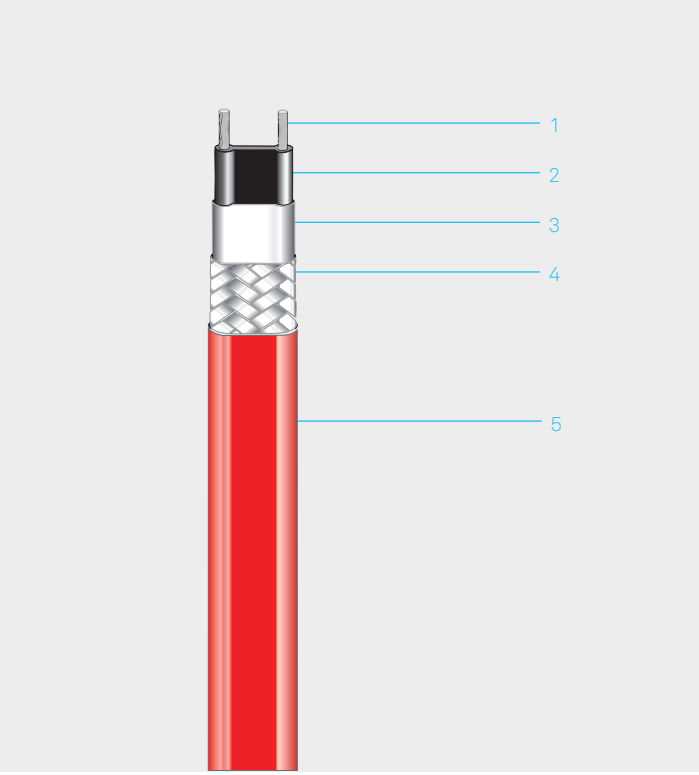
BARTEC

Self-regulating heating cable HSB

High temperature, self-regulating parallel heating cable



1	Conductors: stranded copper wire, 1.25 mm², nickel-plated
2	Self-regulating polymer heating element
3	Fluoropolymer electrical insulation jacket
4	Nickel plated copper braiding
5	Fluoropolymer protective jacket

- Can be cut to length at random thanks to its parallel current supply
- Resistant to chemical influences thanks to its protective Fluoropolymer protective jacket
- Simple installation thanks to its high flexibility

A temperature-dependant resistive element between two parallel copper conductors regulates and limits the heat output of the heating cable.

This output regulation is carried out automatically along the entire length of the heating cable according to the prevailing ambient temperature. If the ambient temperature rises, the power output of the cable is reduced. Thanks to the parallel design the heating cable can be cut to any required length. This feature considerably simplifies project planning and installation. The heating cable is cut and terminated directly on the construction site according to the circumstances. If the cable will be damaged, it is not necessary to replace the whole cable. BARTEC HSB is available with different power outputs. The heating system must be designed to ensure that the maximum exposure temperature of +120 °C will not be exceeded when it is energized.

Areas of application
The HSB heating cable is suitable for electric trace heating in the industrial area and can be exposed to a temperature of up to 180 °C (power off). With the fluoropolymer-protective jacket, the heating cable is resistant to oil, greases and most chemicals. For questions regarding the chemical resistance please contact your BARTEC sales representative.

Explosion protection

Marking ATEX	Ⓔx II 3G Ex 60079-30-1 IIC T3, T4, Gb Ⓔx II 3D Ex 60079-30-1 IIIC T170°C, T130°C, Db

Technical data

Nominal voltage	AC 208 V to 277 V, 120 V on request
Max. continuous operating temperature, energized	+120°C
Max. continuous exposure temperature, de-energized	+180°C
Min. installation temperature	-60°C
Min. start-up temperature	-60°C
Temperature class	T4: 3HSB2, 5HSB2 T3: 10HSB2, 15HSB2, 20HSB2
Max. braid resistance	<18,2 Ω/km
Dimensions with braiding and jacket	10,2 mm x 4,8 mm
Min. bending radius	10 mm

Power output at +10 °C and 230 V

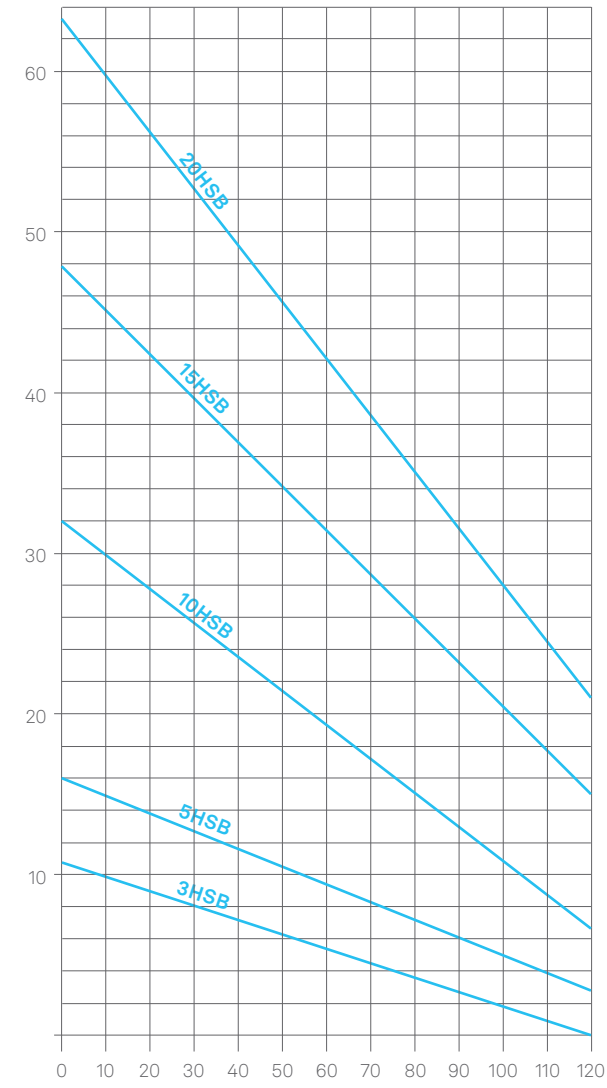
3HSB2	10 W/m
5HSB2	15 W/m
10HSB2	30 W/m
15HSB2	45 W/m
20HSB2	60 W/m

Max. length of heating circuit at 230 V for automatic circuit-breakers with C characteristic

Circuit breaker size	Start-up temperature	3HSB2	5HSB2	10HSB2	15HSB2	20HSB2
16A	+ 10 °C	230 m	164 m	92 m	67 m	52 m
	0 °C	217 m	155 m	87 m	64 m	49 m
	- 20 °C	195 m	141 m	79 m	58 m	45 m
20A	+ 10 °C	231 m	188 m	115 m	82 m	65 m
	0 °C	231 m	188 m	109 m	79 m	61 m
	- 20 °C	231 m	177 m	98 m	72 m	56 m
25A	+ 10 °C	231 m	188 m	133 m	82 m	75 m
	0 °C	231 m	188 m	133 m	82 m	75 m
	- 20 °C	231 m	188 m	133 m	82 m	70 m
32A	+ 10 °C	231 m	188 m	133 m	82 m	75 m
	0 °C	231 m	188 m	133 m	82 m	75 m
	- 20 °C	231 m	188 m	133 m	82 m	75 m

These circuit lengths may be exceeded dependat on specific design parameters.

HSB characteristics



Power output on insulated steel pipes at 230 V under nominal conditions

Ordering information

Type	Heating output	Order no.
3HSB2-CT	10 W/m	C7-5855-710F
5HSB2-CT	15 W/m	C7-5855-715F
10HSB2-CT	30 W/m	C7-5855-730F
15HSB2-CT	45 W/m	C7-5855-745F
20HSB2-CT	60 W/m	C7-5855-760F