TESH™
Series Constant Watt Heating Cable

Product Specifications

Application . . .

Long Line Temperature Maintenance or Freeze Protection
TESH series resistance constant Watt heating cables are used where circuit lengths exceed the limitations of parallel resistance heating cables. TESH withstands the temperature exposures associated with steam purging.

The series circuitry of TESH provides consistent Watt-per-metre power output along the entire length of the cable with no voltage drop. A glassceramic tape layer adds additional protection to the heating cable and a fluoropolymer overjacket provides chemical resistance while maintaining maximum flexibility. The construction of the cable meets the 7 Joule impact test per EN50019.

TESH cables are approved for use in ordinary (nonclassified) areas and Catagories 2 and 3 ATEX classified areas.

Ratings . . .

Maximum Watt density ..... 25 W/m
Maximum supply voltage ..... 750 Vac
Maximum continuous exposure temperature
Power-off ..... 260°C
Minimum installation temperature ..... -60°C
Minimum bend radius ..... 5 x cable O.D.
T-rating[1] ..... T2 to T6
(using the principles of stabilized design or limiters)[2]

Stabilised Design . . .

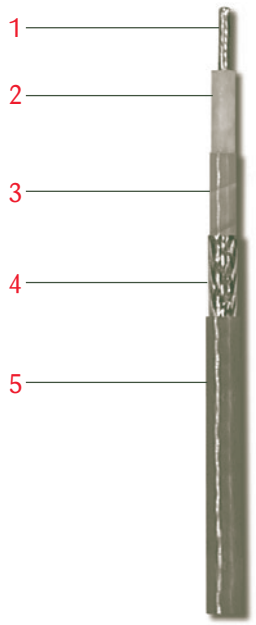
The Watt density limitation for TESH cables is directly related to the desired maintain temperature. Thermon is able to ensure the T-rating based on a stabilised design that enables series constant Watt heating cables to operate in hazardous areas without limiting thermostats. TESH cable output and T-rating are dependent upon supply voltage, cable resistance, temperature conditions as well as additional variables. Contact Thermon for design assistance.

Basic Accessories[3] . . .

Power Connection: TESH cables typically require nonheating terminations at each end of the circuit before connecting to power. Contact Thermon for complete information.

Notes . . .

1. T-rating per internationally recognised testing agency guidelines.
2. Thermon heating cables are approved for the listed T-ratings using the stabilised design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact Thermon for design assistance.



Construction . . .

1 Heating Conductor
2 Fluoropolymer Dielectric Insulation
3 Glassceramic Tape
4 Nickel-Plated Copper Braid (BN)
5 Fluoropolymer Overjacket

Certification/Approval . . .

CENELEC **European Organisation for Electrotechnical Standardisation**
Hazardous (Classified) Locations

CE Ex II 2 G/D EEx e IIC T2 to T6 LCIE 00 ATEX 6014 X

TESH has additional hazardous area approvals including:

• GGTN • Kazakhstan

Product Features . . .

- Withstands continuous flamibility testing according to IEC 60332-1: 1993
- Allows cable to be installed at temperatures to -60°C

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ISO 9001 REGISTERED

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Available Cables . . .

Product Type	Resistance Ohm/m at 20°C	Conductor Size mm^2	Max. Cable Length[1] m (with 30 mA earth-fault protection)	Cable Diameter mm
TESH 2.9	0.0029	6.00	1435	7.0
TESH 4.4	0.0044	4.00	1525	6.3
TESH 7	0.0072	2.50	185	5.5
TESH 10	0.010	1.79	1775	5.1
TESH 11.7	0.0117	1.50	2025	4.9
TESH 15	0.015	1.20	2090	4.7
TESH 17.8	0.0178	1.00	2275	4.6
TESH 25	0.025	1.11	2525	4.6
TESH 31.5	0.0315	1.60	2400	4.9
TESH 50	0.050	1.02	2335	4.7
TESH 65	0.065	0.75	1890	4.4
TESH 80	0.080	1.21	2190	4.3
TESH 100	0.100	1.50	2025	4.9
TESH 150	0.150	1.02	2335	4.6
TESH 200	0.200	0.75	2605	4.4
TESH 320	0.320	0.92	2420	4.5
TESH 380	0.380	0.79	2555	4.4
TESH 480	0.480	0.64	2765	4.3
TESH 600	0.600	0.49	3010	4.2
TESH 700	0.700	0.43	3155	4.1
TESH 810	0.810	0.62	2780	4.3
TESH 1000	1.000	0.49	3010	4.2
TESH 1440	1.440	0.34	3395	4.1
TESH 1750	1.750	0.29	3615	4.1
TESH 2000	2.000	0.55	2900	4.2
TESH 3000	3.000	0.34	3395	4.1
TESH 8000	8.000	0.14	4455	3.8

Note . . .

1. Longer circuit lengths are possible based on earth-fault protection with higher earth-fault ratings; contact Thermon.

Circuit Breaker Sizing and Type . . .

Maximum circuit lengths for TESH heating cables will be a function of cable resistance, circuit length and operating voltage. Circuit length, breaker sizing and earth-fault protection should be based on applicable local codes.

Earth-fault protection of equipment should be provided for each branch circuit supplying electric heating equipment.

