



Project Reference

# DEVI ice and snow melting systems

provide safe access to the Sofia Metro

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# Metro passengers are set to benefit from a new DEVI solution

In a move to protect passengers from the effects of the bitter Bulgarian winter, the Sofia Metro is installing a range of snow and ice protection systems.



DEVI systems are both precise and economical. The new DEVI ice and snow melting systems will be a boon for the high-traffic central Metro stations, ensuring passenger safety on open stairways.

Boyan Deltchev,  
project manager  
Trace Group Holding



The stairways at the entrances and exits of three central Metro stations in Sofia will be equipped with state-of-the-art DEVI ice and snow melting systems. The solution is beautifully simple. 11,550 metres of heating cable will be installed in the steps of the new stations, providing total ice and snow protection for the Metro's many users.

## A satisfied customer

The installation is being handled by Trace Group Holding, whose project manager Boyan Deltchev explained the reasons for choosing DEVI:

"DEVI systems are both precise and economical. The new DEVI ice and snow melt-

ing systems will be a boon for the high-traffic central Metro stations, ensuring passenger safety on open stairways. Canopies alone are not enough to provide reliable protection against slippery or icy steps. It is also great that the anti-icing systems operate fully automatically. They detect the need for snow melting and operate only when necessary." Thanks to the intelligent digital sensors for humidity and temperature, the systems operate very precisely with minimal energy consumption.

"Another advantage of the systems is that the heating cables are easily installed under the covering of the steps. This does not affect their design in any way or require any changes to architectural plans. I think that

cable heating solutions will be used more extensively in the execution of the coming phases of the Sofia Metro expansion project, since they are effective and economical. Their benefits will be apparent in the next winter season after the new Metro stations are put into service."

## Strong growth potential for DEVI

Vera Bardarova, Sales Director of DEVI Bulgaria, emphasized that DEVI was specifically chosen for their unrivalled expertise in this area. Trace Group was looking for a highly reliable system that would operate automatically and prevent accidents caused by icy steps and pavements. As Bardarova explained, "For Trace Group, the most important considerations were the



high quality of DEVI products, the 20-year warranty, and the excellent technical and service support provided by our experts.”

### Extremely effective and economical

The Metro’s new ice and snow melting systems operate fast and completely automatically. The advanced control concept provides high performance while keeping operating costs low.

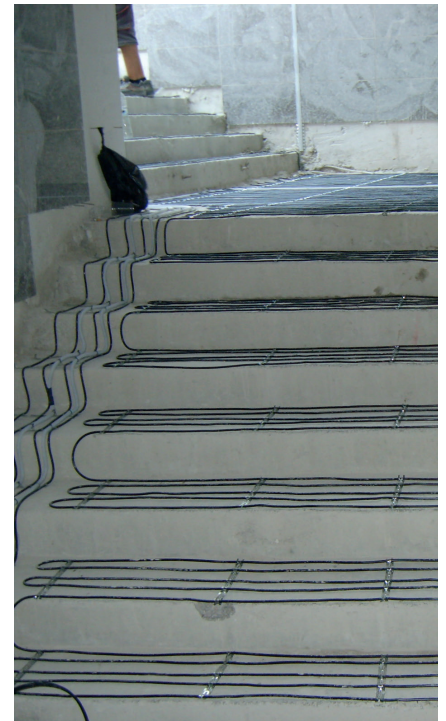
The digital sensors constantly monitor weather conditions and provide real-time information to the DEVIreg™ 850 microprocessor controller. This ensures that the system is activated during snowy and icy conditions but is switched off when the weather

is dry – even in very cold periods – thus saving valuable energy. The DEVIreg™ 850 controller operates with extreme precision to reduce power consumption. This reduces energy consumption to a minimum without compromising the high level of safety provided by the system.

### A rapidly developing sector

More and more customers are coming to understand the clear benefits offered by ice and snow melting systems. The sector grew by 32 percent in 2011 and DEVI sees enormous potential for the future. Henrik Londerhof, Director of Markets, Portfolio and Strategy at DEVI explained the background to this growth:

“These solutions help us meet a wide range of weather-related challenges. Structural damage to roofs caused by heavy falls of snow is just one issue. Alongside that are things like frozen gutters and burst water pipes, with the buildings damage they cause. And then there are issues like icy stairways or pavements in public areas with high traffic, such as the Sofia Metro. These are just some of the many practical problems that our systems either mitigate or entirely eliminate. Many municipalities, companies and property owners realize that it is extremely worthwhile to invest in technology that actively prevents serious damage or injury, thereby saving money in the long term.”



### Installed system Key data

The complete DEVI snow and ice melting system has a total rated power of 233 kW and will protect 780 square metres of stairway against ice and snow. The highly effective system is controlled by a total of eight “intelligent” DEVIreg™ 850 thermostats equipped with microprocessors. In addition 28 digital sensors constantly monitor weather conditions.

**Metro station 9-II “NDK”:** 190 m<sup>2</sup> of external stairway are protected against icing by 2,800 metres of DEVIsnow™ 20T (DTCE) heating cable with a total rated power of 56.5 kW. The system is controlled by three DEVIreg™ 850 thermostats with microprocessors and eight digital ground sensors.

**Metro station 10-II “Sv. Naum”:** The installed system area is 450 m<sup>2</sup> with 6,700 metres of DEVIsnow™ 20T (DTCE) heating cable with a total rated power of 135.5 kW. The system is controlled by three DEVIreg™ 850 thermostats with microprocessors and 12 digital ground sensors.

**Metro station 11-II “James Baucher”:** The ice and snow melting system covers 140 m<sup>2</sup> of stairway with 2,050 metres of DEVIsnow™ 20T (DTCE) heating cable with a total rated power of 41 kW. The system is controlled by two DEVIreg™ 850 thermostats with microprocessors and eight digital ground sensors.

### DEVI system advantages at a glance:

- Safely protects people and buildings
- No need for snow removal
- Low operating costs
- Can be installed under concrete, tiles or asphalt
- Zone control for optimum protection and energy use
- Reduced-power operation

# Intelligent solutions with lasting effect

DEVI Electric Heating Systems is Europe's leading manufacturer of intelligent electrical floor heating systems and outdoor systems for ice and snow melting.

A position secured by a dedicated focus on advanced and above all user friendly systems, developed in the world's largest competence center for floor heating.

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