EPL-05
LED electronic information panel

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- Display of text and graphic information about the public transport lines
- Information displayed at real time
- Automated regulation of LED diode according to the surrounding light
- Automated demisting and de-icing of the screen
- Receiver for the blind
- Acoustic output
- Remote management and monitoring
- Both-sided transmission of data including the video and audio format via optical data network or GSM
- WIFI at bus/tram/train/trolley bus stops for the passengers

Electronic LED information panel serves for displaying information for passengers at bus/tram/train/ trolley bus stops. Passengers are provided with the information mainly on the bus lines, their destinations, times and types of vehicles (e.g. low-floor), such information are displayed with an alphanumeric text combined with simple graphic symbols. The panel can also display information on current changes such as lockouts, significant events in the region et cetera.

Easy access to servicing the device

EPL-05 Panel excels with its information and communication capabilities. The passengers are provided with the real-time information on arrival times or delays. In case of failure of GSM communication with the control centre, the panels are equipped with an off-line version of the bus/train/tram/trolley stop timetables. During such timeout, the line arrival times are displayed in accordance with the topical time.

The whole panel is divided into two parts. The main part is a 5-line LED display consisting of single modules with a matrix of 10 x 32 pixels of monochrome or full colour. Text, graphics, and animations are displayed here. The second, smaller one-line section shows the exact time, which can be replaced with any kind of text if necessary.

In order to ensure maximum readability of the displayed information, the luminance of the diodes is automatically adjusted according to the surrounding light conditions. In addition, the screen automatically dehumidifies and defrosts in unfavourable climatic conditions.

Indoor and outdoor temperature sensors offer values that are used to inform dispatching centre about the operating conditions of the device. The updated measured temperature can also be displayed on the panel display.
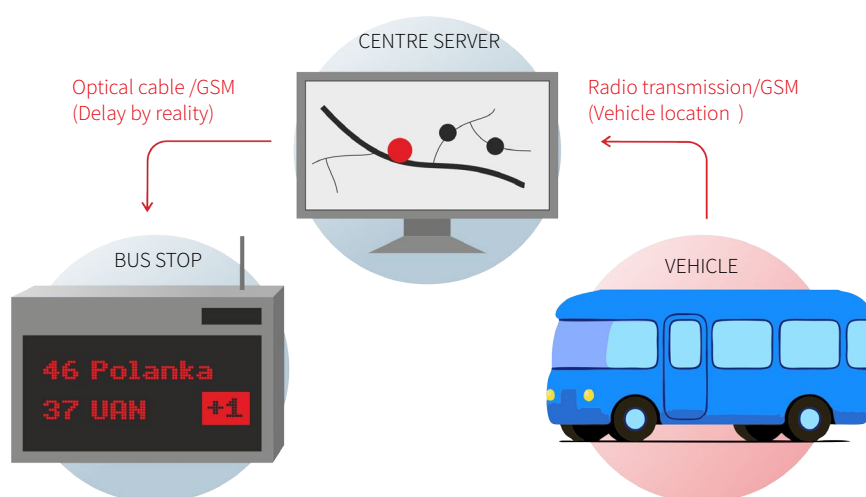
Each EPL-05 panel includes receiver of requests send by radio transmitter for the blind with a higher reach and resistant to noise disturbance. Voice communication is provided by built-in waterproof loudspeaker. It is able

to play a pre-set information or read the displayed information by a voice synthesizer. The loudspeaker also provides a direct announcement for the passengers at the respective bus/tram/train/trolley bus stop (or a group of such e.g. bus stops) by the operator.

The internal minicomputer controls the electronic panel. The computer also performs self-control. Each of the EPL-05 panels has its own IP address so that it can be controlled individually based on the information on the current location of the public transport vehicle and the timetable. Individual controllability also enables its remote administration and monitoring. Wifi, LTE, ETH (metallic or optical) are used for two-way communication among EPL-05, dispatcher centre and/or panels among themselves at one bus/tram/train/trolley bus

DISPLAY OF THE REAL-TIME INFORMATION
BASED ON THE CURRENT VEHICLE POSITION

CENTRE SERVER

Optical cable /GSM
(Delay by reality)

Radio transmission/GSM
(Vehicle location)

BUS STOP

46 Polanka
37 UAN   +1

VEHICLE

- Clearly arranged overview of the current information
- Direct anouncement at a chosen bus/tram/train/trolley bus stop or a group of such stops
- Transmission of the displayed infromation into voice report for the blind
- WIFI at the bus/tram/train/trolley bus stops for passengers´use
- Overview of bus line loads
- Energy-saving operation
- Color variation of LEDs
- Convenient service of the equipment
- Effective crisis communication tool

Use

The Panels are modular and can be assembled exactly according to the needs and wishes of the customer. Their variability makes it possible to be used at any kind of stop included in the Integrated Transport System.

stop. In order to improve the quality of services, Wifi connection is also provided to passengers at stops. The internal backup battery allows you to use the panel functions even after a power failure.

The frame of the panel is made of aluminium profile with surface finish of RAL hue varnish according to the customer's request.

The front part of the panel is covered with a special safety glass provided with a ceramic print on the inner side to be protected against intentional damage. This guarantees its long life and durability. The device is equipped with a Full HD Infrared camera and an accelerometer sensor to ensure the safety of the passengers at the bus/tram/train/trolley bus stops

and to protect both the stops and the panels themselves from damage. If necessary, it instinctively starts automated scanning of the panel's surroundings and sends an alarm message to the dispatcher's centre. The integrated camera also allows image analysis, for example, for detecting or counting people at bus/tram/train/trolley bus stops.

The display area is simply hinged by gas struts for easy access to the interior of the machine during maintenance and servicing.

TECHNICAL PARAMETERS

Power supply	230 V AC / 50 Hz
Input	Average. 60 W, Max. 200 W
Number of lines	5 (160 × 10) a 1 (64 × 10)
Number of display points	8640 (160 × 50 a 64 × 10)
Light point diameter	3 mm
LED spacing	4,6 mm
Diacritics support	Yes
LED Colour	Orange (other colours under agreement)
Integrated loudspeaker	15 W / 4 Ohm
Construction according to	ČSN EN 50125-3
Temperature of the environment	−25 °C up to + 55 °C
Temperature of the store environment	−40 °C up to +70 °C
Cover	IP54
Mounting position	horizontal
Size	950 × 650 × 100 mm (w × h × d)
Weight	30 kg
Camera	Full HD – angle of 120° with IR additional light
Movement sensor	Panel Attack signal
Temperature sensor	Inner and outer
Light sensor	Panel brightness control according to the environment light
Receiver of the radio transmitter for the blind	For playing the audio output
Data communication	LTE/GSM/GPRS/WCDMA/HSPA/ UMTS/EDGE GPS; Wi-Fi a/b/g/n 2,4 and 5 GHz/Ethernet Wi-Fi a/b/g/n 2,4 and 5 GHz/Ethernet
Wi-Fi hotspot	Yes