

CONNECT AND PROTECT

DON'T BE FOOLED BY IMITATIONS

Insist on the Original Self-Regulating Heat Tracing



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nVent at a Glance

GLOBAL FACTS

- Resources: 2,500+ employees
- Presence: 40 locations (including 6 manufacturing facilities & 6 engineering centers)
- Headquarters: Houston, TX

A PORTFOLIO OF TRUSTED BRANDS

Raychem **TRACER**

COMPRISED OF (4) PRODUCT/SERVICE CATEGORIES

- Industrial Heat Management Products
- nVent
- Engineered & Specialty Technologies
- Turnkey Solutions

**PROVIDING A COMPLETE RANGE OF TURNKEY SOLUTIONS ACROSS
OUR PRODUCT PORTFOLIO FOR END CUSTOMER LIFE CYCLE SUPPORT**

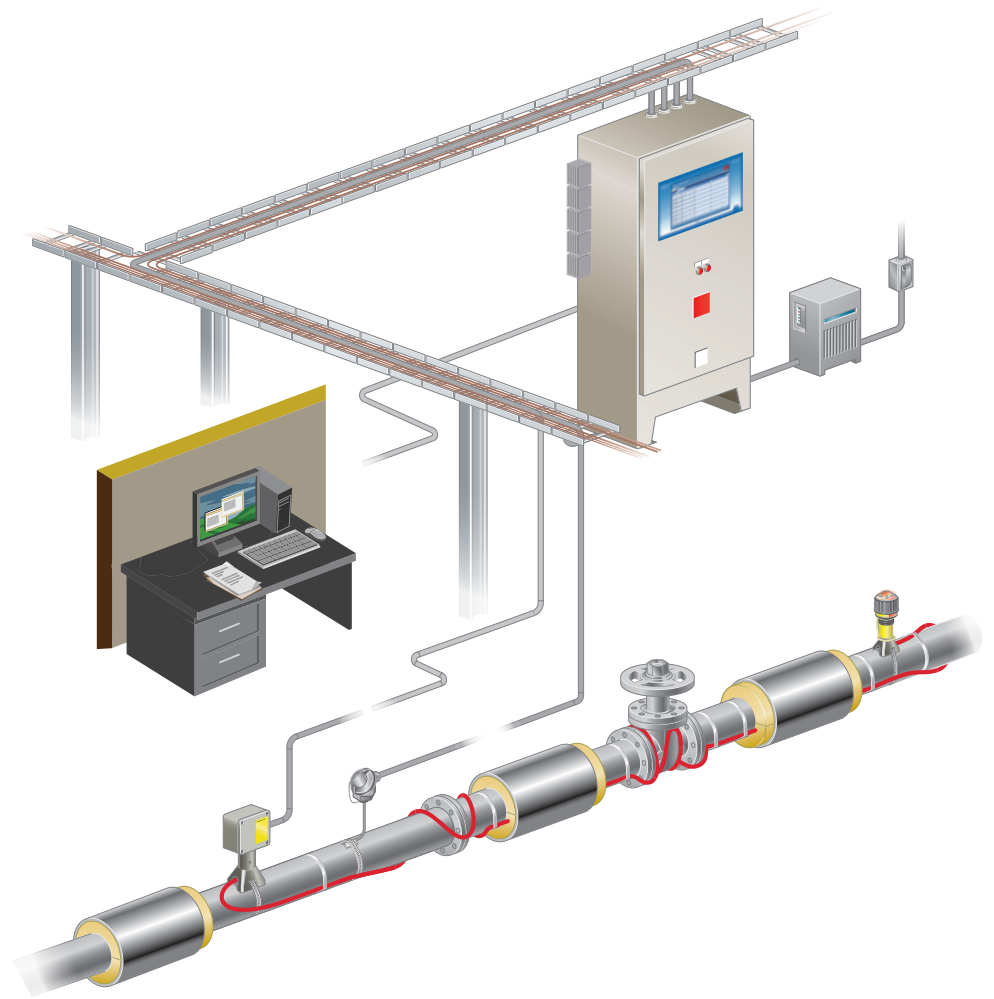


Electric Heat-Tracing Systems

A complete electrical heat-tracing system is much more than just the heating cable.

nVent can provide a complete system from electrical transformer and heat trace panel to thermostat, power connection, end termination, glass tape and warning labels.

We can supply the individual components, provide engineering and design and even install and maintain the entire system.

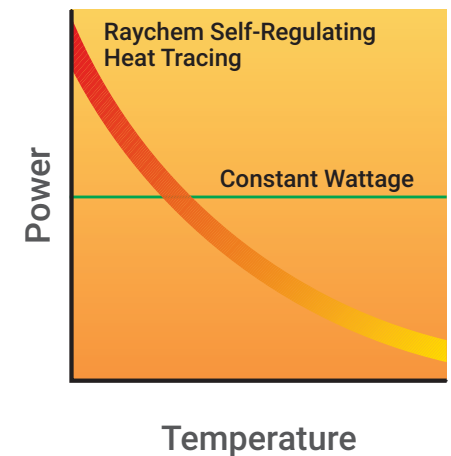
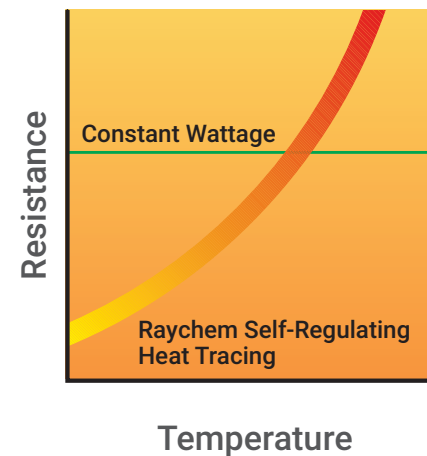
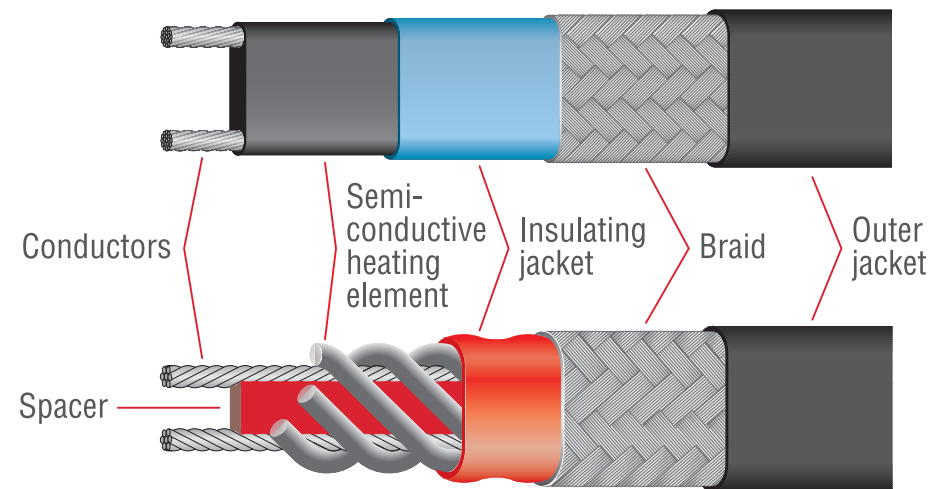


Self-Regulating Technology

Self-regulating technology was used in designing the two types of self-regulating cables illustrated at right. Utilizing a semi-conductive heating element in contact with two parallel bus wires, self-regulating cables adjust their heat output based on their ambient temperature, providing a convenient solution for many applications.

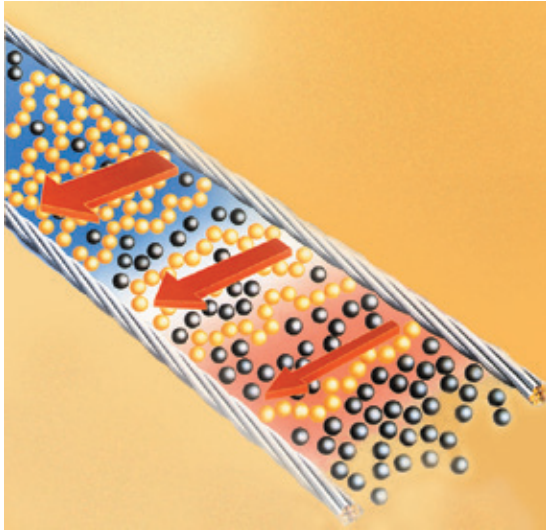
nVent RAYCHEM self-regulating cables:

- Are approved for use in hazardous and non-hazardous areas
- Offer high reliability — 10 Year Extended Product Warranty*



*Reference documents H57396 & H57397 for the warranty terms and conditions

Insist on the Original Self-Regulating Heat Tracing



Other heat-tracing products may look like ours but don't be fooled. Rely on **RAYCHEM** self-regulating heat-tracing systems for your pipelines and industrial processes for these 5 reasons.

- 1 Even Heat Distribution**
 - Uniform carbon dispersion
- 2 No Cold Spots! No Hot Spots! No Burnouts!**
 - Good contact between bus wires and heating cable core
- 3 Efficient Heat Transfer**
 - Tight insulating jacket
- 4 Most Advanced Connection Kits**
 - Engineered Design, Simplified Installation
- 5 Quality Guaranteed**
 - More experience, 10 Year Extended Warranty*, process oriented

*Reference documents H57396 & H57397 for the warranty terms and conditions

1 Even Heat Distribution

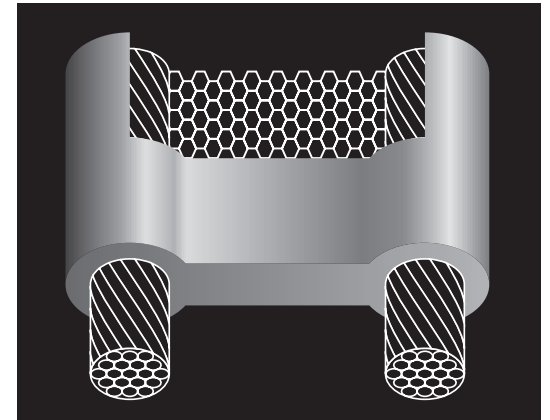
The even dispersion of conductive particles in the core of all **RAYCHEM** brand self-regulating heating cables means uniform heat distribution internally and along the entire length of the heating cable.

This uniform distribution of carbon particles prevents localized internal overheating and maximizes the life of the cable.

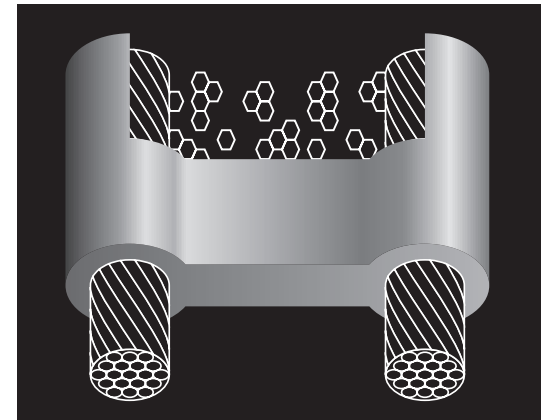


Poor particle dispersion is one cause of premature cable failure.

Good dispersion



Poor dispersion



2 No Cold Spots! No Hot Spots! No Burnouts!

Good contact



All **RAYCHEM** brand self-regulating heating cables have good contact between the conductive core and the parallel bus wires eliminating localized hot or cold spots and premature cable failure. This prevents under heating or overheating and increases reliability.

Poor contact



Poor particle dispersion is one cause of premature cable failure.

3 Efficient Heat Transfer

The tight fit of the insulating jacket on all **RAYCHEM** self-regulating heating cables maximizes the transfer of heat from cable to pipe, saving energy while eliminating premature aging of the cable.



Loose insulating jackets can cause poor heat transfer from cable to pipe.

Tight jacket



Loose jacket



4 Most Advanced Connection Kits

RAYCHEM connection kits are rugged, resist corrosion, take less time to install, have fewer parts and permit visible monitoring status of power and continuity. They are quick and easy to install.

- Designed by installers
- High Profile with 4" clearance for insulation
- One kit fits all cables
- Robust cage clamp terminals
 - Cold applied system
 - No heat source required!
 - No hot work permit required!
 - No RTV = No curing time!
- Integral LED indication and electronic control options



5 Quality Guaranteed

- **More Manufacturing Experience**

Quality-driven manufacturing processes, combined with years of manufacturing experience allows **nVent** to provide the most reliable products.

- **Extended Product Warranty**

All **RAYCHEM** self-regulating heating cable systems are reliable, made to last, and backed by a 10 Year Extended Product Warranty*.

- **Process Oriented**

nVent implements and maintains customer-focused and data driven programs to ensure the quality and delivery of our products and services.

- Six Sigma
- ISO 9001
- On Time Delivery



*Reference documents H57396 & H57397 for the warranty terms and conditions



Connection Kit
Comparisons

Power Connection Kits

Product feature	Competitive assessment	RAYCHEM JBS-100-A	Thermon DP-L
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	RSX, TSX, VSX (BSX, HTSX require DP-S)
Hazardous Location Approvals	Y/N	Y	Y
Enclosure Material		Polyglas	PPS
Stand Material		PPS	PPS
Product Dimensions			
Stand height	in.	4.5	4.7
Insulation penetration	Dia (in.)	1.7	2.3
Footprint on pipe	in.	1.9 X 2.4	2.5 x 3.5
Enclosure volume	in. ³	49	84
Enclosure open	in.	4 X 4	4 x 4
Electrical Connection	Type	Terms	Terms
Terminal Connection	Type	Screw & Spring	Screw
Maximum Conductor Size	AWG	8	8
Maximum Current Rating	Amps	50	50
Maximum Voltage Rating	Vac	277 ⁽²⁾	600
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	250 (482)
Minimum Installation Temperature	°C (°F)	-40 (-40)	-60 (-76)
Maximum Installation Temperature	°C (°F)	40 (104)	55 (131)
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X/IP66
Number of Individual Parts	Parts	7	10
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	Y - Drill
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	17	19
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	RTV
Includes Materials w/Limited Shelf Life	If yes, type	N	RTV
Quality of Installation Documentation	Good/Poor	Good	Good

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable

**RAYCHEM
JBS-100-A**

VS

**Thermon
DP-L**

Raychem



JBS-100-A



DP-L



Power Connection Kits

Product feature	Competitive assessment	RAYCHEM JBS-100-A	Chromalox RTPC
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	SRL, SRM/E, CWM
Hazardous Location Approvals	Y/N	Y	Y
Enclosure Material		Polyglas	PPS
Stand Material		PPS	PPS
Product Dimensions			
Stand height	in.	4.5	1.5
Insulation penetration	Dia (in.)	1.7	5 x 3.5
Footprint on pipe	in.	1.9 X 2.4	1.5 x 2.8
Enclosure volume	in. ³	49	44
Enclosure open	in.	4 X 4	3 x 5
Electrical Connection	Type	Terms	Terms
Terminal Connection	Type	Screw & Spring	Screw
Maximum Conductor Size	AWG	8	N/A
Maximum Current Rating	Amps	50	50
Maximum Voltage Rating	Vac	277 ⁽²⁾	277
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	215 (419)
Minimum Installation Temperature	°C (°F)	-40 (-40)	-40 (-40)
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X
Number of Individual Parts	Parts	7	16
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	17	11
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	N
Includes Materials w/Limited Shelf Life	If yes, type	N	N
Quality of Installation Documentation	Good/Poor	Good	Poor

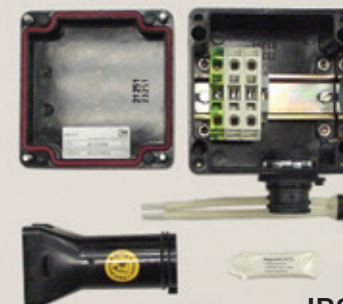
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**RAYCHEM
JBS-100-A**

VS

**Chromalox
RTPC**

Raychem



JBS-100-A

Chromalox
PRECISION HEAT AND CONTROL



RTPC

Power Connection Kits

Product feature	Competitive assessment	RAYCHEM JBS-100-A	NELSON PLT-BC
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	LT, CLT, HLT
Hazardous Location Approvals	Y/N	Y	N
Enclosure Material		Polyglas	N/A ⁽¹⁾
Stand Material		PPS	N/A ⁽¹⁾
Product Dimensions			
Stand height	in.	4.5	4.5
Insulation penetration	Dia (in.)	1.7	1.3
Footprint on pipe	in.	1.9 X 2.4	1 x 3.3
Enclosure volume	in. ³	49	42
Enclosure open	in.	4 X 4	5 x 5
Electrical Connection	Type	Terms	Terms ⁽³⁾
Terminal Connection	Type	Screw & Spring	Screw
Maximum Conductor Size	AWG	8	8
Maximum Current Rating	Amps	50	50
Maximum Voltage Rating	Vac	277 ⁽²⁾	600
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	121 (250) ⁽⁴⁾
Minimum Installation Temperature	°C (°F)	-40 (-40)	-40 (-40)
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X/IP66
Number of Individual Parts	Parts	7	19
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	17	18
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	RTV
Includes Materials w/Limited Shelf Life	If yes, type	N	RTV
Quality of Installation Documentation	Good/Poor	Good	Poor

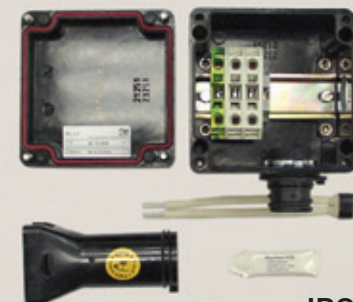
1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable

**RAYCHEM
JBS-100-A**

VS

**Nelson
PLT-BC**

Raychem



JBS-100-A

**NELSON
HEAT TRACE**



PLT-BC

Power Connection Kits

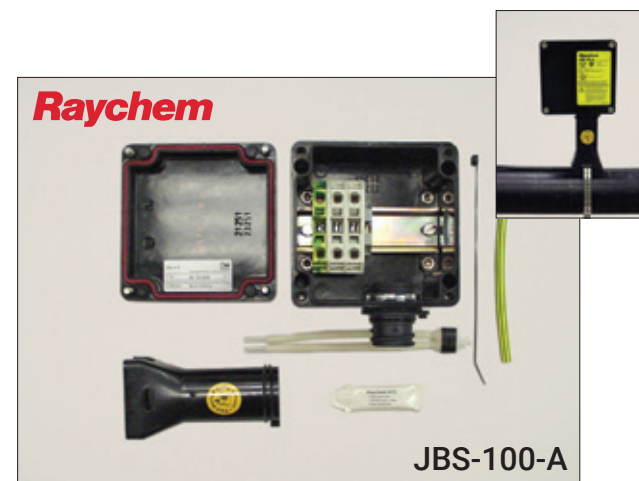
Product feature	Competitive assessment	RAYCHEM JBS-100-A	RSSC 1548-81HTJ
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	Series 2000, 2300, 2700, 2800, Therma-Linx
Hazardous Location Approvals	Y/N	Y	N
Enclosure Material		Polyglas	N/A
Stand Material		PPS	N/A ⁽¹⁾
Product Dimensions			
Stand height	in.	4.5	3.6
Insulation penetration	Dia (in.)	1.7	1.5
Footprint on pipe	in.	1.9 X 2.4	2.5 x 2
Enclosure volume	in. ³	49	N/A
Enclosure open	in.	4 X 4	N/A
Electrical Connection	Type	Terms	N/A
Terminal Connection	Type	Screw & Spring	N/A
Maximum Conductor Size	AWG	8	8
Maximum Current Rating	Amps	50	50
Maximum Voltage Rating	Vac	277 ⁽²⁾	277 ⁽⁴⁾
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	N/A
Minimum Installation Temperature	°C (°F)	-40 (-40)	N/A
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	N/A
Number of Individual Parts	Parts	7	14
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	Y
Number of Installation Steps	Steps	17	18
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	N
Includes Materials w/Limited Shelf Life	If yes, type	N	N
Quality of Installation Documentation	Good/Poor	Good	Good

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable

RAYCHEM
JBS-100-A

VS

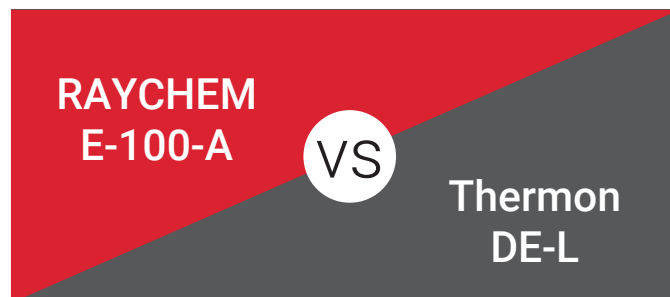
RSSC Heat
Trace Products Ltd.
1548-81HTJ



End Connection Kits

Product feature	Competitive assessment	RAYCHEM E-100-A	Thermon DE-L
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	RSX, TSX, VSX (BSX, HTSX require DE-S)
Hazardous Location Approvals	Y/N	Y	Y
Enclosure Material		Polyglas	PPS
Stand Material		PPS	PPS
Product Dimensions			
Stand height	in.	4.5	4.7
Insulation penetration	Dia (in.)	1.7	2.3
Footprint on pipe	in.	1.9 x 2.4	2.5 x 3.5
Enclosure volume	in. ³	1.8	6.1
Enclosure open	in.	na	na
Electrical Connection	Type	na	na
Terminal Connection	Type	na	na
Maximum Conductor Size	AWG	(4)	(4)
Maximum Current Rating	Amps	(4)	(4)
Maximum Voltage Rating	Vac	(4)	(4)
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	250 (482)
Minimum Installation Temperature	°C (°F)	−40 (−40)	−60 (−76)
Maximum Installation Temperature	°C (°F)	40 (104)	55 (131)
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X/Ip66
Number of Individual Parts	Parts	5	6
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	10	11
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	RTV
Includes Materials w/Limited Shelf Life	If yes, type	N	RTV
Quality of Installation Documentation	Good/Poor	Good	Good

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable



End Connection Kits

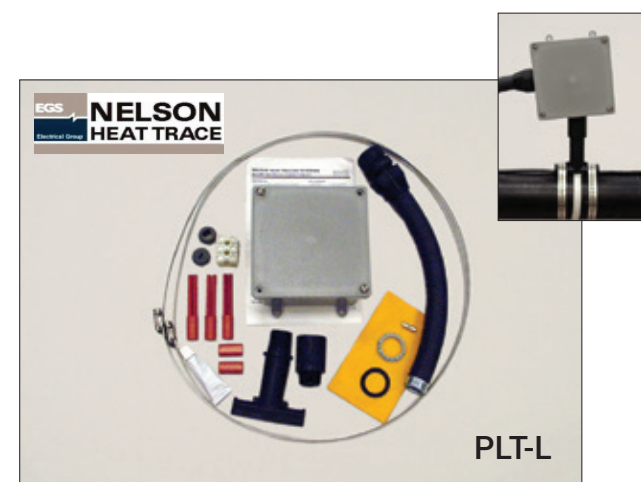
Product feature	Competitive assessment	RAYCHEM E-100-A	Nelson PLT-L
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	LT, CLT, HLT
Hazardous Location Approvals	Y/N	Y	N
Enclosure Material		Polyglas	N/A ⁽¹⁾
Stand Material		PPS	N/A ⁽¹⁾
Product Dimensions			
Stand height	in.	4.5	4.8
Insulation penetration	Dia (in.)	1.7	1.4
Footprint on pipe	in.	1.9 x 2.4	1 x 3.3
Enclosure volume	in. ³	1.8	42
Enclosure open	in.	na	5 x 5
Electrical Connection	Type	na	Terms
Terminal Connection	Type	na	Screw
Maximum Conductor Size	AWG	⁽⁴⁾	8
Maximum Current Rating	Amps	⁽⁴⁾	50
Maximum Voltage Rating	Vac	⁽⁴⁾	600
Maximum Pipe Exposure Temperature	°C (°F)	250 (482)	121 (250) ⁽⁴⁾
Minimum Installation Temperature	°C (°F)	-40 (-40)	-40 (-40)
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X/IP66
Number of Individual Parts	Parts	5	21
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	10	38
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	RTV
Includes Materials w/Limited Shelf Life	If yes, type	N	RTV
Quality of Installation Documentation	Good/Poor	Good	Poor

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable

**RAYCHEM
E-100-A**

VS

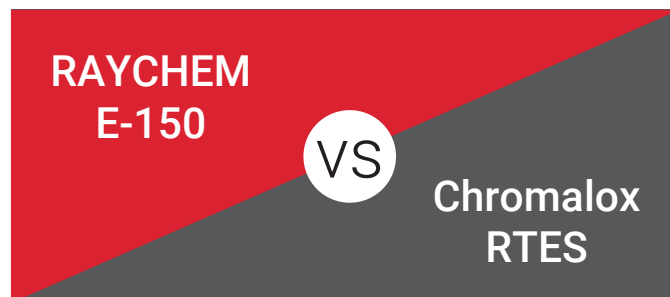
**NELSON
PLT-L**



End Connection Kits

Product feature	Competitive assessment	RAYCHEM E-150	Chromalox RTES
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	SRL, SRM/E, CWM
Hazardous Location Approvals	Y/N	Y	Y
Enclosure Material		na	PPS
Stand Material		na	na
Product Dimensions			
Stand height	in.	na	na
Insulation penetration	Dia (in.)	na	na
Footprint on pipe	in.	4 x 2	2 x 2
Enclosure volume	in. ³	na	na
Enclosure open	in.	na	na
Electrical Connection	Type	na	na
Terminal Connection	Type	na	na
Maximum Conductor Size	AWG	(4)	(4)
Maximum Current Rating	Amps	(4)	(4)
Maximum Voltage Rating	Vac	(4)	(4)
Maximum Pipe Exposure Temperature	°C (°F)	215 (419)	215 (419)
Minimum Installation Temperature	°C (°F)	-40 (-40)	-40 (-40)
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X
Number of Individual Parts	Parts	4	6
Part Size/Workability/Ergonomics	Good/Poor	Good	Good
Special Tools Required (not provided in kit)	If yes, type	N	N
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	5	7
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	N
Includes Materials w/Limited Shelf Life	If yes, type	N	N
Quality of Installation Documentation	Good/Poor	Good	Good

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable



End Connection Kits

Product feature	Competitive assessment	RAYCHEM E-150	RSCC 1548-81HOE
Heating Cable Compatibility		BTV, XTV, QTVR, VPL	LT, CLT, HLT
Hazardous Location Approvals	Y/N	Y	Y
Enclosure Material		na	N/A
Stand Material		na	na
Product Dimensions			
Stand height	in.	na	na
Insulation penetration	Dia (in.)	na	na
Footprint on pipe	in.	4 x 2	na
Enclosure volume	in. ³	na	na
Enclosure open	in.	na	na
Electrical Connection	Type	na	na
Terminal Connection	Type	na	na
Maximum Conductor Size	AWG	(4)	(4)
Maximum Current Rating	Amps	(4)	(4)
Maximum Voltage Rating	Vac	(4)	(4)
Maximum Pipe Exposure Temperature	°C (°F)	215 (419)	N/A
Minimum Installation Temperature	°C (°F)	-40 (-40)	N/A
Maximum Installation Temperature	°C (°F)	40 (104)	N/A
Enclosure Ingress Protection Rating	NEMA 4X/IP66	4X/IP66	4X
Number of Individual Parts	Parts	4	5
Part Size/Workability/Ergonomics	Good/Poor	Good	Poor
Special Tools Required (not provided in kit)	If yes, type	N	Y
Heat Source Required	Y/N	N	N
Number of Installation Steps	Steps	5	5
Contact with Sharp Parts	Y/N	N	N
Messy Parts/Practices	If yes, type	N	RTV
Includes Materials w/Limited Shelf Life	If yes, type	N	RTV
Quality of Installation Documentation	Good/Poor	Good	Good

1. Injection molded engineering plastic, type of material is unknown. 2. Terminal rated to 550 Vac. 3. Floating terminal, not DIN rail mounted 4. Based on heating cable rating 5. Option, not included with kit N/A = Not available na = Not applicable

RAYCHEM
E-150-A

VS

RSCC Heat
Trace Products Ltd.
1548-81HOE

