

Specification of Self Limiting and Self-Regulating Electrical Resistance Trace Heating Cable and its accessories:

BOQ of Heat tracer & its accessories:

Sl. No	Description of Item	Unit	Quantity
1.	SLSR Heat Tracing Tape with over-jacket	meter	1800
2.	Junction Box with 3 Heat Tracer gland (IP 66 compliant)	Nos.	100
3.	Silicon end Seal cap with sealant	Nos.	200
4.	1/2" Double Compression Tracer Glands suitable for above mentioned junction box	Nos.	500
5.	Lugs for Heat Tracer Termination	Nos.	500

Technical Specification of Heat Tracer:

1. Type: The heat tracer shall be Self Limiting and Self-Regulating type [SLSR] having positive temperature co-efficient [PTC] characteristic, with the following specifications.

2. Specifications:

SI No.	Description	Value
1.	Max maintenance temperature	Approx. 120 °C
2.	Required power output	At 10°C ≥60 Watt/meter
3.	Self-Regulating index (SRI – A measure of tracer’s ability to adjust its heat output in response to changes in pipeline and ambient temperature)	not less than 0.2 W/m °C within the operating temperature range.
4.	Service voltage	230V A/C±10%, single phase 50 ±3%, Hz

3. Construction:

- Shall have parallel circuit configuration in order to facilitate modification at site.
- Shall have monolithic core construction with the bus wires separated by matrix to ensure short circuit free operation. The tracer shall have two parallel 14 AWG nickel-plated copper bus conductors with a semiconductive PTC (Positive Temperature Coefficient) polymer extruded over and between these parallel conductors with a high-quality fluoropolymer dielectric insulating jacket extruded over the heating element core.

- The semi-conductive heating matrix and primary insulating jacket shall be cross-linked by irradiation.
- Shall have a tinned plated copper braiding.
- Shall be covered with a corrosion resistant over-jacket of thermoplastic elastomer for protection from possible exposure to aqueous solutions, mild acids or bases.
- Construction shall be such as to permit easy and quick replacement of damaged portions, if required.
- For easy installation and efficient heat transfer, the Heat tracer shall be flat and flexible enough to allow wrapping over 1" NB pipe.

4. Features:

- Heat tracer shall have cut-to-length feature (without change in its power output per unit length) to facilitate laying over pipelines & equipment of different lengths at site.
- Have uniform heat output per unit length.
- Built-in burn-out proof feature and feature to avoid over-temperature rise which may be caused due to overlapping of the tracer.

5. Standards & Certifications:

- Heat tracer shall have unconditional T3 rating. This shall be supported by certification from statutory authorities.
- Shall comply with IEEE:515-2017 and shall have passed service life performance bench mark test. Test report should be submitted.
- Long term stability shall be established by the thermal performance benchmark test per IEEE 515 Std or IEC/IEEE 60079-30-1:2015. This shall be supported by test report.

6. The following tests shall be performed at manufacture's premises as per IEEE 515 Std or IEC/IEEE 60079-30-1:2015 during inspection for acceptance:

Type test

- Electrical
- Dielectric
- Insulation resistance

Mechanical

- Impact
- Deformation
- Cold Bend

Environmental Exposure Test

- Water-resistance
- Flammability

Routine test

- Verification of rated output
- Dielectric test

7. Guarantee: The product shall be guaranteed for minimum period of 1 year from the date of supply.

General Terms and Conditions

1. The Party shall send all relevant catalogues and details of their offered product.
2. The party shall provide details of similar supply to other units of DAE, reputed units in the recent past.
3. The material shall be inspected at party's works and material shall be dispatched only after our approval.
4. Order will be placed on Technically suitable overall Lowest offer (Overall L1).
5. The party shall provide the product catalog indicating the model being offered and its technical specification at the time of quoting.