

# Junction Boxes for Light Indication and Connection of Heating Cables to Power Supply

Junction boxes for light indication are designed to indicate the availability of power for heating sections based on self-regulating electric heating cables\* and is intended for connecting heating cables to power network.

Box models are supplied in 2 installation variants:

- complete with a pipe installation stand UVK for direct mounting onto the surface of a pipeline or tank;
- for installation onto a wall, onto a nearby metal structure or using a bracket directly onto the pipeline (brackets supplied separately).

Box model JB2221-223-1X320\* supports light indication only – end box.

Boxes JB2221-223 – allow connecting of one self-regulating heating cable to the power cable or two cables if the box is used for splicing.

Boxes JB2221-333 – allow connection to the power cable of up to three self-regulating heating cables with screw terminal straps and up to two – with push-in terminals.

The enclosure design ensures moisture and dust ingress protection IP66 and high corrosion stability. Cable glands of the box are intended for connecting unarmored power cables with a diameter of 7 to 18 mm or armored power cables with a diameter of 12 to 20 mm.

The installed terminal blocks allow the connection of multi-core or single-core wires with a cross-section of 1.5 to 10 mm<sup>2</sup>. Design options with screw or push-in terminals are available to order.

A light indicator with a super bright LED signals voltage at the heating section termination.

The green LED has a long service life and has a 180° angle view, including in direct sunlight.

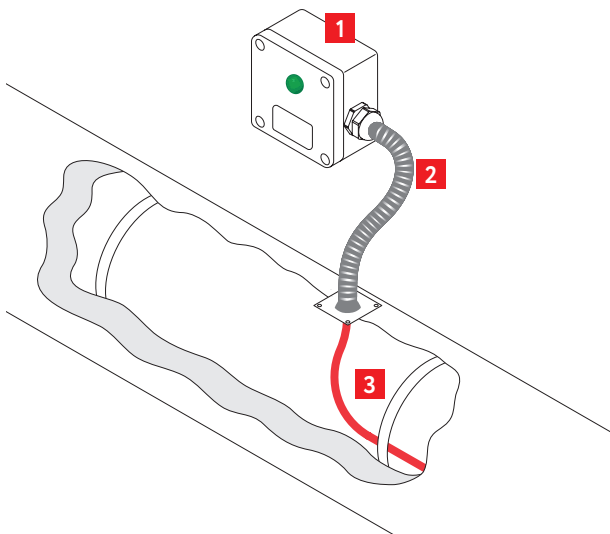
## Features and Application Areas

- Provides light indication of power voltage presence at the end of heating cable section and connection of cables to power network
- Compatible with all types of self-regulating electric heating cables
- Approved for installation in explosion hazard areas
- High mechanical strength
- Critical component parts are included in the scope of supply. Metal pipe strap PFS/3, cable entry unit and flexible sealed gland FSG to be ordered separately
- Wide application range
- Quick and easy installation
- High thermal stability
- Non-corrosive

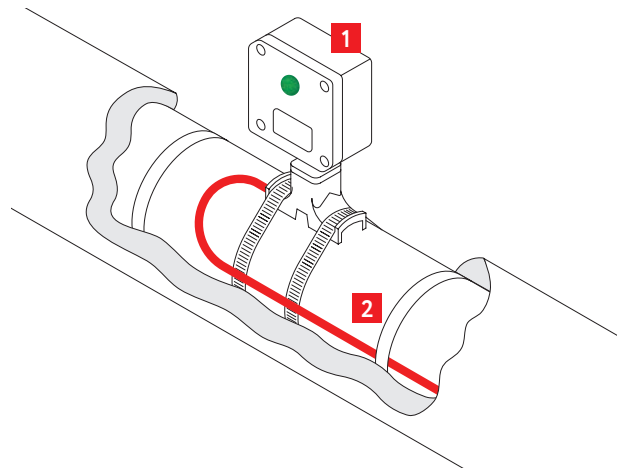


\* This junction box is compatible with self-regulating heating cables HTM, HTA, HTP, BTC, BTX, CTE.

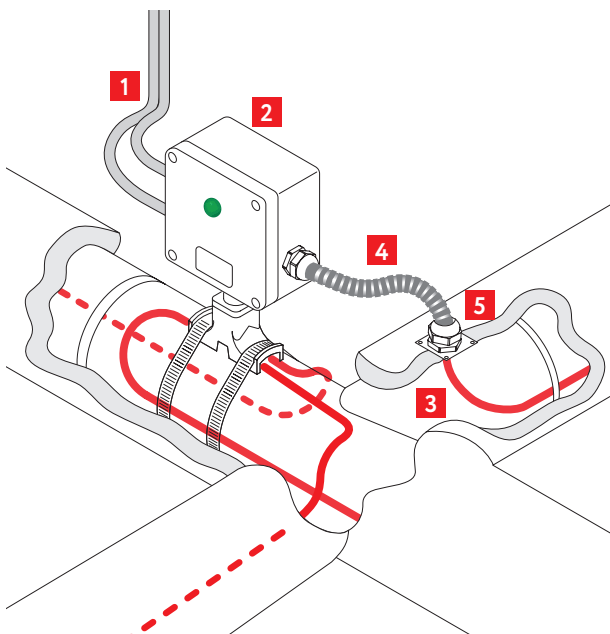
# Light Indication of Voltage Presence and Power Supply of Self-Regulating Heating Cables



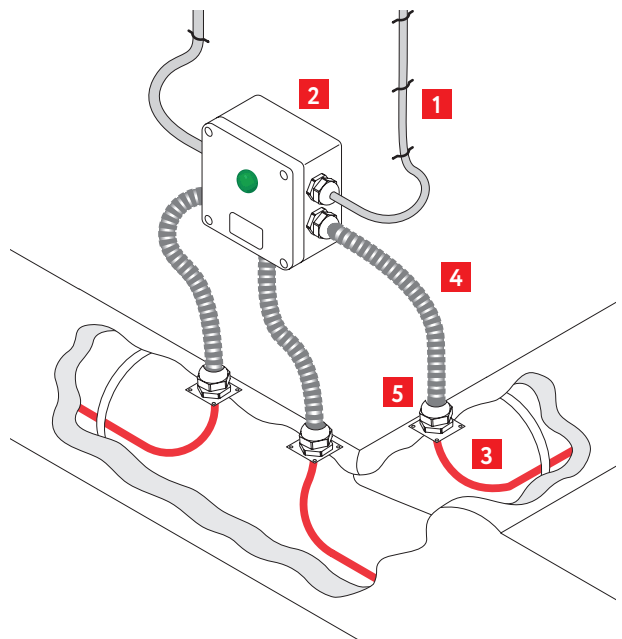
1. Junction box JB2221-223-2X(27-31)
2. Flexible sealed gland
3. Heating cable



1. Junction box JB2221-223-1X(21-23)
2. Heating cable



1. Power cable
2. Junction box JB2221-333-1X(23-30)
3. Heating cable
4. Flexible sealed gland
5. Cable entry unit



1. Power cable
2. Junction box JB2221-333-2X(27-33)
3. Heating cable
4. Flexible sealed gland
5. Cable entry unit

# Junction Boxes for Light Indication and Connection of Heating Cables to Power Supply

## Technical Data

Dust and moisture protection rating	IP66
Explosion protection marking	Ex db eb IIC T6...T3 Gb Ex tb IIIC T85°C...T165°C Db
Temperature group of the explosion hazard area	T6
Operating ambient temperature range	-60...+55 °C
Operating voltage	max 550 V
Operating current	max 50 A
Electric life of the LED	>10 <sup>5</sup> hours
LED power intake	<1 W
Light source	green LED
View angle	180°
Enclosure dimensions	JB2221-223 122×120×91.5 mm JB2221-333 160×160×94.5 mm
Total weight (maximum)	JB2221-223 1.55 kg JB2221-333 2.44 kg
Material Box / Color	Glass fiber reinforced polyester / Black
Material Pipe installation support / Color	

## Accessories (to be ordered separately)

Connection kit for self-regulating heating cables is specified depending on the type of cable used.

Brackets PB, KP, PL.JB0606 – for mounting the box onto the pipeline.

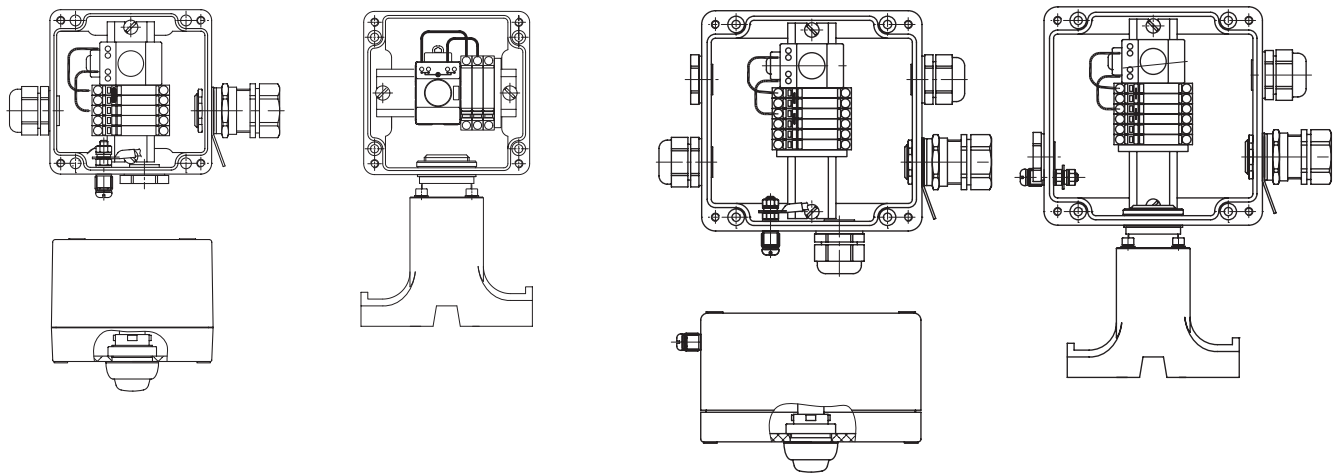
Z-profile – for mounting the box onto a metal structure or onto a wall.

Metal pipe strap PFS/3 – for mounting the bracket onto the pipeline.

Flexible sealed gland FSG – for mechanical protection of cables in open space sets.

Cable entry unit LEK/U – for penetrating of thermal insulation.

## Construction



Boxes JB2221-223 (left) and JB2221-333 (right) with push-in terminals. Quantity, type of terminals and placement of DIN-rail with terminal block could differ from drawings.

# Light Indication of Voltage Presence and Power Supply of Self-Regulating Heating Cables

## Delivery Set

Model	Cable glands and plugs (P=plastic; B=brass)								Earthing tag	Terminated earthing wire	Pipe installation support	Terminal block	Type of terminals	Light Indicator	Order code		
	Side A		Side B		Side C		Side D										
	Cable gland	Screw plug	Cable gland	Screw plug	Cable gland	Screw plug	Cable gland	Screw plug									
JB2221-223-1X320*											V	1L,1N,1PE	screw/push-in	V	3210001605		
JB2221-223-1X21						1xM25 P			V	V	V			V	3210002201		
JB2221-223-1X22					1xM25 B				V	V	V	1L,1N,1PE / 2L,1N,2PE	screw/push-in	V	3210002202		
JB2221-223-1X23					1xM25 P				V	V	V			V	3210002203		
JB2221-223-2X27			1xM25 P						V	V				V	3210002204		
JB2221-223-2X28				1xM25 P	1xM25 P			1xM25 P	V	V		1L,1N,1PE / 2L,1N,2PE	screw/push-in	V	3210002205		
JB2221-223-2X29			1xM25 P		1xM25 P			1xM25 P	V	V				V	3210002206		
JB2221-223-2X30				1xM25 P	1xM25 B			1xM25 P	V	V				V	3210002207		
JB2221-223-2X31			1xM25 P		1xM25 B			1xM25 P	V	V				V	3210002208		
JB2221-333-1X23					1xM25 P			2xM25 P	V	V	V			2L,2N,2PE	screw/push-in	V	3210002209
JB2221-333-1X24					1xM25 P			1xM25 P	V	V	V					V	3210002210
JB2221-333-1X25					1xM25 P			2xM25 P	V	V	V	V	3210002211				
JB2221-333-1X26					1xM25 B			2xM25 P	V	V	V	V	3210002212				
JB2221-333-1X27					1xM25 B			1xM25 P	V	V	V	V	3210002213				
JB2221-333-1X28					1xM25 B			1xM25 P	V	V	V	V	3210002214				
JB2221-333-1X29					1xM25 B			2xM25 P	V	V	V	V	3210002215				
JB2221-333-1X30					1xM25 B			1xM25 B 1xM25 P	V	V	V	V	3210002216				
JB2221-333-2X27				1xM25 P	2xM25 P			2xM25 P	V	V		V	3210002217				
JB2221-333-2X28			1xM25 P		2xM25 P			2xM25 P	V	V		V	3210002218				
JB2221-333-2X29			1xM25 P		1xM25 B	1xM25 P		2xM25 P	V	V		V	3210002219				
JB2221-333-2X30			1xM25 P		1xM25 B 1xM25 P			1xM25 P	V	V		V	3210002220				
JB2221-333-2X31				1xM25 P	1xM25 B	1xM25 P		1xM25 B 1xM25 P	V	V		V	3210002221				
JB2221-333-2X32				1xM25 P	1xM25 B 1xM25 P			1xM25 B 1xM25 P	V	V		V	3210002222				
JB2221-333-2X33			1xM25 P		1xM25 B 1xM25 P			1xM25 B 1xM25 P	V	V		V	3210002223				

\* X = 1 for screw type terminal block; X=2 for push-in type terminal block

Order codes are valid for junction boxes with push-in terminal block.

Additional junction box configurations are available upon request.

## Approvals



Nº IECEx CCVE 18.0006X



\* Certification is underway