



The broadcasting system and intercom

Comprehensive solution for public transport vehicles
public



The broadcasting system and intercom

Description of the system

The system is designed for installation in vehicles of public transport and is used to transmit voice information inside the train. It consists of announcement panels and microphones in the driver's cabin, as well as amplifiers, speakers and intercoms for passengers.

Thanks to modern technology and digital signal transmission the system guarantees very high sound quality.

Functionality

Voice information in the broadcasting system:

- ✓ the name of the current station after entering the station area,
- ✓ name of the next station after departure from the current station,
- ✓ broadcasting any defined messages on individual stations, e.g. "Please, leave the vehicle" at the final station or "Welcome on board" at the initial station,
- ✓ possibility of broadcasting messages typed by the driver on the driver terminal,
- ✓ spoken announcement of the train crew.

Intercom subsystem:

- ✓ communication between a passenger and the train crew,
- ✓ communication between the train crew,
- ✓ integration with external systems.



Passenger intercom

External systems,
e.g. Central Unit
of AWIA SDIP® system



Amplifier IP



Announcement panel



Microphone



Speaker

Technical parameters

Announcement panel PZ 01

Power supply	6.5 VDC supplied from the Amplifier IP
Ambient operating temperature	-25°C do 70°C
Ingress Protection	IP20
Maximal power consumption	0,5 W
Dimensions	98 x 60 x 57,3 mm
Mass	0,2 kg

Passenger intercom RZ 01

Power supply	24 VDC or PoE
Maximal power consumption	5 W
Communication interface	Ethernet (M12 connector, 100 Mbit/s)
Button type	INFO button, vandal resistant, green LED backlight The MPI002 / TE / GN / 24 adapted to the requirements of the TSI PRM SOS button, vandal resistant, red LED backlight The MPI002 / TE / RD / 24 adapted to the requirements of the TSI PRM
Button actuation force	to 12 N
Ambient operating temperature	-25°C to 70°C
Ingress Protection	IP20
Dimensions	188 x 126 x 58,2 mm
Additional properties	vandal resistant

Amplifier IP

Maximal power output per channel	20W/4Ω(CH0), 45W/4Ω (CH1 and CH2)
Ambient operating temperature	-25°C to 70°C
Ingress Protection	IP20
Communication interface	Ethernet, audio bus control signals TPC/IP Protocol
Audio input	Microphone, audio bus with control signals, external audio input
Audio output	3 channels
Dimensions	189,1 x 108 x 64,4 mm
Assembly	DIN rail 35 mm

Speaker

Power/ max. power	15 W / 25 W
Impedance	8 Ω
Frequency range	100 - 20000 Hz
Audio sound level	84 dB (1 W /1 m)
Resonant frequency	158 Hz
Mounting hole diameter	Ø 74 mm
Mass	0,230 kg

Microphone

Characteristics	dynamic
Audio frequency range	200 – 12 000 Hz
Impedance	500 Ω
Sensitivity	2 mV/Pa/1kHz
Dimensions	Ø 21 mm x 565 mm
Mass	0,162 kg

Compliance with standards:

- PN-EN 50155** Railway applications - Electronic equipment used on rolling stock
- PN-EN 50121-3-2** Railway applications - Electromagnetic Compatibility
- PN-EN 45545-2+A1** Fire protection in rail vehicles. Part 2: Requirements for materials and components in the field of combustion properties of HL1 and HL2 HL3

