

# Self-regulating heating cable HTB

- Automatically adjusts heat generation in response to changes in the pipe temperature
- Can be cut to the desired length without compromising on performance
- Will not overheat or burn even when overlapping
- Full set of control tools and accessories
- Approved for installation in safe, hazardous and corrosive areas
- Operating voltage ~22–24 V (~11–12 V available on request)



1. 1.00 mm<sup>2</sup> nickel-plated copper conductors
2. Semi-conductive self-regulating matrix
3. Matrix insulation
4. Tinned copper braid
5. Overjacket thermoplastic or fluoropolymer

## Versions

- HTB...BT** Design with a thermoplastic elastomer jacket over tinned copper wire armor for added protection.
- HTB...BP** Design with a fluoroplastic jacket over tinned copper wire armor for added protection in locations exposed to corrosive chemicals or vapors.

## Approvals

- № 16.00338.120  
№ TC RU C-RU.AA87.B.00340  
№ C-RU.ПБ37.B.02047.

## Key features

HTB is an industrial grade self-regulating heating cable designed for low loads and used for protection against freezing or maintaining the desired temperature of industrial pipelines and tanks in the construction industry, temperature controlled storage and road transportation.

It can be easily cut to the desired length in place to exactly match the pipeline length.

HTB cable is approved for installation in safe and explosive areas pursuant to international standards, as well as the Russian standards GOST R IEC 60079-0-2011, GOST R IEC 60079-7-2012, GOST IEC 60079-30-1-2011.

Self-regulation properties enhance the safety and reliability of the cable. HTB will neither overheat nor burn, even when overlapping. Heat generation is self-regulated in response to changes in temperature.

Installation of the HTB is straightforward, requires little time and does not require any special skills or tools. All components for connecting or splicing the ends and connecting to a power source are available in convenient kits.



## Technical specifications

Maximum continuous operating temperature (energized)	65 °C
Maximum continuous exposure temperature (de-energized)	85 °C
Ambient temperature range	-60...+55 °C
Minimum installation temperature:	
HTB BT	-30 °C
HTB BP	-60 °C
Rated voltage	~22–24 V (~11–12 V available on request)
Ex marking	1Ex e IIC T3...T6 Gb X
Temperature class	T6
IP rate	IP67
Maximum braiding resistance	10 Ohm/km

## Weight and dimensions

Type	Nominal size, mm	Weight, kg/100 m	Minimum bending radius <sup>°</sup> , mm
HTB...BT	10.5×5.9	10.5	30
HTB...BP	10.5×5.9	12.0	30

<sup>°</sup> The minimum bending radius is given for a temperature of -20 °C.

## Accessories

(to be ordered separately)

Junction boxes of series PTB 401, 402 (see pp. 48–55); PTB 601, 602 (see pp. 64–71)

TKL connection kit for junction boxes – see p. 88

TKL/J connection kit for junction boxes without terminal connector – see p. 89

TKT/M kit for connection to the installation wire (without boxes, up to +125 °C) – see p. 89

Cable fasteners – see pp. 98–99

## Ordering information

**Example: 12HTB24-BT**

① ② ③ ④ ⑤ ⑥

1. Linear power 12 W/m (to IEC 60079-1-30)
2. Type of self-regulating heating cable:  
HT – low temperature
3. Cable version: B – low-voltage
4. Power supply voltage: 1 – ~11–12 V, 2 – ~22–24 V
5. Braiding material: B – copper tinned wire
6. Outer jacket material: T – thermoplastic elastomer,  
P – fluoropolymer

## Max. heating circuit length

(or combined length of a section of same grade connected in parallel) depending on the type of automatic circuit breaker:

Type	Activation temperature, °C	24 V		
		6 A	10 A	16 A
12HTB	5	8	14	20
	0	8	12	20
	-20	6	10	16
	-40	4	8	12
17HTB	5	6	10	16
	0	6	10	16
	-20	6	8	14
	-40	4	8	12

For use with type C circuit breakers to GOST R 50345-2010 (IEC 60898-1:2003)

<sup>°</sup> When the heating section is switched on, there is a surge of current (starter current). Within 5 minutes after switching on, the current stabilizes. The maximum value of the starter current can exceed by a factor of 5 to 6 the nominal current of the automatic circuit breaker.

## Power output curve

Nominal power output at rated voltage 24 V.

Linear power, W/m

