

RSX™ 15-2 Self-Regulating Heating Cable

Product Specifications

Application . . .

Freeze Protection or Process Temperature Maintenance

RSX 15-2 self-regulating heating cable is designed for applications where the Watt density requirements preclude the use of the standard range of winterization cables. The cable is ideally suited for freeze protection or process temperature maintenance applications that have higher heat losses but are not exposed to high temperatures (such as steam cleaning).

The heat output of RSX 15-2 cable varies in response to the surrounding conditions along the entire length of a circuit. Whenever the heat loss of the insulated pipe, tank or equipment increases (as ambient temperature drops), the heat output of the cable increases. Conversely, when the heat loss decreases (as the ambient temperature rises or product flows), the cable reacts by reducing its heat output. This self-regulating feature allows RSX 15-2 to be overlapped without temperature upset damage to the cable.

RSX 15-2 is approved for use in ordinary (nonclassified) areas and are certified to the ATEX directive for use in Category 2 and 3 (Zone 1 and 2) classified areas.

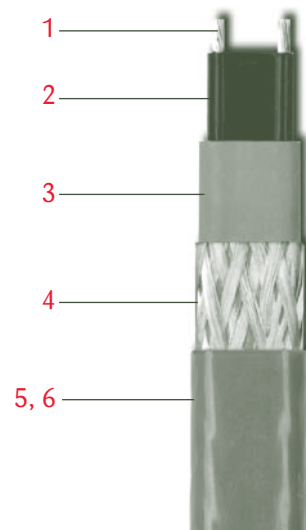
Ratings . . .

Nominal Watt density	48 W/m at 10°C
Nominal supply voltage ¹	230 Vac
Maximum maintenance temperature	65°C
Maximum continuous exposure temperature	
Power-off	85°C
Minimum installation temperature	
RSX with OJ	-50°C
RSX with FOJ Option	-60°C
Minimum bend radius	
@ -15°C	10 mm
@ -50°C for OJ and @ -60°C for FOJ	32 mm
T-rating ²	
RSX with OJ, based on stabilized design	T4-T5
RSX with FOJ Option	T5

Basic Accessories³ . . .

Power Connection: All RSX 15-2 cables require a TBX-3LC power boot for terminating the circuit before connecting to power.⁴

End-of-Circuit Termination: All RSX 15-2 cables require the use of the ET-6C end cap and ET-60 overcap for terminating at the end of the circuit.



Construction . . .

- 1 Nickel-Plated Copper Bus Wires (2.1 mm²)
- 2 Radiation Cross-Linked Semiconductive Heating Matrix
- 3 Radiation Cross-Linked Dielectric Insulation
- 4 Tinned Copper Braid
- 5 Polyolefin overjacket provides additional protection where exposure to aqueous inorganic chemicals is expected.

Options . . .

- 6 FOJ Fluoropolymer overjacket provides additional protection where exposure to organic chemicals or corrosives is expected.

Product Features . . .

- Withstands continuous flammability testing according to IEC 60332-1: 1993
- Allows cable to be installed at temperatures to -50°C with OJ, and -60°C with FOJ option.
- Termination for system tested for ozone stability, UV stability and flammability testing according to ISO/IEC requirements

Notes . . .

1. Cable may be energised at other voltages up to 277 Vac; contact Thermon for design assistance.
2. T-rating per internationally recognised testing agency guidelines. T-rating for OJ option based on stabilized design
3. Information on additional accessories to complete a heater circuit installation and to comply with approval requirements can be found in the "Self-Regulating Cables Systems Accessories" product specification sheet (Form TEP0010U).
4. For ATEX and IECEx certifications, the use of the Terminator Z series and/or the JB-K-EX/JB-0-EX junction box with XP Plus Expediter and PETK-1 and/or SCTK-1 kits are required.



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RSX™ 15-2

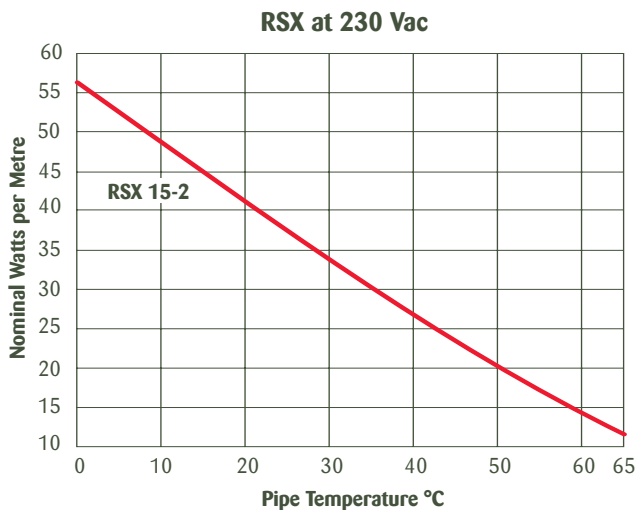
Self-Regulating Heating Cable

Product Specifications

Power Output Curves . . .

The power outputs shown apply to overjacketed cable installed on insulated metallic pipe at the service voltage stated below.

Product Type 230 Vac Nominal	Power Output at 10°C W/m
RSX 15-2	48



Certifications/Approvals . . .



European Organisation for Electrotechnical Standardisation
Hazardous (Classified) Locations



II 2 G Ex e II T4 to T5 KEMA 07ATEX0179

IEC Ex

International Electrotechnical Commission
IEC Certification Scheme for Explosive Atmospheres
KEM 07.0052



Factory Mutual Research
Hazardous (Classified) Locations



Underwriters Laboratories Inc.
Hazardous (Classified) Locations

RSX 15-2 has additional hazardous area approvals including:

- DNV • Lloyd's • JIS • CCE/CMRS • GGTN

Contact Thermon for additional approvals and specific information.

ATEX Certification is to

EN 60079-0: 2004 and EN 60079-30-1: 2007

IECEx certification is to

IEC 60079-0: 2004 and IEC 60079-30-1: 2007

Circuit Breaker Sizing and Type¹ . . .

Maximum circuit lengths for various circuit breaker amperages are shown below. Circuit breaker sizing and earth-fault protection should be based on applicable local codes. For information on design and performance on other voltages, contact Thermon.

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

Type B Circuit Breakers

Product Type	230 Vac Service Voltage Start-Up Temperature ² °C	Max. Circuit Length ³ vs. Breaker Size Metres			
		16 A	25 A	32 A	40 A
RSX 15-2	10	37	59	78	100
	0	33	52	68	88
	-20	26	41	54	69
	-40	21	34	44	56

Type C Circuit Breakers

Product Type	230 Vac Service Voltage Start-Up Temperature ² °C	Max. Circuit Length ³ vs. Breaker Size Metres			
		16 A	25 A	32 A	40 A
RSX 15-2	10	58	96	112	112
	0	51	84	112	112
	-20	41	66	88	112
	-40	34	54	72	94

Note . . .

1. Maximum circuit lengths shown are based on an instantaneous trip current characteristic per IEC 60898 at the referenced start-up temperature and a 10°C maintenance temperature. For maximum circuit lengths with other trip current characteristics contact Thermon.
2. While a heat tracing system is generally designed to keep the contents of a pipe at the desired maintain temperature, the cable may be energized at lower temperatures. For design data with lower start-up temperatures than represented above contact Thermon for design assistance.
3. The maximum circuit length is for one continuous length of cable, not the sum of segments of cable. Refer to CompuTrace® design software or contact Thermon for current loading of segments.

