

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 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 system.
- Collective error/alarm

TECHNICAL DATA

Control setting

Each panel is equipped with 1 Elexant 450c controller.

Each controller can control up to 2 separate zones (groups) of 3 circuits with independent parameters and control mode.

- The ELEXANT 450c controller with max. 2 sensors makes 2 zone control possible with
 - Ambient temperature-dependent control in the PASC mode and / or
 - Control with pipeline sensor
- Factory setting operation mode is in PASC (Proportional ambient sensing control).
- Built-in Elexant 450c controller allows connection to second sensor to operate different heating circuits.
- For the panels SBS-FP-9x16A-ELEXANT450c and SBS-FP-12x16A-ELEXANT450c an additional second Elexant 450c controller can be built in, to operate max. 4 different heating circuit zones (groups) independently. For this additional option the item SBS-FP-MONT-ELEXANT-450c is available.

Voltage Operation panel

400/230V 3P/N/PE

TECHNICAL DATA

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 Auto = Control in function (Standard mode) Manual = all heating circuits switched on (uncontrolled operation)

RELATED PRODUCTS

The control panel SBS-FP-Xx16A-ELEXANT450c can be operated with the following nVent RAYCHEM freeze protection heating cables:

10XL-ZH – 204 meter per heating circuit

15XL-ZH – 153 meter per heating circuit

26XL-ZH – 116 meter per heating circuit

31XL-ZH – 91 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 ²

Panel type			SBS-FP-3x16A-ELEXANT450c	SBS-FP-6x16A-ELEXANT450c	SBS-FP-9x16A-ELEXANT450c	SBS-FP-12x16A-ELEXANT450c
Max. number of heating circuits			3	6	9	12
Max. number of Elexant 450c controllers			1	1	2	2
Max. number of sensors			2	2	3	4
Number of sensors = Heating zones Standard (Max.)			1 (2 Max.)	1 (2 Max.)	1 (2-3 Max.*)	1 (2-4 Max.*)
Max. power output		kW	11	22	33	44
Circuit breaker on-site		max. A	3 x 25 A	3 x 32 A	3 x 63 A	3 x 80 A
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

* additional 2nd control unit SBS-FP-MONT-ELEXANT-450c is needed.

REFERENCE DATA

Product name	Item number	Product description
SBS-FP-3x16A-ELEXANT450c	1244-022467	Control Panel for pipe freeze protection, 2 x16 A / 1x 16 A including 1 Elexant 450c controller
SBS-FP-6x16A-ELEXANT450c	1244-022468	Control panel for pipe freeze protection, 6x16 A, including 1 Elexant 450c controller
SBS-FP-9x16A-ELEXANT450c	1244-022469	Control panel for pipe freeze protection, 9x16 A, including 1 Elexant 450c controller
SBS-FP-12x16A-ELEXANT450c	1244-022470	Control panel for pipe freeze protection, 12x16 A, including 1 Elexant 450c controller
SBS-FP-MONT-ELEXANT-450c	1244-022471	Electronic controller Elexant 450c, with installation in the control panel; can operate another 2 heating zones independently; option for SBS-FP-9x16 A and SBS-FP-12x16 A panels only. (Controller must be ordered separately)
SENSOR-NTC-10M	1244-015847	Spare part line sensor
GM-TA-AS	1244-017965	Spare part ambient temperature sensor including enclosure

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

POSSIBLE ADDITIONAL OPTIONS

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

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