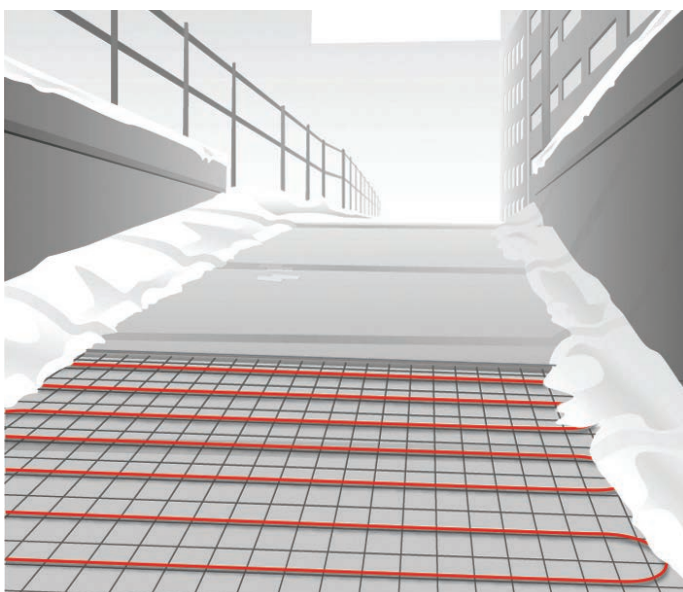


### Specification guideline - Snow and ice melting system for ramps & access ways

#### CONTROL AND MONITORING PANEL



All ramps/access way heating circuits, where the heating cable is installed directly under hot poured asphalt, shall be controlled and monitored via an integrated, electrically protected multi circuit control panel, nVent RAYCHEM SBS-xx-MV-20, by nVent.

The panel should be purpose built and approved for the control and monitoring of nVent RAYCHEM EM2-MI mineral insulated heating cables, by nVent. The panel shall incorporate the energy efficient control and monitoring device, nVent RAYCHEM VIA-DU-20 and have 3 sensor control logic, sensing

- Ground Temperature
- Ground Moisture
- Ambient/Air Temperature

#### Product, Technical, and performance requirements:

- The control and monitoring panel shall have, as a minimum
- EN60204-1/EN60439-1 compliance, CE approved for use with nVent RAYCHEM heat tracing systems
- RAL7035 (Light Grey) Coated Metal Housing – IP54 rated
- A volt free alarm contact to indicate
  - RCD or circuit breaker failure mode
  - Loss of power to the unit
  - Controller or sensor error mode
- VIA-DU-20 multi-sensor control unit as the central control device for standard heating/economy functions
- Separate circuit connection for a drainage channel heater, switch by the VIA-DU-20
- Type C circuit protection and residual current device (300 mA rated) per heating circuit
- Mounted terminal blocks for easy connection of the heating circuits within the panel

In addition to 3 sensor control and monitoring capability, the controller must have the following functions

- Freezing rain precaution function to switch heating circuits on when there is a risk of freezing rain or sleet
- Programmable controller and digital display
- Monitoring of sensor defects
- Alarm relay for remote monitoring at the BMS

The ramp heating circuits shall be switched via a contactor and be protected with an MCB (BS EN 60898 type C or D or equivalent) and RCD (300 mA sensitivity, tripping within 100 ms). Isolators shall be provided for each circuit.

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