



**THORNE &
DERRICK**
INTERNATIONAL

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eltherm®



At a Glance

Applications



Freeze prevention



Temperature maintenance



Valves, pumps



Silos, vessels, tanks

- › Chemistry and Petrochemistry
- › Oil and Gas Industry
- › Power plants
- › Water and sanitation utilities

Benefits

- › Seven nominal outputs
- › Moisture proof
- › Resistant to chemicals
- › Use in hazardous areas

Design

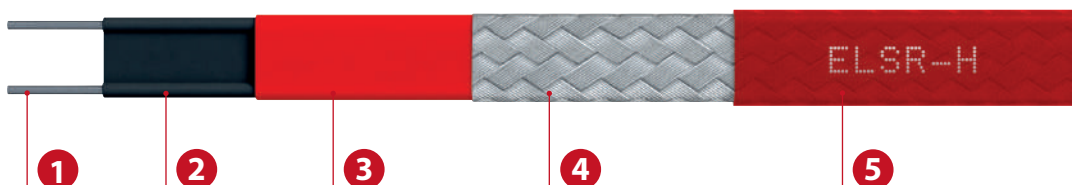
BOT Protective braid, Fluoropolymer outer jacket

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 60079-30-1 eb IIC T3 Gb
 - II 2D Ex 60079-30-1 tb IIIC T200°C Db
- › Certification
 - IECEx EPS 12.0004 U
 - IECEx EPS 19.0006 X
 - EPS 12 ATEX 1 429 U
 - EPS 19 ATEX 1013 X
 - CML 21 UKEX 3806 U
 - CML 21 UKEX 3905 X
- › Temperature class T3
- › * Use in Ex areas is permitted up to 180 °C

ELSR-H up to 210°C*



1 Bus wire	Nickel plated copper, 1.23 mm ²
2 Self-regulating heating element	
3 Insulation	Fluoropolymer
4 Protection	Protective braid (Cu, tin plated)
5 Outer jacket	Fluoropolymer

Checklist ELSR-H

Power Connection & End Termination

EL-ECSH-Ex	Silicone termination cap, red, glued, with ex marking	0X81EH2
Ex-Con-SR	Ex connection sleeve Ø 36 x 210 mm 4J	0X81125
ELVB-SREx-25	Power connection, glued, Gland M25 x 1,5, PE, Ex e	0X81PA1
ELVB-SREx-IT	Power connection, glued, without gland	091AIT1
ELVB-SRAH-Ex-20	Power connection, glued, Gland M20, brass	0X81PHD
ELVB-SRV-H	Connection set, shrink-fit	0911117
ELVB-SRAH-25	Power connection, glued, Gland M25 x 1,5, PE	091A040

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 Trace heaters, 1 Pt100, incl. mounting stand	0X80070



Technical Information

Max. continuous exposure temperature (power on)	120 °C
Max. intermittent exposure temperature (de-energized)	210 °C (max. 1000 h)
Nominal voltage*	230 V
Min. Bending radius	25 mm
Min. Installation temperature	- 60 °C

* Further power inputs on request

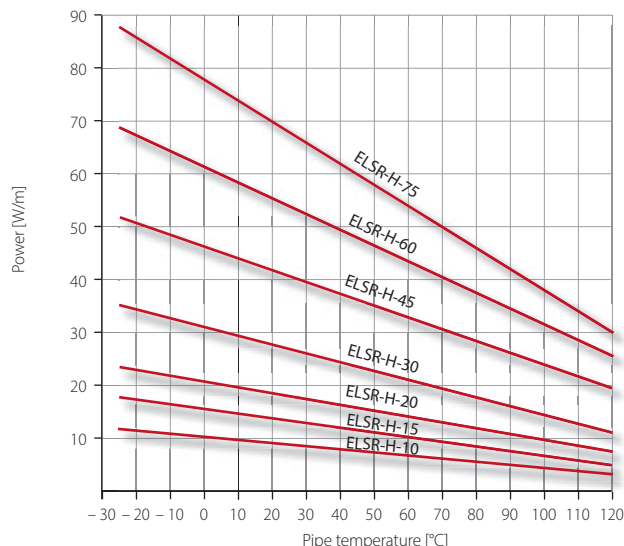
Heating circuit length

Switch on temperature [°C]	Nominal fuse rating [A]	Heating circuit length*1 [m]						
		ELSR-H-10-2-BOT	ELSR-H-15-2-BOT	ELSR-H-20-2-BOT	ELSR-H-30-2-BOT	ELSR-H-45-2-BOT	ELSR-H-60-2-BOT	ELSR-H-75-BOT
10	16	193.0	158.0	122.0	82.0	55.0	41.0	33.0
	20	193.0	158.0	136.0	102.0	68.0	51.0	41.0
	25	193.0	158.0	136.0	111.0	85.0	64.0	51.0
	32	193.0	158.0	136.0	111.0	91.0	79.0	66.0
0	16	189.0	153.0	116.0	77.0	52.0	39.0	30.0
	20	189.0	153.0	132.0	97.0	65.0	49.0	37.0
	25	189.0	153.0	132.0	108.0	81.0	61.0	47.0
	32	189.0	153.0	132.0	108.0	88.0	77.0	60.0
-10	16	184.0	146.0	110.0	73.0	50.0	37.0	28.0
	20	184.0	148.0	129.0	92.0	62.0	46.0	35.0
	25	184.0	148.0	129.0	105.0	77.0	58.0	44.0
	32	184.0	148.0	129.0	105.0	86.0	70.0	57.0
-20	16	180.0	139.0	104.0	70.0	47.0	36.0	26.0
	20	180.0	145.0	125.0	87.0	59.0	44.0	33.0
	25	180.0	145.0	125.0	103.0	74.0	56.0	41.0
	32	180.0	145.0	125.0	103.0	84.0	67.0	53.0
-40	16	173.0	126.0	95.0	64.0	43.0	33.0	23.0
	20	173.0	138.0	119.0	80.0	54.0	41.0	29.0
	25	173.0	138.0	120.0	98.0	68.0	51.0	36.0
	32	173.0	138.0	120.0	98.0	81.0	61.0	46.0

Power output

ELSR-H-xx-2-BOT Power

(on insulated metallic pipes in accordance with EN 62395-1)



*1 Heating circuit lengths on the following conditions

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

Ordering Information

Type	Nominal output [at 10°C]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-H-10-2-BOT	10 W/m	12.4 x 5.0	120	B0221103
ELSR-H-15-2-BOT	15 W/m	12.4 x 5.0	120	B0221153
ELSR-H-20-2-BOT	20 W/m	12.4 x 5.0	120	B0221203
ELSR-H-30-2-BOT	30 W/m	12.4 x 5.0	120	B0221303
ELSR-H-45-2-BOT	45 W/m	12.4 x 5.0	120	B0221453
ELSR-H-60-2-BOT	60 W/m	12.4 x 5.0	120	B0221603
ELSR-H-75-2-BOT	75 W/m	12.4 x 5.0	120	B0221753

