SALTEK®

Overvoltage controlled. ANYWHERE.

SOLUTION

Public address systems

Surge protection of radio systems

Why to Protect?

Public address system is a set of devices to disseminate information on the local territory of the municipality or city.

It is used for the communication and information about activities or about imminent danger in the local area. In some countries, cities and municipalities are obliged to warn and inform their residents in some event of dangers, environmental accidents, floods, fire, etc.

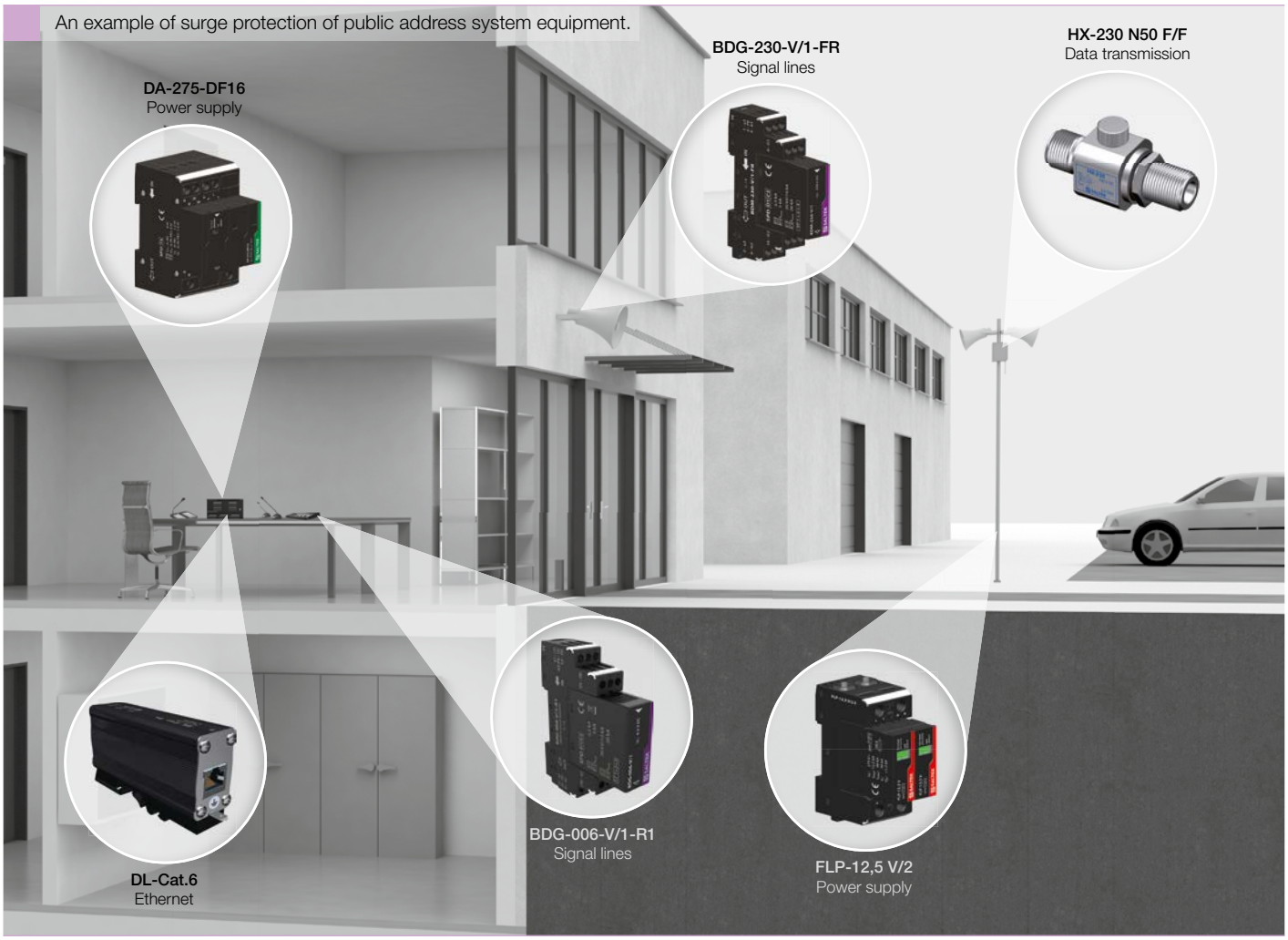
The generall topology of PAS may looks as follow. There are loudspeakers located around the village, city or even around the building only. The signal is distributed over two-wire lines from the central unit and amplifier to the loudspeakers. In the newer installations and systems the signal can be transmitted also wirelessly. An interesting solution is a combination of the technologies to cover remote locations or new parts of the cities with wireless loudspeakers and their receivers.

Due to possible long length of the cable used in wire systems and the voltage losses on it, the signals are often modulated (amplified) to a voltage level of 100 V in these systems, on which amplifiers, speakers and protection devices must be also designed. The modern solution are central units with Ethernet line to PC connection and control, where the broadcasting can be prepared in advance or started automatically at the scheduled time.

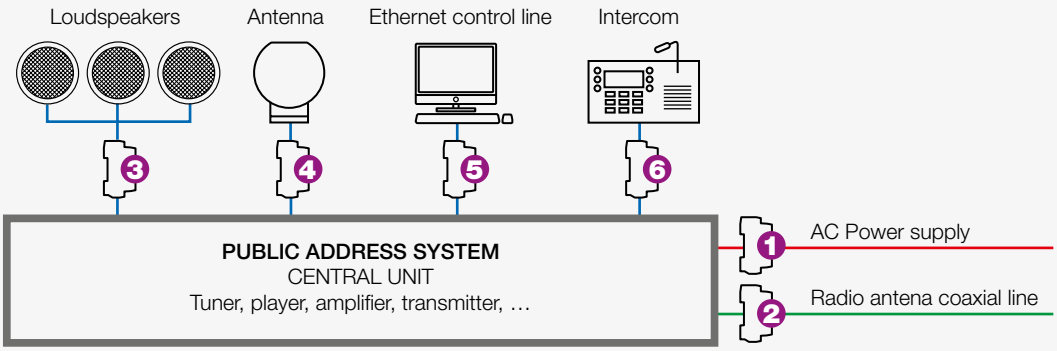
Because the public address system also serves as a part of safety system for reporting dangers in the municipalities, it is very important to ensure its protection against surges, lightning strikes and maintain the most reliable and durable operation.

What to Protect?

- Power supply of the PAS central control unit
- Local power supply protection for wireless laudspeaker units
- Data transmission lines to laudspeakers
- Coaxial lines from antenna for wireless data transfer
- Interfaces and communication lines



Surge protection of the central unit of public address system



Recommended SPDs for public address systems

DA-275-DF16 ❶

A surge arrester with an integrated RFI filter to protect the power supply of the main control unit of public address system against transient overvoltage and RF disturbance.

Connection	Suitable networks	U_C	I_L	I_n (L+N-PE) (8/20 µs)	U_{oc} (L+N-PE)	Remote signalling	Ordering number
Symmetric	TN, TT	275 V AC	16 A	5 kA	10 kV	No	8595090557210

FX-090 F75 T F/F ❷

Lightning current arrester for the input tuner antenna coaxial line.

Location	U_C	I_L	I_{imp} (D1) (10/350 µs)	I_n (C2) (8/20 µs)	U_p (C3)	f_{max}	Ordering number
ST 1	70 V	4 A	2.5 kA	10 kA	600 V	2 150 MHz	8595090533870

BDG-230-V/1-FR ❸

Devices with pluggable modules, lightning current and surge arresters. For the protection of signal lines between central unit of public adress system and the loudspeakers.

Location	Number of lines	U_C	I_L	I_{imp} (D1)	I_n (C2)	U_p (C3) core-core	Floating	Ordering number
ST 1+2+3	1	250 V DC	0.5 A	2.5 kA	10 kA	350 V	Yes	8595090557081

BDG-110-V/1-R ❸

Devices with pluggable modules, surge arresters. For the protection of signal lines between central unit of public adress system and the loudspeakers.

Location	Number of lines	U_C	I_L	I_{imp} (D1)	I_n (C2)	U_p (C3) core-core	Floating	Ordering number
ST 1+2+3	1	120 V DC	0.5 A	2.5 kA	10 kA	170 V	No	8595090565093

HX-230 N50 F/F ❹

Lightning current protection for transmission antenna coaxial lines. Suitable for the combined signal and power supply installations.

Location	U_C	I_L	I_{imp} (D1) (10/350 µs)	I_n (C2) (8/20 µs)	U_p (C3)	f_{max}	Ordering number
ST 1+2	180 V DC	6 A	2.5 kA	10 kA	650 V	3 500 MHz	8595090535119

DL-Cat.6 ❺

Fine protection for Ethernet Cat.6 line for the communication and control line to the main PAS unit.

Location	Number of lines	U_C	I_L	I_n (C2) (8/20 µs)	U_p (C3) core-core	U_p (C3) core-PE	Ordering number
ST 3	1	8.5 V DC	0.5 A	1.6 kA	65 V	350 V	8595090536031

BDG-006-V/1-R1 ❻

Combined coarse and fine protection. For the protection of two-core telecommunication interface of the intercom.

Location	Number of lines	U_C	I_L	I_{imp} (D1)	I_n (C2)	U_p (C3) core-core	Floating	Ordering number
ST 1+2+3	1	8.5 V DC	1 A	2.5 kA	10 kA	12 V	No	8595090554196

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