

### Panels for pipe freeze protection and temperature maintenance

#### DESCRIPTION



The nVent RAYCHEM SBS control panel range provides a complete solution for nVent RAYCHEM self-regulating heating cables for pipe freeze protection and temperature maintenance. It offers control with a pipe line sensor and / or a PASC (Proportional Ambient Sensing Control) option.

The models in this series control up to 12 heating circuits. To ensure safe operation, the control panel is equipped with circuit breakers (C-type) and residual current protection for safe operation. The installed Elexant 450c control unit can operate 2 zones with different parameters independently of one another. The controller SBS-MONT-ELEXANT-450c needs to be ordered separately.

The control panel is pre-wired and only needs to be connected to a main power supply (400/230V, 3P/N/PE).

#### ADVANTAGES

- Fast connection of multiple heating circuits directly to the control panel
- No additional connections or junction boxes required
- Connection of 3–12 heating circuits to a single control panel
- Circuit over-current and RCD protection integrated directly into the control panel
- No separate safety devices required
- Complete system directly from the manufacturer
- The system and components have been selected for optimal use as a pipe freeze protection and temperature maintenance systems.
- Collective error / alarm

#### TECHNICAL DATA

|                         |   |
|-------------------------|---|
| Control setting         | Each controller can control up to 2 separate groups of 3 circuits with independent parameters and control mode (second sensor sold separately).<br><ul style="list-style-type: none"> <li>• SBS-FP-MONT-ELEXANT-450c electronic control with max. 2 sensors making 2 zone control possible;</li> <li>- Ambient temperature-dependent control in the PASC process and / or</li> <li>- Control with pipe line sensor</li> </ul> |
| Voltage Operation panel | 400/230V 3P/N/PE  |
| Voltage Heating circuit | 230 V AC, 50/60 Hz  |
| Sensor                  | NTC-Type is used as ambient temperature sensor (PASC) and/or pipe line sensor   |
| Approvals               | CE (approval according to IEC 61439)  |
| Main switch             | According to selected model (32–100 A)  |
| RCD                     | 30 mA   |
| Circuit breaker         | 16A, C-type, per heating circuit  |
| Alarm feature           | 1 potential free alarm contact in panel; 1 alarm light in the door  |
| Operation mode switch   | Auto/Manual<br>Auto = Control in function (Standard mode)<br>Manual = all heating circuits switched on (uncontrolled operation)   |

## RELATED PRODUCTS

The control panel SBS-FP-xx-16A can be operated with the following freeze protection heating cables from nVent RAYCHEM:

10XL-ZH - 215 meter per heating circuit

15XL-ZH - 155 meter per heating circuit

26XL-ZH - 135 meter per heating circuit

31XL-ZH - 110 meter per heating circuit

FS-C10-2X - 150 meter per heating circuit

(Startup temperature of +5°C minimum. For heating circuits with longer lengths or lower startup temperatures, please contact nVent)

## INSTALLATION

The product is supplied with complete circuit and connection diagrams. A qualified electrician must carry out all work on electrical systems in compliance with the applicable regulations and standards.

## TECHNICAL DATA

|                       |  |
|-----------------------|--|
| Color                 | Textured paint, RAL 7035, light-grey                               |
| Enclosure             | Sheet steel wall-mounted enclosure; IP65 (For indoor installation) |
| Installation location | Exposure temperatures +10°C to +35°C                               |
| Power supply          | 3-phase 400V/230V, 50 Hz with N and PE                             |
| Heating cable         | 3 Terminals for max. 10 mm <sup>2</sup>                            |

| Panel type                               |          |    | SBS-FP-3x16A | SBS-FP-6x16A | SBS-FP-9x16A | SBS-FP-12x16A |
|--|----------|----|--------------|--------------|--------------|---------------|
| Max. quantity of heating circuits        |          |    | 3            | 6            | 9            | 12            |
| Max. quantity of controller Elexant 450c |          |    | 1            | 1            | 2            | 2             |
| Max. power output kW                     |          |    | 11           | 22           | 33           | 44            |
| Circuit breaker on-site max. A           |          |    | 3 x 25A      | 3 x 32A      | 3 x 63A      | 3 x 80A       |
| Enclosure mounting                       |          |    | Wall-mounted | Wall-mounted | Wall-mounted | Wall-mounted  |
| Dimension                                | Width    | mm | 400          | 600          | 800          | 800           |
|  | Height   | mm | 600          | 600          | 800          | 800           |
|  | Depth    | mm | 210          | 210          | 210          | 210           |
| Weight                                   | Approx.. | kg | 20           | 32           | 54           | 56            |

## REFERENCE DATA

| Product name             | Item number | Product description   |
|--------------------------|-------------|---|
| SBS-FP-3x16A             | 1244-022467 | Control panel for max. 3 heating circuits<br>(Note: Without controller – Controller SBS-FP-MONT-ELEXANT-450c must be ordered separately)                            |
| SBS-FP-6x16A             | 1244-022468 | Control panel for max. 6 heating circuits<br>(Note: Without controller – Controller SBS-FP-MONT-ELEXANT-450c must be ordered separately)                            |
| SBS-FP-9x16A             | 1244-022469 | Control panel for max. 9 heating circuits<br>(Note: Without controller – Controller(s) SBS-FP-MONT-ELEXANT-450c must be ordered separately)                         |
| SBS-FP-12x16A            | 1244-022470 | Control panel for max. 12 heating circuits<br>(Note: Without controller – Controller(s) SBS-FP-MONT-ELEXANT-450c must be ordered separately)                        |
| SBS-FP-MONT-ELEXANT-450c | 1244-022471 | Electronic controller Elexant 450c, with installation in the control panel; can operate 2–heating zones independently<br>(Controller(s) must be ordered separately) |
| SENSOR-NTC-10M           | 1244-015847 | Additional sensor for 2nd heating zone (to be ordered separately)   |

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

**Europe, Middle East, Africa**

Tel +32.16.213.502  
Fax +32.16.213.604  
thermal.info@nVent.com

**Asia Pacific**

Tel +86.21.2412.1688  
Fax +86.21.5426.3167  
cn.thermal.info@nVent.com



Our powerful portfolio of brands:

**CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER**