

SPECIFICATION GUIDELINE FROST PROTECTION FOR PIPES



MULTI-CIRCUIT CONTROL & MONITORING

- All frost protection trace heating circuits shall be controlled and monitored via an integrated electrically protected, multi circuit control panel, nVent RAYCHEM nVent SBS-xx-SV, by nVent.
- The panel shall provide control and monitoring functionality for a multiple circuit pipe frost protection system including the provision of all electrical and circuit protection devices. The electrical panel shall be certified and approved by the manufacturer for use with the trace heating system. The control panel shall be available, as standard, in the following variants:

SBS-03-SV (Up to 3 circuit control and monitoring)

SBS-06-SV (Up to 6 circuit control and monitoring)

SBS-09-SV (Up to 9 circuit control and monitoring)

SBS-12-SV (Up to 12 circuit control and monitoring)

- The control panel shall be capable of either ambient temperature sensor or line temperature sensing control and monitoring. Where ambient sensing is specified, proportional ambient sensing control (PASC) shall be implemented to ensure energy efficiency. Where a line sensing is specified, a line sensor shall be provided for every 3 circuits to facilitate greater control of the system and energy efficiency.
- The control and monitoring panel shall have, as a minimum:
 - EN60204-1/EN60439-1 compliance, CE approved for use with heat tracing systems.
 - RAL7035 (Light Grey) Coated Metal Housing – IP54 rated.
- Type C circuit protection and residual current device (30mA rated) per heating circuit.
Built-in potential free alarm contact to signal:
Circuit breaker failure mode
 - RCD failure mode
 - Loss of power mode
 - Controller failure or error mode

- Selection switch to enable system testing and override capability. Selectable switching: Automatic mode/Off Mode/On mode (override of control and sensor.)
- Lights to indicate when circuits are on (green) and warning lights (red) to indicate alarm or failure.
- All electrical connections between the electrical supply, control panel, and the heating circuits shall be carried out by an approved electrical contractor.
- All heat tracing circuits shall be controlled and monitored via a multi-circuit control panel, SBS-xx-SV, by nVent, with integrated circuit protection, MCB's (BS EN 60898 type C/D) and RCD (30mA sensitivity, tripping within 100ms).
- The control panel shall be EN60204-1/EN60439-1 compliant, CE approved for use with heat tracing systems.
- The control panel shall have an integrated power load management algorithm device to avoid peak power loading, with phased switch-on of heating circuits to manage the power loading.
- The panel shall include, for ambient sensing, an integrated proportional ambient sensing controller (PASC), or for line sensing, a line sensing controller with a minimum of 1 sensor per 3 heating circuits.

IN ENGINEERING NOTES COLUMN

- All frost protection heat tracing circuits shall be controlled and monitored via a multi-circuit control panel, SBS-xx-SNR, by nVent, with integrated circuit protection, MCB's (BS EN 60898 type C/D) and RCD (30 mA sensitivity, tripping within 100 ms).
- The control panel shall be EN60204-1/EN60439-1 compliant, CE approved for use with heat tracing systems.
- The panel shall include, for ambient sensing, an integrated proportional ambient sensing controller (PASC), or for line sensing, a line sensing controller with a minimum of 1 sensor per 3 heating circuits.

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