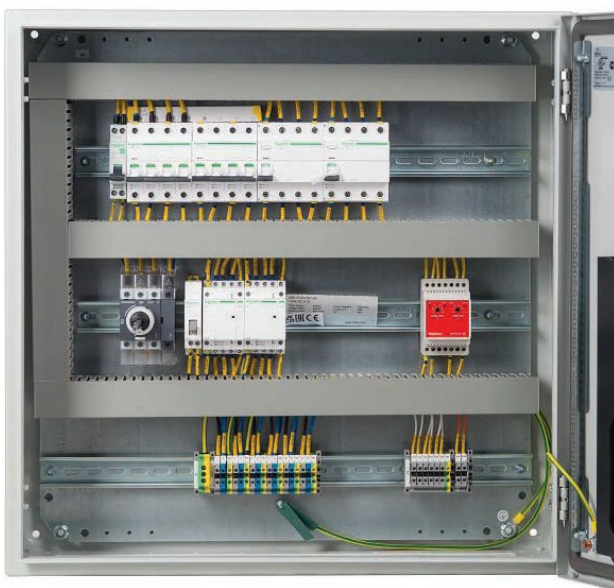


## Panels for Roof & Gutter De-Icing and Surface Snow Melting

### PRODUCT DESCRIPTION



nVent RAYCHEM SBS-R-EM control panels provide an integrated solution for the control of nVent RAYCHEM self-regulating heating cables and constant wattage heating mats for surface snow melting and roof & gutter de-icing applications.

The control panels comprise the energy efficient, multi-sensor RayStat-M2 controller. The control panels monitor the temperature and moisture of surfaces, roofs & gutters and switch on the snow melting system only when required.

The SBS-R-EM panels are available in 1, 3, 6 and 9 heating circuit versions, with 10A, 16A and 20A switching capability per circuit.

The panels also include electrical circuit protection devices (C-type circuit breakers and RCD protection) for safety, peace of mind, and electrical regulation compliance.

### ADVANTAGES

- Integrated electrical safety and control, panel for single/multiple heating circuits from the heat tracing manufacturer.
- Designed specifically for nVent RAYCHEM self-regulating heating cables and constant wattage heating mats.
- Multi-sensor control system for energy efficiency optimisation.
- Everything in a single control panel. Simply add a power supply.
- Complete warranted solution from the manufacturer.

## TECHNICAL DATA

Control	nVent RAYCHEM RayStat-M2 control device, pre-installed and electrically connected
Setpoint temp.	Programmable by the user
Sensors (ordered separately)	RayStat-M2-G-Sensor (ground sensor), RayStat-M2-R-Sensor (gutter sensor), RayStat-M2-A-Sensor (ambient sensor)
Panel supply voltage	230 Vac, 50 Hz or 400 Vac, 50 Hz, 3 L/N/PE (depending on panel selected)
Heater circuit supply voltage	230V
Approvals	CE (IEC61439-2), UKCA, EAC
Main switch	40–80A
RCD	30mA
Line circuit breakers	10, 16, 20A (Type C) per heating circuit
Panel material	1 and 3 circuits panels – plastic enclosure, 6 and 9 circuit panels – metal enclosure
IP rating	IP65 (plastic and metal enclosures)
Ambient temperatures	+10°C to +35°C
Colour	RAL 7035 (Light Grey)
Installation location	Indoor

## RELATED PRODUCTS

The SBS-R-EM control panels are compatible with the nVent RAYCHEM surface snow melting and roof & gutter de-icing heating cables and mats:

- EM2-XR
- GM-2X
- WINTERGARD mats and cables

## ENCLOSURE TYPE

Product Name	Number of Heating Circuits	Enclosure type	Dimension			Heater circuit	Weight
			Width (mm)	Height (mm)	Depth (mm)	Amps	Kg
SBS-R-EM-1x20A	1	Plastic	310	436	148	1 x 20A	6
SBS-R-EM-3x20A	3	Plastic	310	586	148	3 x 20A	8
SBS-R-EM-6x20A	6	Metal	600	600	210	6 x 20A	32
SBS-R-EM-9x20A	9	Metal	600	600	210	9 x 20A	32
SBS-R-EM-1x10A	1	Plastic	310	436	148	1 x 10A	6
SBS-R-EM-3x10A	3	Plastic	310	586	148	3 x 10A	8
SBS-R-EM-6x10A	6	Metal	600	600	210	6 x 10A	32
SBS-R-EM-9x10A	9	Metal	600	600	210	9 x 10A	32
SBS-R-EM-1x16A	1	Plastic	310	436	148	1 x 16A	6
SBS-R-EM-3x16A	3	Plastic	310	586	148	3 x 16A	8
SBS-R-EM-6x16A	6	Metal	600	600	210	6 x 16A	32
SBS-R-EM-9x16A	9	Metal	600	600	210	9 x 16A	32

## ORDER REFERENCE

Product Name	Order Reference	Description
RayStat-M2-G-SENSOR	1244-016964	Ground temperature and moisture sensor for the RayStat-M2 controller and SBS-R-EM panel range, 10 m supply cable (the sensor is sold separately from the SBS-R-EM panel to allow installation into the floor surface prior to the installation of the control panel).
RayStat-M2-R-SENSOR	1244-016965	Gutter moisture sensor for RayStat-M2 controller and SBS-R-EM panel range, 10 m supply cable (the sensor is sold separately from the SBS-R-EM panel to allow installation in the gutter prior to the installation of the control panel).
Raystat-M2-A-SENSOR	1244-016963	Ambient temperature sensor for RayStat-M2 controller and SBS-R-EM panel range (the sensor is sold separately from the SBS-R-EM panel to allow installation under the roof eave prior to the installation of the control panel).
SBS-R-EM-1x20A	1244-016636	Surface snow melting or roof & gutter de-icing control panel for 1 circuit of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 20 amps)
SBS-R-EM-3x20A	1244-016637	Surface snow melting or roof & gutter de-icing control panel for up to 3 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 20 amps)
SBS-R-EM-6x20A	1244-016638	Surface snow melting or roof & gutter de-icing control panel for up to 6 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 20 amps)
SBS-R-EM-9x20A	1244-021421	Surface snow melting or roof & gutter de-icing control panel for up to 9 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 20 amps)
SBS-R-EM-1x10A	1244-021413	Surface snow melting or roof & gutter de-icing control panel for 1 circuit of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 10 amps)
SBS-R-EM-3x10A	1244-021414	Surface snow melting or roof & gutter de-icing control panel for up to 3 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 10 amps)
SBS-R-EM-6x10A	1244-021415	Surface snow melting or roof & gutter de-icing control panel for up to 6 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 10 amps)
SBS-R-EM-9x10A	1244-021416	Surface snow melting or roof & gutter de-icing control panel for up to 9 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 10 amps)
SBS-R-EM-1x16A	1244-021417	Surface snow melting or roof & gutter de-icing control panel for 1 circuit of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 16 amps)
SBS-R-EM-3x16A	1244-021418	Surface snow melting or roof & gutter de-icing control panel for up to 3 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 16 amps)
SBS-R-EM-6x16A	1244-021419	Surface snow melting or roof & gutter de-icing control panel for up to 6 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 16 amps)
SBS-R-EM-9x16A	1244-021420	Surface snow melting or roof & gutter de-icing control panel for up to 9 circuits of nVent RAYCHEM self-regulating heating cables and mats (Max. circuit load: 16 amps)

**Note:** customized panels can be ordered, please contact nVent.

## POSSIBLE ADDITIONAL OPTIONS

- Installation outdoors
- Installation of a heater
- Rain sheet cover
- Lightning protection

## INSTALLATION INSTRUCTIONS

Complete panel wiring information and schematics are provided with the product. All electrical installations must be carried out by an approved electrician in compliance with local electrical requirements and norms.

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