THORNE & DERRICK INTERNATIONAL
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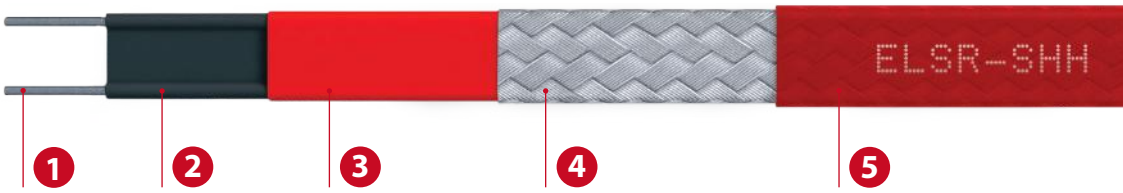
eltherm®

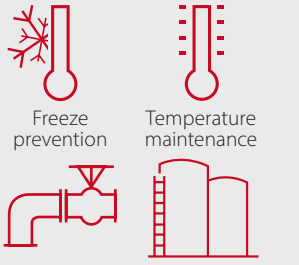
Type ELSR-SHH
up to 250 °C



1	**Bus wire**	Nickel plated copper
2	**Self-regulating heating element**	
3	**Insulation**	
4	**Protection**	Protective braid (Nickel plated copper)
5	**Outer jacket**	Fluoropolymer

At a Glance

Applications



- Chemistry and Petrochemistry
- Oil and Gas Industry
- Power plants

Benefits

- Temperature classification T3*
- Five nominal outputs
- Moisture proof
- Resistant to chemicals
- Use in hazardous areas

*Except for 75 W/m: T2

Design

BOT Protective braid, fluoropolymer outer jacket

Approvals

- Trace Heater classification
  II 2G Ex 60079-30-1 IIC Gb
  II 2D Ex 60079-30-1 IIIC Db
- System classification
  II 2G Ex eb IIC T3 Gb
  II 2D Ex tb IIIC T200°C Db
- Certification
  EPS 17 ATEX 1 169 X
  EPS IECEx 17.0064X
  CML20ATEX3171
- Temperature class
  T3/T2

Checklist ELSR-SHH

Power Connection & End Termination		
ELVB-SREx-25	Power connection, glued, Gland M25 x 1,5, PE, Ex e	0X81PA1
EL-ECSH-Ex	Silicone termination cap, red, glued, with ex marking	0X81EH2
Junction Boxes		
ELAK-Ex-2.00	110 x 75 x 57 mm, polyester, IP66, 1 Trace heater, 1 Power cable	0X85200
ELAK-Ex-4.01	122 x 120 x 90 mm, polyester, IP66, 1 - 3 Trace heaters, 1 Power cable	0X85401
ELAK-5	122 x 120 x 90 mm, polyester, 3 breakouts M25, IP 66	0920013
Ex-it-R	ø 150 x 125 mm, 3 heaters, 1 Pt100 power supply lead, incl. mounting stand, IP 65	0X80070

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Technical Information

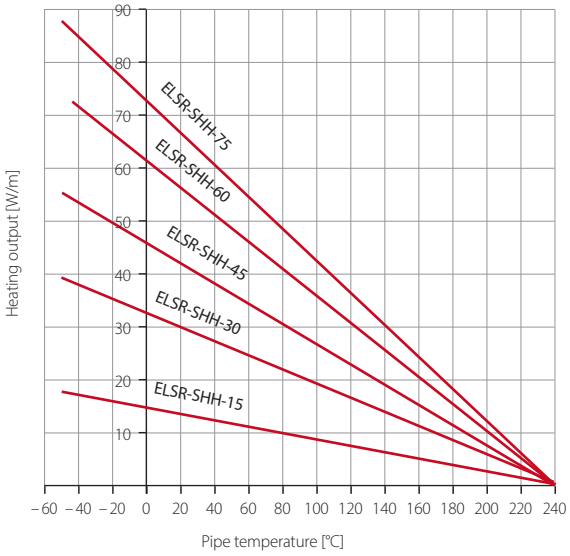
Maximum maintain temperature	250 °C
Maximum exposure temperature (de-energized)	250 °C
Nominal voltage	230 V
Bending radius, min.	35 mm
Installation temperature, min.	– 40 °C

Heating circuit lengths on the following conditions

- 230 V nominal voltage
- Delayed action circuit breakers (C-characteristic) with 80 % maximum load
- Maximum 10 % line voltage drop on heating cable bus wire
- Power connection to one heater end

ELSR-SHH-...-2-BOT output

(on insulated metallic pipes according to 62395-1)



Switch-on temperature (°C)	Nominal cutout value (A)	Heating circuit length (m) for ELSR-SHH				
		15-2	30-2	45-2	60-2	75-2
10	10	76.0	52.0	38.0	24.0	14.0
	16	122.0	82.0	62.0	38.0	24.0
	20	154.0	102.0	76.0	46.0	28.0
	32	154.0	108.0	88.0	76.0	46.0
0	10	70.0	46.0	32.0	18.0	12.0
	16	112.0	74.0	52.0	30.0	18.0
	20	140.0	92.0	66.0	36.0	22.0
	32	146.0	104.0	84.0	58.0	36.0
-20	10	62.0	40.0	24.0	12.0	8.0
	16	98.5	66.0	38.0	20.0	12.0
	20	122.5	82.0	46.0	26.0	16.0
	32	138.5	98.0	76.0	42.0	24.0
-40	10	52.0	30.0	14.0	8.0	4.0
	16	82.0	50.0	24.0	12.0	8.0
	20	102.0	62.0	28.0	16.0	10.0
	32	126.0	88.0	46.0	24.0	14.0

Type	Nominal output	Dimensions approx. (mm)	Weight approx. (g/m)	Part No.
ELSR-SHH-15-2-BOT	15 W/m at 10 °C	12,1 x 5,4	146	B0HH1153
ELSR-SHH-30-2-BOT	30 W/m at 10 °C	12,1 x 5,4	146	B0HH1303
ELSR-SHH-45-2-BOT	45 W/m at 10 °C	12,1 x 5,4	146	B0HH1453
ELSR-SHH-60-2-BOT	60 W/m at 10 °C	12,1 x 5,4	146	B0HH1603
ELSR-SHH-75-2-BOT	75 W/m at 10 °C	12,1 x 5,4	146	B0HH1753

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