



At a Glance

Applications



Freeze prevention



Temperature maintenance



Pipelines



Silos, vessels, tanks

- › Chemistry and Petrochemistry
- › Water transport (pipeline) systems
- › Industrial process lines
- › Building construction
- › Food Processing Industry
- › Paper industry

Benefits

- › Single end power input
- › Can be cut to length
- › Constant power output per meter
- › High chemical resistance
- › UV resistance
- › flexible



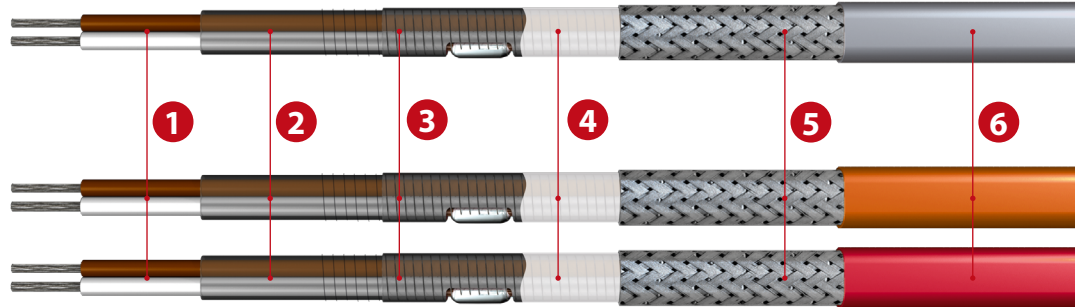
Approvals



- › Classification
 - Class I Div 1 Grp A,B,C,D T6...T2B
 - Class I Div 2 Grp A,B,C,D T6...T2B
 - Class II Div 1 Grp E, F T6...T3B
 - Class II Div 1 Grp G T6...T3
 - Class III Div 1 T6...T2B
 - Zone 1 AEx/Ex 60079-30-1 eb IIC T6...T2 Gb
 - Zone 21 AEx/Ex 60079-30-1 tb IIIC T85°C...T300°C Db
- › Certification
 - DEKRA 24CAUS 40-144991
- › Standards
 - CAN/CSA C22.2 No. 60079-30-1:2017
 - CSA C22.2 No. 130:2016
 - CSA C22.2 No. 60079-0:2019
 - UL 60079-0:2019
 - UL 60079-30-1:2017
 - IEC/IEEE 60079-30-1
- › Temperature class
 - T2 to T6 by specific design

ELP-PFA

up to 482 °F (250 °C)



| | |
|------------------------------|--|
| 1 Bus wire | Copper, nickel-plated, 1.5 mm ² |
| 2 1 st insulation | Fluoropolymer |
| 3 Heating conductor | Heating conductor alloy |
| 4 2 nd insulation | Fluoropolymer |
| 5 Protective braid | Copper, nickel-plated |
| 6 Outer jacket | Fluoropolymer |

Constant wattage resistance wire trace heaters

Eltherm's parallel constant wattage trace heaters offer superior flexibility and provide consistent power output for freeze protection and temperature maintenance of piping, vessel and equipment heating.

ELP trace heaters provide constant heating output independent from the chosen maintain temperature with virtually no in-rush current, reducing the requirement for oversized power distribution circuitry.

No separate connection (cold lead) is required and the input can be single sided. It is quick and easy to install, saving time and reducing overall assembly costs.

The ELP-PFA series trace heaters are available in a wide variety of outputs and various voltages for high power requirements in industrial process environments or low power applications requiring longer circuit lengths. High-grade fluoropolymer insulation and outer jacket materials offer highest chemical resistance and high temperature operation.

Checklist

Connection & end termination set

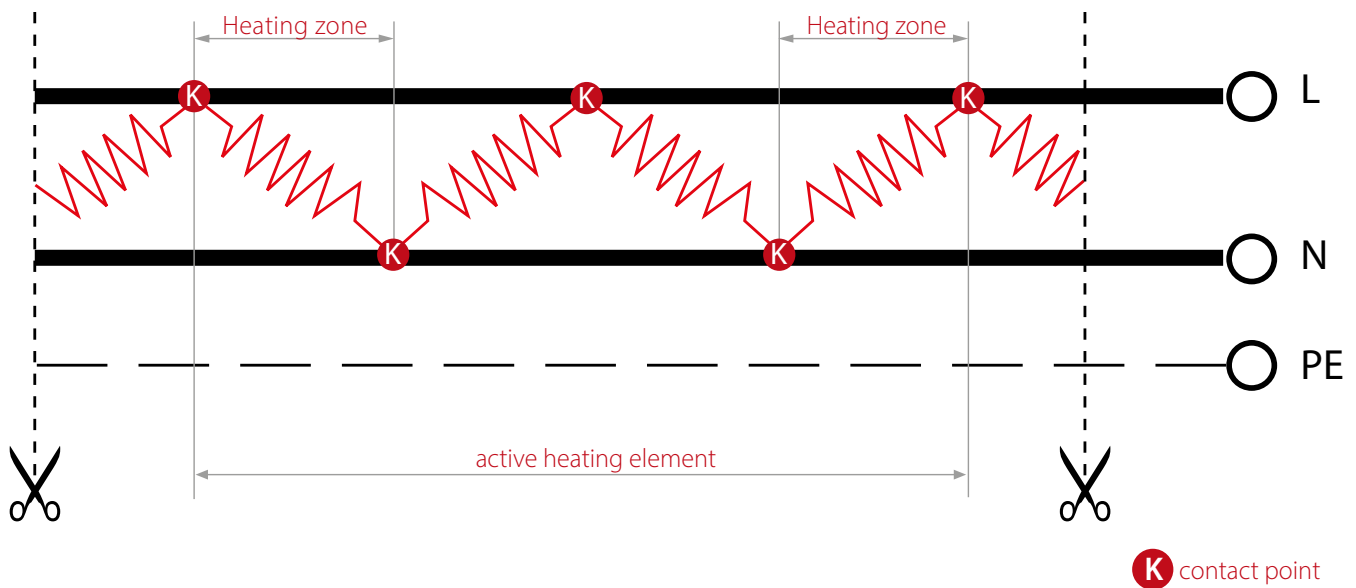
| | | |
|---------------------|---|---------|
| EL-ECP | Silicone Ex-termination cap, red; for ELP/PFA up to 250 °C | 09CA025 |
| ELVB-SRAP-3/4" ST | Power connection kit without cable gland for ELP/PFA for unclassified locations* | 09CA075 |
| ELVB-SRAPEX-20 BR | Power connection kit for ELP/PFA, nickel-plated brass cable gland, M20x1,5, for classified locations, Ex d e | 09CA073 |
| ELVB-SRAPEX-1/2" BR | Power connection kit for ELP/PFA, nickel-plated brass cable gland, 1/2" NPT, for classified locations, Ex d e | 09CA074 |
| EL-HAZELECT-ELP | Heater entry kit for Div1 rated junction box, 3/4" NPT, for ELP/PFA, Division 1 rated | 09CA054 |

*Approved for use with T & B 2237 (3/4" NPT) cable glands. Power Connection Kit with supplied cable gland available, please consult eltherm for part number.

Technical Information

| | |
|-------------------------------|---|
| Maximum exposure temperature | 482 °F (250 °C) |
| Maximum maintain temperature | 392 °F (200 °C) |
| Nominal voltage | 120 VAC / 208 VAC / 240 VAC / 277 VAC / 480 VAC / 600 VAC* |
| Max. Current | 40 A |
| Min. Bending radius | 1" (25 mm) |
| Ambient temperature range | -13 °F (-25 °C) to +104 °F (+40 °C) (Class I, Div 1 & 2, USA) -58 °F (-50 °C) to +104 °F (+40 °C) (Class I, Div 1 & 2, Canada) -76 °F (-60 °C) to +158 °F (+70 °C) (all other applications) |
| Min. installation temperature | -76 °F (-60 °C) |
| Min. start up temperature | -76 °F (-60 °C) |
| Cross section bus wire | 2 x AWG 16 (1.5 mm ²) |
| Usage Rating | Wet rated, for outdoor use (-WS) |

► * Please refer to the order information table below



ELP for use with multiple voltages

| Type | Power output @120 VAC | | Power output @208 VAC | | Power output @240 VAC | | Power output @277 VAC | | Item no. |
|--------------------|-----------------------|-------|-----------------------|-------|-----------------------|-------|-----------------------|-------|------------|
| | [W/ft] | [W/m] | [W/ft] | [W/m] | [W/ft] | [W/m] | [W/ft] | [W/m] | |
| ELP/PFA-6-120-BOT | 1.8 | 6 | - | - | 7.6 | 25 | 10 | 33 | BA33206120 |
| ELP/PFA-10-120-BOT | 3 | 10 | 9.1 | 30 | - | - | - | - | BA33210120 |
| ELP/PFA-10-240-BOT | - | - | - | - | 3 | 10 | 4 | 13 | BA33210240 |
| ELP/PFA-15-240-BOT | - | - | - | - | 4.6 | 15 | 6.1 | 20 | BA33215240 |
| ELP/PFA-20-240-BOT | - | - | - | - | 6.1 | 20 | 8.2 | 27 | BA33220240 |
| ELP/PFA-30-240-BOT | - | - | - | - | 9.1 | 30 | 12.2 | 40 | BA33230240 |



Order Information

120 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-6-120-BOT | 1.8 | 6 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 334 | 102 | Orange | BA33206120 |
| ELP/PFA-10-120-BOT | 3 | 10 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 259 | 79 | Orange | BA33210120 |
| ELP/PFA-15-120-BOT | 4.6 | 15 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 210 | 64 | Orange | BA33215120 |
| ELP/PFA-20-120-BOT | 6.1 | 20 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 180 | 55 | Orange | BA33220120 |
| ELP/PFA-25-120-BOT | 7.6 | 25 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 164 | 50 | Orange | BA33225120 |
| ELP/PFA-30-120-BOT | 9.1 | 30 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 147 | 45 | Orange | BA33230120 |

208 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-10-208-BOT | 3 | 10 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 452 | 138 | Grey | BA33210208 |
| ELP/PFA-30-208-BOT | 9.1 | 30 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 259 | 79 | Orange | BA33210120 |

240 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-10-240-BOT | 3 | 10 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 521 | 159 | Grey | BA33210240 |
| ELP/PFA-15-240-BOT | 4.6 | 15 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 423 | 129 | Grey | BA33215240 |
| ELP/PFA-20-240-BOT | 6.1 | 20 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 365 | 111 | Grey | BA33220240 |
| ELP/PFA-25-240-BOT | 7.6 | 25 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 334 | 102 | Orange | BA33206120 |
| ELP/PFA-30-240-BOT | 9.1 | 30 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 301 | 92 | Grey | BA33230240 |

277 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-10-240-BOT | 4 | 13 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 521 | 159 | Grey | BA33210240 |
| ELP/PFA-15-240-BOT | 6.1 | 20 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 423 | 129 | Grey | BA33215240 |
| ELP/PFA-20-240-BOT | 8.2 | 27 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 365 | 111 | Grey | BA33220240 |
| ELP/PFA-25-240-BOT | 10 | 33 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 334 | 102 | Orange | BA33206120 |
| ELP/PFA-30-240-BOT | 12.2 | 40 | 3.28 | 1.0 | 0.34 x 0.26 | 8.6 x 6.7 | 301 | 92 | Grey | BA33230240 |

480 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-40-480-BOT | 12.2 | 40 | 6.56 | 2.0 | 0.34 x 0.26 | 8.6 x 6.7 | 521 | 159 | Red | BA33240480 |

600 VAC Nominal Voltage

| Type | Power | | Contact spacing | | WxH approx. | | Heating circuit length | | Color Outershield | Item no. |
|--------------------|--------|-------|-----------------|-----|-------------|-----------|------------------------|-----|-------------------|------------|
| | [W/ft] | [W/m] | [ft] | [m] | ["] | [mm] | [ft] | [m] | | |
| ELP/PFA-15-600-BOT | 4.6 | 15 | 8.20 | 2.5 | 0.34 x 0.26 | 8.6 x 6.7 | 1230 | 375 | Red | BA33215600 |
| ELP/PFA-20-600-BOT | 6.1 | 20 | 8.20 | 2.5 | 0.34 x 0.26 | 8.6 x 6.7 | 944 | 288 | Red | BA33220600 |

➤ Heating circuit lengths ELP/PFA on the following conditions:

- 90% power at the end of the trace heater
- nominal resistance at 68 °F (20°C)
- Power connection to one (1) heater end

- Provide protection by means of RCD 30 mA.

➤ Cables shall neither intersect nor contact.

- Please observe the local codes and regulations as well as the standards: IEC 60079-30-2, IEEE 515, CSA 22.2 130
- Greater lengths are possible with higher rated circuit breakers, please contact eltherm or use the calculation tool „eltherm designer“, which can be downloaded from our [website](http://www.eltherm.com).