszawa Śródmieście WKD 14:36 1 Warszawa Śródmieście WKD 14:51 1 Warszawa Śródmieście WKD 15:06 1 Warszawa Śródmieście WKD	14:01 Desare 7 min 23 min 23 min 34 min 49 min 64 min

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DYSTEN

Manufacturer of passenger information displays in LED, LCD TFT and E-paper technology



DYSTEN

A Polish manufacturer, a Polish capital, highly appreciated Polish technical solution all over the global markets. An extensive experience built since 1999 enables to meet the demands of individual customers and face the most challenging projects.



CUSTOMIZE

DYSTEN offers passenger information displays with custom shapes and sizes while using reliable components. DYSTEN follows the PID project from beginning to end, from the analysis of the product feasibility, concept and custom design, until the creation of a prototype and then the production.



ISO 9001

As a manufacturer of passenger information displays DYSTEN ensures the highest quality norms based on the advanced quality control system for which the company has been granted an ISO certification - ISO 9001.



SUPPORT

DYSTEN has a technical support and service team available to cover client needs in every phase, technicians can assist you during installation, set-up, repairs and maintenance efficiently and quickly.





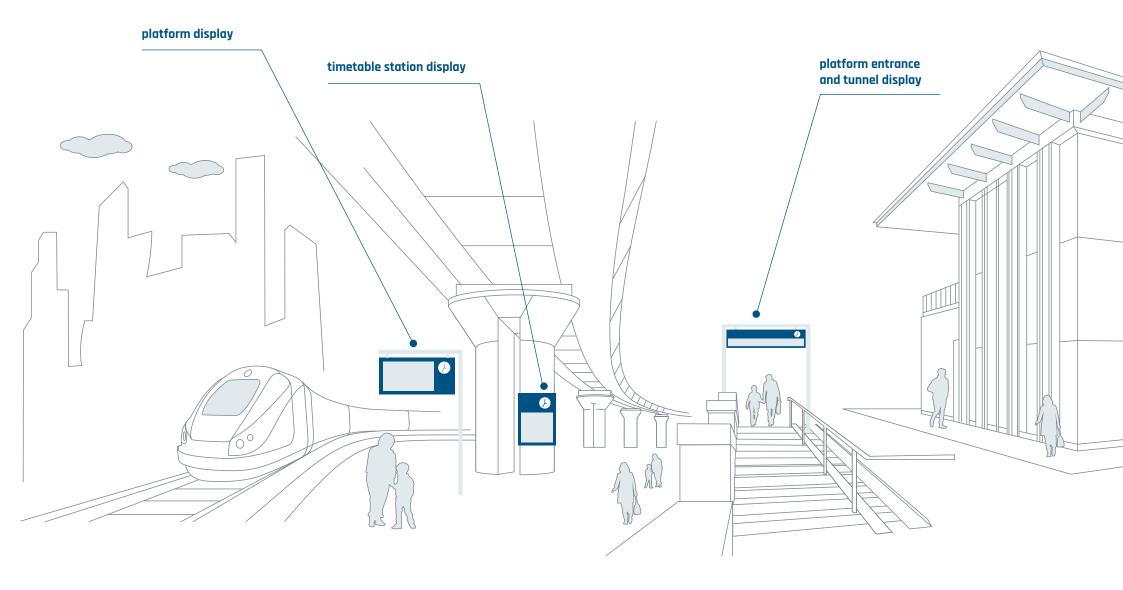




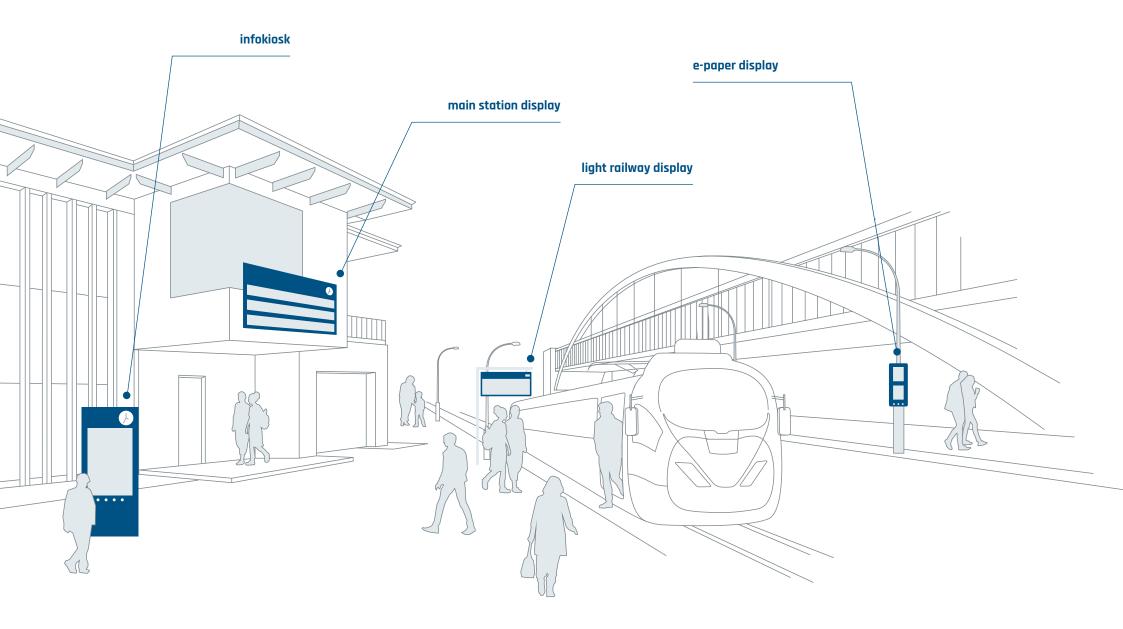




DYSTEN offers complete wide range of real time passenger information displays providing instant information from entering the station to boarding the train / metro.



DYSTEN offers outdoor and indoor passenger information displays in LED, LCD TFT and E-PAPER technology.





Passenger information displays



LED

LOW POWER CONSUMPTION

Four times lower energy consumption compared to LCD TFT technology.

HIGH BRIGHTNESS up to 5000 nits

High brightness for better reading of information from a long distance, as well as a built-in brightness sensor that adjusts the intensity of LEDs.

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FULL COLOR - LED RGB

LED RGB (full colour) devices provide complete freedom to display content – any color, size and type font and format of the timetable.

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15 YEARS LIFETIME

Service life 15 years, MTBF 100 000 hours.

PROTECTION



Protection adapted to the environment and customer needs; IP54 to IP65, IK07 to IK09. Anti-vandal sensor, glass break sensor, case opening sensor, shock sensor, bomb alert, no-visible camera etc.

Easy integration with any system – open communication protocols.

LED passenger information displays

	main station displays				platform	n displays
ТҮРЕ	WGS_LED_P4_R6	WGS_LED_P4_R9	WGS_LED_P3_R6	WGS_LED_P3_R9	WKR_LED	WKR_LED_Z (with clock)

Technology	LED RGB FULL COLOR, LED SMD	LED RGB FULL COLOR, LED SMD				
Resolution [pix]	608 x 128	608 x192	1824x384	1824x512	320 x 192	320x192
Pixel Pitch	4	4	3	3	3	3
Number of rows	6	9	6	9	any	any
Luminance (nits)	4000	4000	4000	4000	2500	500 - 2500
IP protection	IP42 / IP 55 / IP65	IP55 / IP65	IP55 / IP65			
Temperature [°C]	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°
MTBF [h]	100 000	100 000	100 000	100 000	100 000	100 000
Vac supply	230 V 50 Hz	230 V 50 Hz				
Anti-vandalism	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Brightness sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Glass break sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Case opening sensor	\checkmark	\checkmark	\checkmark	✓	\checkmark	\checkmark
Shock sensor	\checkmark	\checkmark	\checkmark	✓	\checkmark	\checkmark
Anti-reflective glass	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Control system	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT				
Options	Digital / analog Clock Camera Redundant power supply	Digital / analog Clock Camera Redundant power supply one side / double side TTS, SOS	Digital / analog Clock Camera Redundant power supply one side / double side TTS ,SOS			
Total size [mm]	2616 x 1170 x 162 (+/-30)	2616 x 1502 x 162 (+/-30)	2008 x 1050 x 162 (+/-30)	2008 x 1242 x 162 (+/-30)	1160 x 750 x 200 (+/-30)	1500 x 750 x 200 (+/-30)

		light railway displays					
ТҮРЕ	TRGB-4	TP4W1S-4	TP4W1S-6	TP6W1S-4	TP6W1S-6	TP8W1S-4	

Technology	LED RGB FULL COLOR, LED SMD, AMBER					
Resolution [pix]	32x128	48x160	48x160	64x160	64x160	80x160
Pixel Pitch	4	4	6	4	6	4
Number of rows	4 or more	4	4	6	6	8
Luminance (nits)	4000	4000	4000	4000	4000	4000
IP protection	IP54/ IP55 / IP65	IP54 / IP65	IP54 / IP65	IP54 / IP65	IP54 / IP65	IP54 / IP65
Temperature [°C]	-25°/+60°	-25°/+60°	-25°/+60°	-25°/+60°	-25°/+60°	-25°/+60°
MTBF [h]	100 000	100 000	100 000	100 000	100 000	100 000
Vac supply	230 V 50 Hz					
Anti-vandalism	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Brightness sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Glass break sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Case opening sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Shock sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Anti-reflective glass	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Control system	DVI, HDMI, LAN, SERIAL PORT					
Options	Camera one side / double side TTS / SOS					
Total size [mm]	600x230 x190 (+/-30)	customize	customize	customize	customize	customize





LCD TFT passenger information displays

	main station displays	arrival / dep	parture displays	platforn	n displays	platform entrance displays
ТҮРЕ	WGS_3X1	WZS_55	WZS_55_Z (with clock)	WKR_46	WKR_46_Z (with clock)	WPW_32
	(J. C.					

Technology	LCD TFT	LCD TFT				
Resolution	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080
Screen size [inch]	3 x 46"	55"	55"	46"	46"	32"
Luminance (nits)	2500	500 - 2500	2500	2500	2500	500 - 2500
IP protection	IP42	IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65
Temperature (°C)	-10°/+45°	-10°/+45°	-10°/+45°	-40°/+55°	-40°/+55°	-40°/+55°
MTBF [h]	80 000	80 000	80 000	80 000	80 000	80 000
Vac supply	230 V 50 Hz	230 V 50 Hz				
Anti-vandalism	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Brightness sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Glass break sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Case opening sensor	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Anti-reflective glass	\checkmark	\checkmark	✓	\checkmark	\checkmark	\checkmark
Control system	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT				
Options	Digital / analog Clock Camera Redundant power supply	Digital / analog Clock Camera Redundant power supply one side / double side	Digital / analog Clock Camera Redundant power supply one side / double side			
Total size [mm]	3200 x 1100 x 162 (+/-30)	1400 x 1000 x 200 (+/-30)	1400 x 1150 x 200 (+/-30)	750 x 1200 (+/-30)	750 x 1550 x 200 (+/-30)	540 x 820 x 155 (+/-30)

	tunnel	displays	arrival / departure displays		totem style, infokiosk	
ТҮРЕ	WPT_3X1	WPT_3X1_Z (with clock)	WOP_46_W	WOP_46_F	INF_46	INF_32
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Technology	LCD TFT	LCD TFT	LCD TFT	LCD TFT	LCD TFT	LCD TFT
Resolution	5760 x 540	5760 x 540	1920x1080	1920x1080	1920x1080	1920x1080
Screen size [inch]	3 x 1/2 LCD TFT 46"	3 x 1/2 LCD TFT 46"	46"	46"	46"	32"
Luminance (nits)	2500	2500	500 - 3000	500 -3000	500 - 3000	500 - 3000
IP protection	IP42/ IP55 / IP65	IP42/ IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65	IP55 / IP65
Temperature [°C]	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°	-40°/+55°
MTBF [h]	80 000	80 000	80 000	80 000	80 000	80 000
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
Anti-vandalism	\checkmark	\checkmark	\checkmark	\checkmark	✓	\checkmark
Brightness sensor	\checkmark	✓	\checkmark	\checkmark	✓	\checkmark
Glass break sensor	\checkmark	\checkmark	\checkmark	\checkmark	✓	\checkmark
Case opening sensor	\checkmark	\checkmark	\checkmark	\checkmark	✓	\checkmark
Anti-reflective glass	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Control system	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT	DVI, HDMI, LAN, SERIAL PORT
Options	Digital / analog Clock Camera Redundant power supply double side	Digital / analog Clock Camera Redundant power supply double side	Digital / analog Clock Camera Redundant power supply	Digital / analog Clock Camera Redundant power supply one side / double side	Digital / analog Clock Camera Redundant power supply one side / double side	Digital / analog Clock Camera Redundant power supply one side / double side
Total size [mm]	3200 x 480 x 324 (+/-30) double-sided display	3200 x 740 x 324 (+/-30) double-sided display	907 x 1610 x 298 (+/-30)	846 x 2350 x 300 (+/-30)	907 x 2210 x 298 (+/-30)	1040 x 1900 x 298 (+/-30)

LOW POWER passenger information displays



LOW POWER passenger information display

	LCD c	display			E-paper dispaly		
ТҮРЕ	LP1x3 double side	LP1x2 double side	ТҮРЕ	EP13	EP13x2	EP32	EP42
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Technology	LCD LOW POWER	LCD LOW POWER
Color of content	Monochrome	Monochrome
Resolution [pix]	315x20	210x20
Control system	LAN, internet, GSM	LAN, internet, GSM
Backlight	Yes	Yes
IP Protection	IP 65	IP 65
Temperature [*C]	-20°C/+ 50°C	-20°C/+ 50°C
Supply	Battery / 24V	Battery / 24V
Number of rows	1	1
MTBF [h]	80000	80000
Options	one side / double side V-shape	one side / double side V-shape
Anti-glare	Yes	Yes
Casing	Acrylic + stainless steel in RAL color	Acrylic + stainless steel in RAL color
Working time	"24/7"	"24/7"
Total size [mm]	1100x170x190	780x170x190

Screen size [inch]	13,3"	2x13,3"	32"	42"
Technology	E-paper	E-paper	E-paper	E-paper
Color of content	Monochrome	Monochrome	Monochrome	Monochrome
Color scale	16 shades of gray			
Control system	LAN, internet, GSM	LAN, internet, GSM	LAN, internet, GSM	LAN, internet, GSM
Backlight	Yes	Yes	Yes	Yes
IP Protection	IP 65	IP 65	IP 65	IP 65
IK class	IK 08	IK 08	IK 08	IK 08
Temperature [*C]	-20°C - 50°C	-20°C - 50°C	-20°C - 50°C	-20°C - 50°C
Supplay	12V	12V	12V	12V
Resolution [pix]	1600 x 1200	1600 x 1200	2560 x 1440	2880x2160
TTS	Yes	Yes	Yes	Yes
Buttons	optional / depending on the application			
Anti-glare	Yes	Yes	Yes	Yes
Casing	Acrylic + stainless steel in RAL color			
Working time	"24/7"	"24/7"	"24/7"	"24/7"
Total size [mm]	350x500x50 mm	350x800x50 mm	570x840x62 mm	663x1140x80 mm



"The DYSTEN company designed, manufactured, delivered and installed a Dynamic Passenger Information System (...) along with a sound system for the station (in Tarnowskie Gory). 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

Production of LED displays for stations in Tarnowskie Gory.

"Electronic boards supplied by DYSTEN are characterized by high quality and trouble-free operation."

~ Comp S.A., Poland

Production of 101 LCD TFT displays for the Warsaw Rail with SOS panels.





"We are very happy with the up-till-now cooperation, quality of the products, project management and overall logistics provided by DYSTEN as well as with DYSTEN fast reaction for any problems faced during product preparation, roll-out and maintenance phases."

~ Jarosław Kardas, General Menager in Iqu Systems Long-term cooperation on many ITS projects in Europe.

"DYSTEN has completed all project tasks following the order. It has maintained the highest quality standards. DYSTEN team have demonstrated professionalism and high elastic. All works were completed on time and in accordance with the subject of the order."

~ Inet Plus Ltd, Poland

Project for National Railway Stations in Żagań, Chojnów, Pruszków and Jaworzno

"DYSTEN's reliable technology and services offer incredible value and provide continued success to Intelligent Transport System area."

~ Iqube GMBH, Germany

Long-term cooperation on many PID projects in Germany.





"DYSTEN company is a good, reliable partner, and the offered products are high quality and advanced technologically."

Piotr Halagiera, Mayor of the Kwidzyń City, Poland Production of LED displays for the railway station in Kwidzyń.



DYSTEN

DYSTEN – manufacturer of passenger information displays

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changes to its product without notice.









