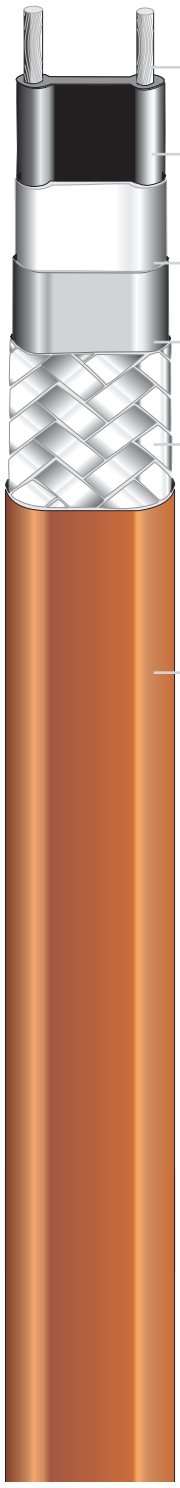
- Can be cut at random length thanks to its arallel current supply
- Electrically and mechanically protected by a tinned copper braiding
- Simple installation thanks to its high flexibility and favourable dimensions



1. Conductors: stranded copper wire 1.25 mm^2, tinned

2. Self-limiting polymer heating element

3. Inner polyolefin electrical insulation jacket thermally fused to the heating element (bonded jacket)

4. Outer polyolefin electrical insulation jacket

5. Tinned copper braiding

6. Polyolefin or fluoropolymer protective jacket

A temperature-dependant resistive element between two parallel copper conductors regulates and limits the heat output of the heating tape according to the ambient temperature. If the ambient temperature rises, the power output of the heating tape is reduced. This self-limiting property prevents overheating even when the tapes are crossed. A temperature limiter is not necessary (also not in hazardous areas). Thanks to the parallel design the heating tape can be cut and installed to any required length. The self-limiting heating tape is available with different power outputs and protective jackets. The protective outer jacket of either fluoropolymer or polyolefin protects the copper braiding from corrosion and chemical impact. Two jackets under the protective braiding provide electrical insulation. The inner one of the two jackets is thermally fused to the heating element (bonded jacket). The heating system must be designed to ensure that the maximum operating temperature of 65 °C will not be exceeded when it is energized. When it is switched off, the heating tape can be exposed to a temperature of 85 °C, not more than 1,000 hours cumulated.

Areas of application

The PSB heating tape is suitable for electric trace heating for frost protection of pipelines and vessels. While the polyolefin protective jacket is used where there are aqueous, inorganic chemicals, the fluoropolymer protective jacket is suitable for organic chemicals. For questions regarding the chemical resistance please contact your BARTEC sales representative.

Explosion protection

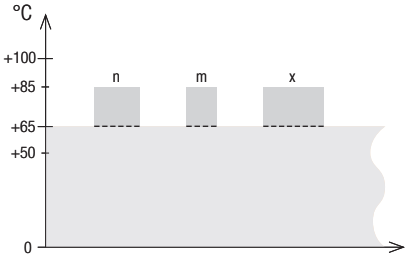
Marking	Ⓔx II 2G Ex e IIC T5, T6 Gb Ⓔx II 2D Ex tb IIIC T95 °C, T 80 °C Db
Certification System	KEMA 08 ATEX 0111 X IECEx KEM 09.0084X TC RU C-DE.ГБ06.B.00230 CSA 1862457
Certification Heating tape	KEMA 02 ATEX 2326 U IECEx KEM 07.0047 U DNV E-12874 VDE 128263

Other approvals and certificates, see www.bartec.de

Technical data

Nominal voltage	AC 208 V to 254 V, AC 110 V to 120 V
Max. exposure temperature	switched on +65 °C switched off +85 °C
Min. installation temperature	-55 °C
Min. start-up temperature	-40 °C
Max. braid resistance	<18.2 Ω/km
Dimensions with braiding and jacket	11.8 x 5.8 mm with polyolefin protective jacket 11.6 x 5.6 mm with fluoropolymer protective jacket
Min. bending radius	25 mm

Maximum exposure temperature

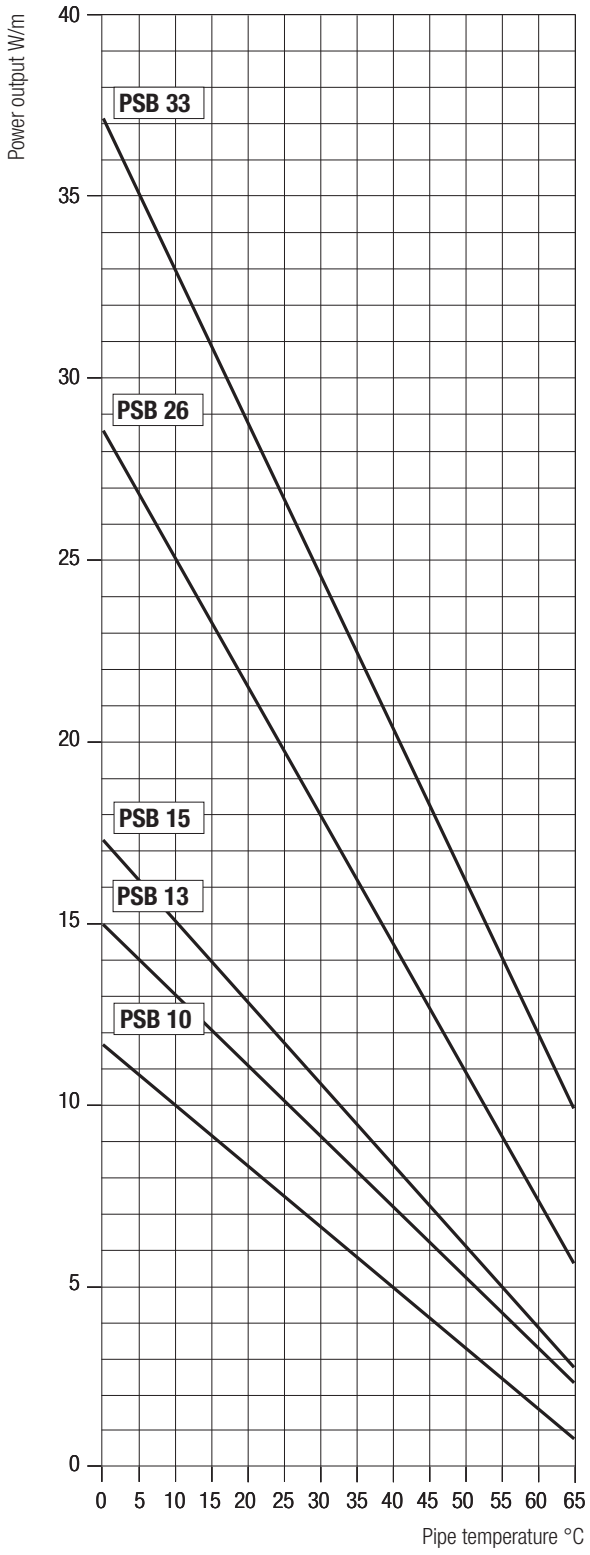


Continuous operation, switched on heating tape
Period of time in switched-off state , n + m + x ... ≤ 1000 h
(n, m, x... ≤ 48 hours, breaks in between at least 4 weeks)

Power setting at +10 °C

Power output	PSB 10	PSB 13	PSB 15	PSB 26	PSB 33
at AC 230 V	10 W/m	13 W/m	15 W/m	25 W/m	33 W/m
at AC 120 V	10 W/m	13 W/m	15 W/m	25 W/m	33 W/m

PSB characteristics



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

Max. length of heating circuit at 254 V for automatic circuit-breakers with C characteristic

Circuit breaker size	start-up temperature	PSB 10	PSB 13	PSB 15	PSB 26	PSB 33
16 A	+10 °C	205 m	169 m	145 m	88 m	70 m
	-15 °C	139 m	111 m	93 m	58 m	49 m
	-30 °C	120 m	94 m	77 m	45 m	43 m
20 A	+10 °C	205 m	179 m	162 m	117 m	90 m
	-15 °C	186 m	149 m	125 m	75 m	64 m
	-30 °C	150 m	124 m	106 m	64 m	52 m
25 A	+10 °C	205 m	179 m	162 m	120 m	98 m
	-15 °C	190 m	160 m	142 m	95 m	80 m
	-30 °C	170 m	150 m	135 m	82 m	65 m
32 A	+10 °C	205 m	179 m	162 m	126 m	108 m
	-15 °C	195 m	174 m	160 m	117 m	95 m
	-30 °C	195 m	174 m	160 m	100 m	82 m

Max. length of heating circuit at 120 V for automatic circuit-breakers with C characteristic

Circuit breaker size	start-up temperature	PSB 10	PSB 13	PSB 15	PSB 26	PSB 33
16 A	+10 °C	95 m	78 m	67 m	43 m	33 m
	-15 °C	69 m	55 m	45 m	30 m	25 m
	-30 °C	58 m	47 m	39 m	26 m	21 m
20 A	+10 °C	95 m	86 m	80 m	58 m	45 m
	-15 °C	90 m	72 m	60 m	38 m	32 m
	-30 °C	75 m	59 m	49 m	31 m	26 m
25 A	+10 °C	95 m	86 m	80 m	60 m	50 m
	-15 °C	92 m	80 m	70 m	45 m	38 m
	-30 °C	85 m	72 m	65 m	42 m	34 m
32 A	+10 °C	95 m	86 m	80 m	63 m	54 m
	-15 °C	95 m	86 m	80 m	55 m	45 m
	-30 °C	95 m	86 m	80 m	53 m	43 m

Ordering information

PSB parallel heating tape	Protective jacket	Type	Order no.
AC 254 V self-limiting Ⓔx explosion protected Ⓜ media protected	fluorpolymer	PSB 10	**07-5801-2105**
		PSB 13	**07-5801-2135**
		PSB 15	**07-5801-2155**
		PSB 26	**07-5801-2265**
		PSB 33	**07-5801-2335**
	polyolefin	PSB 10	**07-5801-2106**
		PSB 13	**07-5801-2136**
		PSB 15	**07-5801-2156**
		PSB 26	**07-5801-2266**
		PSB 33	**07-5801-2336**
AC 120 V self-limiting Ⓔx explosion protected Ⓜ media protected	fluorpolymer	PSB 10	**07-5801-1105**
		PSB 13	**07-5801-1135**
		PSB 15	**07-5801-1155**
		PSB 26	**07-5801-1265**
		PSB 33	**07-5801-1335**
	polyolefin	PSB 10	**07-5801-1106**
		PSB 13	**07-5801-1136**
		PSB 15	**07-5801-1156**
		PSB 26	**07-5801-1266**
		PSB 33	**07-5801-1336**

Technical data subject to change without notice.