

# Self-Limiting Heat Tracing Cable Type PSB.../ HSB...

### 1 Application

Combined with a suitable insulation self-limiting heat tracing cables are designed to protect the medium in pipe lines and fittings against freezing, condensation and solidification.

To maintain the temperature at a defined setpoint a temperature controller with sensor can be connected in series with the heating circuit.

#### 2 Features

- · Power output dependent on pipe temperature.
- No temperature limiter required.
- Heating circuits from 1 m length can be connected directly to the operating voltage
- Simple on-site installation even in hazardous areas



The synthetic heating element between the parallel copper wires has the same effect as temperature-dependent resistors laid parallel to each other.

Consequently, the power output on the piece of pipe line that has to be heated can differ locally. In areas of heat dissipation caused by pipe supports, higher current flows through the heating element than in areas that are better insulated and are exposed to strong sunlight. These temperature characteristics prevent overheating even when the cable is overlapped.

The copper braiding guarantees electric safety to VDE 0100 and also increases the mechanical stability of the cable.

The outer protective jacket of fluoropolymer or polyolefin (PSB-..-6) provides resistance to corrosion and the effects of chemicals.

## 5 Application

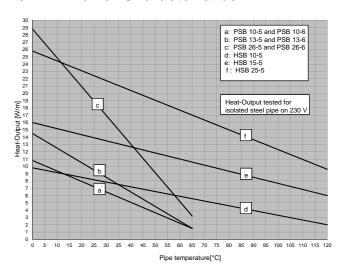
All types of heat tracing cables with associated installation fittings can be used in hazardous areas up to zone 1:

**PSB** .. - 5 for humid areas and exposure to organic chemicals

**PSB** .. - 6 for humid areas and exposure to inorganic chemicals

**HSB** .. - 5 for humid areas and exposure to organic chemicals as well as pipe lines periodically subjected to steam cleaning

#### 6 Power Characteristics



# 4 Types and Technical Data

Туре	Heat-Output at +10°C	Ignition Protection class	Max. Permissible A Permanently*	Amb. Temp. cumulative 1000 hrs.**	max. Length***	EC Type- examination certifacte
PSB 10-5	9,2 W/m	II 2G EEx e II T6	+65°C	+85°C	198 m	KEMA 02 ATEX 2326 U
PSB 13-5	12,3 W/m	II 2G EEx e II T6	+65°C	+85°C	164 m	KEMA 02 ATEX 2326 U
PSB 26-5	24,9 W/m	II 2G EEx e II T6	+65°C	+85°C	92 m	KEMA 02 ATEX 2326 U
PSB 10-6	9,2 W/m	II 2G EEx e II T6	+65°C	+85°C	198 m	KEMA 02 ATEX 2326 U
PSB 13-6	12,3 W/m	II 2G EEx e II T6	+65°C	+85°C	164 m	KEMA 02 ATEX 2326 U
PSB 26-6	24,9 W/m	II 2G EEx e II T6	+65°C	+85°C	92 m	KEMA 02 ATEX 2326 U
HSB 10-5	9,1 W/m	II 2G EEx e II T3	+120°C	+190°C	200 m	KEMA 02 ATEX 2327 U
HSB 15-5	15,1 W/m	II 2G EEx e II T3	+120°C	+190°C	153 m	KEMA 02 ATEX 2327 U
HSB 25-5	24,4 W/m	II 2G EEx e II T3	+120°C	+190°C	107 m	KEMA 02 ATEX 2327 U

\* Heater on \*\* Heater off \*\*\* at Setpoint +10°C

HD391-3e-PSB / HSB Page 1 from 2



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### 7 Heat Tracing Connection System

The connection between the heat tracing cable and the power supply cable consists of a plug and a sleeve of high temperature-steady Thermoplast. For using "plug-in" technique for hazardous areas two remarks are available.

- PLEXO P-CW (for Heatincable PSB...)
- PLEXO H-CW (for Heatincable HSB...)

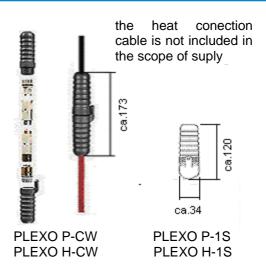
The end of the heat tracing cable from same material has the ordering example:

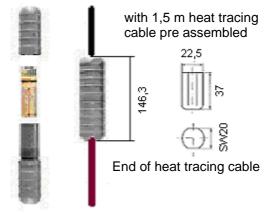
- PLEXO P-1S (für Heizband PSB...)
- PLEXO H-1S (für Heizband HSB...)

Connection port TWISTO-B-S is certified only for non harzardous areas in combination with heating cable PSB... For applications of high temperatures PLEXO-H-CW with Heat tracing cable HSB... must be used also here.

# 8 Special Advantages

- Quick and easy installation on site with no need for special tools.
- Putting technology reliable in service for connection and final conclusion. (plug and socket)





TWISTO-B-S (Connection-port)



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#### 9 Technical Data

	PLEXO P-CW PLEXO P-1S	PLEXO H-CW PLEXO H-1S	TWISTO-B-S Connection and end of heat tracing cable
Ignition protection class	II 2G EEx e II T6	II 2G EEx e II T3	VDE RegNr. A 405
EC Type-examination certifacte	KEMA 00 ATEX 2017	KEMA 00 ATEX 2018	
Temperature Resistance	+65°C (C) * +85°C cumulative 1000h**	+120°C (V) * +180°C cumulative 1000h **	+80°C short time to +100°C
Mains Voltage	AC/DC 254 V	AC/DC 254 V	AC 250 V
Protection Degree	IP 66	IP 66	IP 66

<sup>\*</sup> Heater on \*\*Heater off

HD391-3e-PSB / HSB Page 2 from 2