



**CONNECT AND PROTECT**

# Residential Heating Catalog

Comfort, Safety, and Performance

**RAYCHEM** **NUHEAT**



# nVent Residential Solutions

nVent provides quality solutions for comfort, safety, and performance in residential and light commercial applications.

nVent NUHEAT Floor Heating Systems add comfort and luxury to any interior space. nVent RAYCHEM offers solutions for pipe freeze protection, melting snow and ice, and hot water temperature maintenance.

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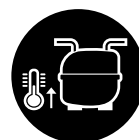
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**MTO ("Made To Order")** products do not qualify for prepaid freight and delivery time is estimated at time of order.

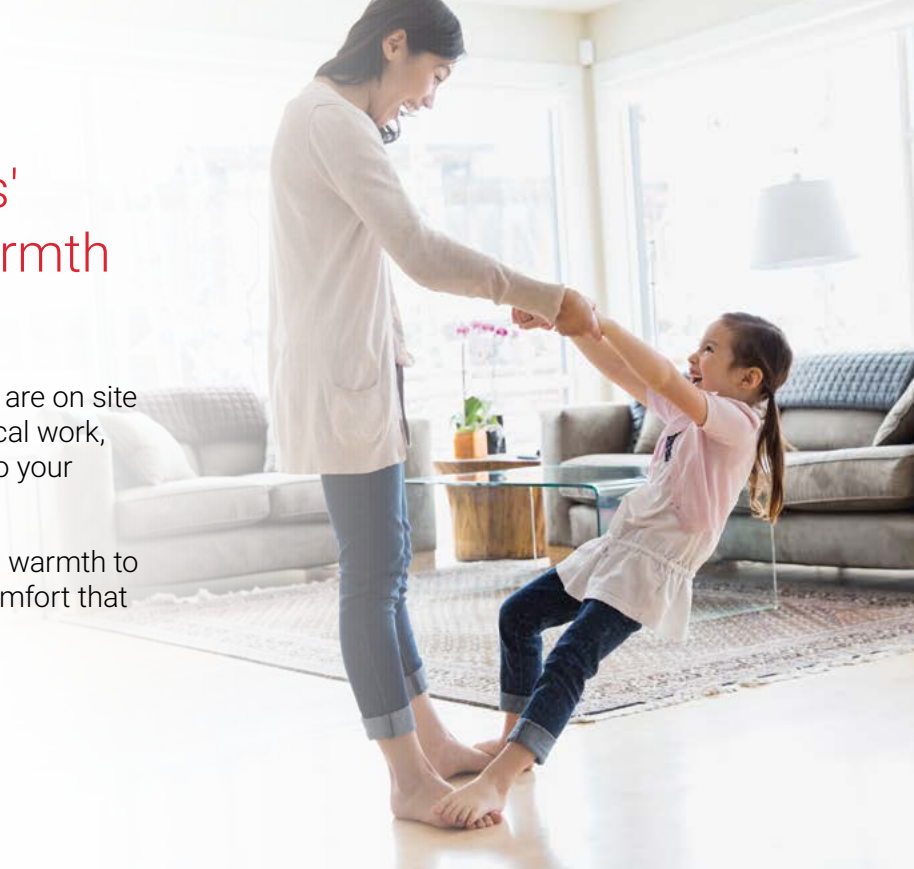
**FI ("Factory Inventoried")** products qualify for prepaid freight when the qualifying freight dollar amount is met and typical delivery time is immediate.

**QF ("Qualified for Freight")** products qualify for prepaid freight when the qualifying freight dollar amount is met and delivery time is estimated at time of order.

# Exceed your customers' expectations – Add warmth to any floor

As a flooring or electrical contractor, if you are on site installing a new floor or completing electrical work, now is the ideal time to add floor heating to your customer's home.

Exceed your customers' expectations! Add warmth to their new floor. They will love the added comfort that nVent NUHEAT brings to their home.



## WHY NVENT NUHEAT?

### *For Homeowners*

Comfort is everything, especially in your home. With nVent NUHEAT Electric Floor Heating Systems, you can offer the comfort of a warm floor that is maintenance-free for your customers. nVent NUHEAT Electric Floor Heating Systems are ideal for both new construction or renovation projects and come with a long list of benefits for homeowners...

#### **1. Improved Comfort & Safety**

- Provides even heat distribution throughout the living space, not concentrated near vents, radiators or the ceiling
- Improves indoor air quality by...
  - Facilitating the choice of low VOC\* surfaces (tile, slate, terrazzo, concrete) that otherwise may be perceived as cold
  - Establishing surface temperatures that prevent growth of mold, bacteria, viruses, and dust mites
  - Not circulating allergens or drying the air like forced air systems
- Is silent, invisible, and takes up no living space unlike baseboards and wall-mounted radiators
  - Furniture can be placed directly against walls
  - Eliminates unsightly heating equipment with risk of trip and fall injuries

#### **2. Peace of Mind**

- Maintenance-free and backed by the industry's best warranties, especially when installed by a nVent NUHEAT Certified PRO
- Certified PRO installers can offer the 25-Year Total Care Warranty which covers the entire installation including floor coverings, labor, and repairs
- nVent NUHEAT warranties are not pro-rated, protecting the owner's coverage value over time
- nVent NUHEAT has been manufacturing premium quality Electric Floor Heating Systems since 1989

#### **3. Energy Efficiency**

- Offers enhanced comfort at lower ambient temperature
- Doesn't waste energy heating unoccupied space (ceilings & vents)
- The quick warm-up time of nVent NUHEAT Systems enables "zone heating" – heating only the areas in use
- The nVent NUHEAT Signature WiFi thermostat allows you to control and monitor energy use from anywhere

#### **4. Affordability**

- nVent NUHEAT Floor Heating Systems add luxury and value to any home for a fraction of other renovation or building costs

\*Volatile Organic Compounds

# Why nVent NUHEAT?

Time is money! nVent NUHEAT has focused on supporting professional installers since the beginning and our systems offer several benefits for flooring and electrical contractors...



## *For Contractors*

### **1. Profitability**

- nVent NUHEAT Electric Floor Heating Systems are typically a small portion of building and renovation cost but they provide lasting, tangible benefit (high perceived value) for clients
- nVent NUHEAT offers premium quality and world-class support, meaning you spend more time installing and less time trouble-shooting

### **2. Expertise**

- Our team of experts is here to help – before, during, and after the installation; over the phone; and even on the job site
- The nVent NUHEAT Customer Care Team is available 5 days a week via phone, email, and instant online chat, giving you the support you need in the field

### **3. Easy Installation**

- nVent NUHEAT Systems install quickly and reduce site prep time, adding little additional labor to typical jobs such as bathroom or kitchen renovations
- Mats install quicker than any other system available and require little-to-no site prep, reducing time on-site
- The nVent NUHEAT product line encompasses all major types of electric floor heating systems, allowing contractors to choose the right system for the job and never having to worry about lesser quality on our less expensive solutions
- nVent NUHEAT Floor Heating Systems work with the widest variety of complimentary products and don't require use of certain products to receive complete warranty coverage
- nVent NUHEAT warranties do not require excessive testing or the use of specific mortars or other products for installation, allowing the contractor to decide what's best for the job

### **4. Quality**






- nVent NUHEAT has set the industry benchmark for quality and features since 1989, giving contractors a product line they can be proud to install and recommend

### **5. nVent NUHEAT Certified PRO Program**

- Certified PRO installers (CPROs) have exclusive rights to offer the 25-Year Total Care Warranty, covering the complete installation, including floor coverings, labor, and repairs
- CPROs get listed on Nuheat.com under "Find An Installer", benefitting from the heavy web traffic on Nuheat.com
- CPROs gain access to exclusive offers and loyalty benefits

# Find the Floor Heating You Need

## THE RIGHT SYSTEM FOR EVERY APPLICATION

	 <b>Custom Mats</b> The thinnest custom-built electric floor heating mat	 <b>Standard Mats</b> The thinnest pre-built electric floor heating mat	 <b>Cable</b> The robust floor heating cable solution	 <b>Cable &amp; Membrane</b> The integrated electric floor heating and uncoupling solution	 <b>Mesh</b> The self-adhesive electric floor heating solution
Ideal Use	Installations where shape of heated area is complex (features angles, curves, or multiple adjacent areas)  Low product profile and ease of installation are most important	Square and rectangular shaped areas  Low product profile and ease of installation are most important	Installations of all shapes (simple to complex) where on-site flexibility is most important	Tile installations of all shapes (simple to complex) where there is concern of subfloor movement and a risk of tiles cracking	Square and rectangular shaped areas where on-site flexibility is most important
Suitable floor surfaces	Tile, stone, laminate, engineered wood, luxury vinyl flooring	Tile, stone, laminate, engineered wood, luxury vinyl flooring	Tile, stone, laminate, engineered wood, luxury vinyl flooring	Tile and stone	Tile, stone, laminate, engineered wood, luxury vinyl flooring
Power Output	12 or 15 W/ft <sup>2</sup>	12 W/ft <sup>2</sup>	12 or 15 W/ft <sup>2</sup>	10, 12 or 15 W/ft <sup>2</sup>	12 W/ft <sup>2</sup>
Sizes	Up to 200 ft <sup>2</sup> for a single mat	+70 sizes up to 200 ft <sup>2</sup>	33 kit sizes 120 V - single kits (14) up to 120 ft <sup>2</sup> 240 V - single kits (19) up to 240 ft <sup>2</sup>	Membrane roll sizes Small - 54 ft <sup>2</sup> / Large - 161 ft <sup>2</sup>  Cable 33 kit sizes 120 V - single kits (14) up to 120 ft <sup>2</sup> 240 V - single kits (19) up to 240 ft <sup>2</sup>	32 kit sizes 120 V - single kits (13) up to 120 ft <sup>2</sup> 240 V - single kits (19) up to 240 ft <sup>2</sup>
Floor Shape	Custom built to fit exact shape of the room	Fixed shape (rectangular or square)	Adjustable on site	Adjustable on site	Adjustable on site
Installation Method	Thinset mortar	Thinset mortar	Secure cable guides on subfloor and affix cable to cable guides	Thinset mortar for Membrane then install Cable	Apply adhesive mesh on subfloor and secure using nails, staples, or hot glue
Self-Leveling Concrete	Not needed	Not needed	Recommended	Not needed	Recommended
Thickness	1/8 in	1/8 in	3/16 in	7/32 in	3/16 in
Uncoupling	No	No	No	Yes	No
Availability	Lead time varies, typically ships in 5 to 7 business days	Stock	Stock	Stock	Stock

All nVent NUHEAT products are backed by a 25-Year Product Warranty. An additional Total Care Warranty can also be applied if a product is installed by a nVent NUHEAT Certified PRO installer. See page 24 for details.



# Custom Mats

## THE THINNEST CUSTOM-MADE ELECTRIC FLOOR HEATING MAT



### FAST FACTS

- 150 ft<sup>2</sup> can be installed on a single 120 V circuit at 12 W/ft<sup>2</sup> (120 ft<sup>2</sup> at 15 W/ft<sup>2</sup>)
- 300 ft<sup>2</sup> can be installed on a single 240 V circuit (240 ft<sup>2</sup> at 15 W/ft<sup>2</sup>)
- Custom Mats typically ship in 5 to 7 business days, actual lead time varies and will be confirmed upon quotation and/or order.

Material	Single-conductor tinned copper braided heating wire sandwiched in a pre-configured pattern between two durable, porous layers of fabric
Operating Voltage	120 V, 208 V, and 240 V
Power Output	12 W/ ft <sup>2</sup> (15 W/ft <sup>2</sup> when required/specified)
Maximum Continuous Exposure Temperature	194°F (90°C)
Heating Cable	Single wire with ground braid outer layer
Cold Lead	2-wire, 18 AWG plus ground braid layer; 10 ft (3 m) length

### BENEFITS

**Perfect fit for any room:** the nVent NUHEAT Custom Mat is custom manufactured based on your floor dimensions to provide 100% heating coverage; once dimensions are confirmed, a Custom Mat is manufactured to fit the exact dimensions of your floor area

**Perfect heat distribution:** Custom Mats eliminate the need to calculate and experiment with wire spacing during the installation; consistent wire spacing and heat coverage is guaranteed

**Easy to install:** Custom Mats are ready to install right out of the box; the Custom Mat is simply adhered to the subfloor using thinset and flooring can be immediately installed on top

**Reduces installation time:** Custom Mats shorten the installation process compared to cable and mesh systems because they eliminate the need to manipulate the heating product on site

**Does not raise floor height:** Custom Mats guarantee minimal floor height increase; at 1/8 in thick, the ultra-low profile of this product reduces height buildup, making transitions possible without the use of transition strips

**Higher heat output options:** Custom Mats can be manufactured to produce the standard 12 W/ft<sup>2</sup> (41 BTUs/ft<sup>2</sup>) or 15 W/ft<sup>2</sup> (51 BTUs/ft<sup>2</sup>) for areas where more heat is needed, at no additional cost

**Short delivery time:** Custom Mats typically ship in 5 to 7 business days. Actual lead time varies and will be confirmed upon quotation and/or order.

**Error-free:** Custom Mats eliminate the need to calculate and experiment with wire spacing during the installation. Consistent wire spacing and heat coverage is guaranteed

# Custom Mats

## THE THINNEST CUSTOM-BUILT ELECTRIC FLOOR HEATING MAT

### HOW TO MEASURE YOUR ROOM FOR A CUSTOM MAT

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Pick a corner of the room and use that as the starting point for your measurements. Remember that you must return to this starting point at the end of your measurements.

1. Measure and draw the walls of the room on paper and record the measurements
2. Measure and draw the location of cabinets and vanities, make sure to take the measurement right up to the toe-kick
3. Measure and draw the location of floor features such as vents and toilet drains (measure from the walls to the center of the toilet drain)
4. Indicate the thermostat location and voltage

An online measuring tutorial is available at: <http://www.nuheat.com/customer-care/how-to-measure>

### HOW TO ORDER

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1. Obtain an accurately measured floor plan including all perimeter dimensions and any vents or obstacles in the floor. Note the thermostat location. See Mat Measuring above for steps to do this correctly.
2. Email your design and all customer and job information to [nuheatinfo@nVent.com](mailto:nuheatinfo@nVent.com)
3. Upon design confirmation, you will receive a quote for your project (quote turnaround time is ~24 hours)
4. Have customer confirm all dimensions and have customer sign off on their design; submit purchase order
5. Mat will arrive 6-7 business days from the time order is placed

### HOW TO INSTALL

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**Step 1:** Spread modified thinset onto subfloor using minimum 1/4 in x 1/4 in square notched trowel

**Step 2:** Place Custom Mat onto fresh thinset, press firmly to create 100% contact between Custom Mat, thinset and subfloor

**Step 3:** Secure floor sensor probe between heating wires

**Step 4:** Apply a thin layer of thinset and install tile/stone flooring as per manufacturer's instructions



# Custom Mats



## 120 VOLT CUSTOM MATS

Custom Mats are available in 12 W/ft<sup>2</sup> (standard output) or 15 W/ft<sup>2</sup> (high output).

MODEL #	AREA (FT <sup>2</sup> )	UOM	INV. TYPE
X1M008010	7.5 - 10.9	PC	MTO
X1M011020	11 - 20.9	PC	MTO
X1M021030	21 - 30.9	PC	MTO
X1M031040	31 - 40.9	PC	MTO
X1M041050	41 - 50.9	PC	MTO
X1M051060	51 - 60.9	PC	MTO
X1M061070	61 - 70.9	PC	MTO
X1M071080	71 - 80.9	PC	MTO
X1M081090	81 - 90.9	PC	MTO
X1M091100	91 - 100	PC	MTO

## 240 VOLT CUSTOM MATS

Custom Mats are available in 12 W/ft<sup>2</sup> (standard output) or 15 W/ft<sup>2</sup> (high output).

MODEL #	AREA (FT <sup>2</sup> )	UOM	INV. TYPE
X2M015020	15 - 20.9	PC	MTO
X2M021030	21 - 30.9	PC	MTO
X2M031040	31 - 40.9	PC	MTO
X2M041050	41 - 50.9	PC	MTO
X2M051060	51 - 60.9	PC	MTO
X2M061070	61 - 70.9	PC	MTO
X2M071080	71 - 80.9	PC	MTO
X2M081090	81 - 90.9	PC	MTO
X2M091100	91 - 100.9	PC	MTO
X2M101110	101 - 110.9	PC	MTO
X2M111120	111 - 120.9	PC	MTO
X2M121130	121 - 130.9	PC	MTO
X2M131140	131 - 140.9	PC	MTO
X2M141150	141 - 150.9	PC	MTO
X2M151160	151 - 160.9	PC	MTO
X2M161170	161 - 170.9	PC	MTO
X2M171180	171 - 180.9	PC	MTO
X2M181190	181 - 190.9	PC	MTO
X2M191200	191 - 200	PC	MTO

## CUSTOM MAT EXTENDED COLD LEAD

Standard cold leads are 10 feet long. Extended cold leads can be up to 22 feet, available in 2-foot increments.

MODEL #	DESCRIPTION	UOM	INV. TYPE
CUSTMAT	Custom Mat Extended Cold Lead	FT	MTO



# Standard Mats

## THE THINNEST PRE-BUILT ELECTRIC FLOOR HEATING MAT



### FAST FACTS

- 150 ft<sup>2</sup> can be installed on a single 120 V circuit
- 300 ft<sup>2</sup> can be installed on a single 240 V circuit

Material	Single-conductor tinned copper braided heating wire sandwiched in a pre-configured pattern between two durable, porous layers of fabric
Operating Voltage	120 V and 240 V
Power Output	12 W/ft <sup>2</sup> (standard mats are only 12 W/ft <sup>2</sup> )
Maximum Continuous Exposure Temperature	194°F (90°C)
Heating Cable	Single wire with ground braid outer layer
Cold Lead	2-wire, 18 AWG plus ground braid layer; 10 ft (3 m) length

### BENEFITS

**Easy to install:** nVent NUHEAT Standard Mats are pre-built and ready to install right out of the box; the Standard Mat is simply adhered to the subfloor using thinset and flooring can be immediately installed on top

**Error-free:** Standard Mats eliminate the need to calculate and experiment with wire spacing during the installation; consistent wire spacing and heat coverage is guaranteed

**Reduces installation time:** Standard Mats shorten the installation process compared to cable and mesh systems because it eliminates the need to manipulate the heating product on site

**Does not raise floor height:** Standard Mats guarantee minimal floor height increase; at 1/8 in thick, the ultra low profile of this product reduces the build up on the floor which makes transitions possible without the use of transition strips

**Comprehensive selection of sizes to choose from:** Standard Mats are available in over 60 standard sizes in both 120 V and 240 V which provide optimal floor heating coverage in most standard areas

**Available immediately:** Find a local distributor near you at <http://www.nuheat.com/where-to-buy>

### HOW TO INSTALL

**Step 1:** Spread modified thinset onto subfloor using minimum 1/4 in x 1/4 in square notched trowel

**Step 2:** Place Standard Mat onto fresh thinset, press firmly to create 100% contact between Standard Mat, thinset and subfloor

**Step 3:** Secure floor sensor probe between heating wires

**Step 4:** Apply a thin layer of thinset and install tile/stone flooring as per manufacturer's instructions

# Standard Mats

## 120 VOLT STANDARD MATS

Standard Mats produce 12 W/ft<sup>2</sup> and can be placed either side down in order to best fit the space.

MODEL #	PART #	UPC	DIMENSIONS	AMPS	WATTS	OHMS	UOM	INV. TYPE
F1006	FG0001	620713000014	40" x 27"	0.8	90	150.0	PC	FI
F1008	FG0002	620713000021	40" x 32"	0.9	107	133.3	PC	FI
F1010	FG0003	620713000038	40" x 40"	1.1	133	109.1	PC	FI
F1012	FG0004	620713000045	40" x 48"	1.3	160	92.3	PC	FI
F1206	FG0005	620713000052	48" x 24"	0.8	96	150.0	PC	FI
F1208	FG0006	620713000069	48" x 30"	1.0	120	120.0	PC	FI
F1209	FG0007	620713000076	48" x 36"	1.2	144	100.0	PC	FI
F1212	FG0008	620713001462	48" x 48"	1.6	192	75.0	PC	FI
F1506	FG0009	620713000083	60" x 24"	1.0	120	120.0	PC	FI
F1508	FG0010	620713000090	60" x 30"	1.3	150	92.3	PC	FI
F1509	FG0011	620713000106	60" x 36"	1.5	180	80.0	PC	FI
F1510	FG0012	620713000113	60" x 42"	1.8	210	66.7	PC	FI
F1512	FG0013	620713000120	60" x 48"	2.0	240	60.0	PC	FI
F1515	FG0014	620713000137	60" x 60"	2.5	300	48.0	PC	FI
F1806	FG0015	620713000144	72" x 24"	1.2	144	100.0	PC	FI
F1808	FG0016	620713000151	72" x 30"	1.5	180	80.0	PC	FI
F1809	FG0017	620713000168	72" x 36"	1.8	216	66.7	PC	FI
F1810	FG0018	620713000175	72" x 42"	2.1	252	57.1	PC	FI
F1812	FG0019	620713000182	72" x 48"	2.4	288	50.0	PC	FI
F1815	FG0020	620713000199	72" x 60"	3.0	360	40.0	PC	FI
F1818	FG0021	620713000205	72" x 72"	3.6	432	33.3	PC	FI
F2106	FG0029	620713000281	84" x 24"	1.4	168	85.7	PC	FI
F2108	FG0030	620713000298	84" x 30"	1.8	210	66.7	PC	FI
F2109	FG0031	620713000304	84" x 36"	2.1	252	57.1	PC	FI
F2110	FG0032	620713000311	84" x 42"	2.5	294	48.0	PC	FI
F2112	FG0033	620713000328	84" x 48"	2.8	336	42.9	PC	FI
F2115	FG0034	620713000335	84" x 60"	3.5	420	34.3	PC	FI
F2118	FG0035	620713000342	84" x 72"	4.2	504	28.6	PC	FI
F2121	FG0036	620713000359	84" x 84"	4.9	588	24.5	PC	FI
F2506	FG0037	620713000366	96" x 24"	1.6	192	75.0	PC	FI
F2508	FG0038	620713000373	96" x 30"	2.0	240	60.0	PC	FI
F2509	FG0039	620713000380	96" x 36"	2.4	288	50.0	PC	FI
F2510	FG0040	620713000397	96" x 42"	2.8	336	42.9	PC	FI
F2512	FG0041	620713000403	96" x 48"	3.2	384	37.5	PC	FI
F2515	FG0042	620713000410	96" x 60"	4.0	480	30.0	PC	FI
F2518	FG0043	620713000427	96" x 72"	4.8	576	25.0	PC	FI
F2521	FG0044	620713000434	96" x 84"	5.6	672	21.4	PC	FI
F2525	FG0045	620713000441	96" x 96"	6.4	768	18.8	PC	FI
F2706	FG0046	620713000458	108" x 24"	1.8	216	66.7	PC	FI
F2708	FG0047	620713000465	108" x 30"	2.3	270	52.2	PC	FI
F2709	FG0048	620713000472	108" x 36"	2.7	324	44.4	PC	FI
F2710	FG0049	620713000489	108" x 42"	3.2	378	37.5	PC	FI
F2712	FG0050	620713000496	108" x 48"	3.6	432	33.3	PC	FI
F2715	FG0051	620713000502	108" x 60"	4.5	540	26.7	PC	FI
F2718	FG0052	620713000519	108" x 72"	5.4	648	22.2	PC	FI
F2721	FG0053	620713000526	108" x 84"	6.3	756	19.0	PC	FI
F2725	FG0054	620713000533	108" x 96"	7.2	864	16.7	PC	FI
F2727	FG0055	620713000540	108" x 108"	8.1	972	14.8	PC	FI
F3006	FG0056	620713000557	118" x 24"	2.0	236	60.0	PC	FI
F3008	FG0057	620713000564	118" x 30"	2.5	295	48.0	PC	FI
F3009	FG0058	620713000571	118" x 36"	3.0	354	40.0	PC	FI
F3010	FG0059	620713000588	118" x 42"	3.4	413	35.3	PC	FI
F3012	FG0060	620713000595	118" x 48"	3.9	472	30.8	PC	FI
F3015	FG0061	620713000601	118" x 60"	4.9	590	24.5	PC	FI
F3018	FG0062	620713000618	118" x 72"	5.9	708	20.3	PC	FI
F3021	FG0063	620713000625	118" x 84"	6.9	826	17.4	PC	FI
F3025	FG0064	620713000632	118" x 96"	7.9	944	15.2	PC	FI
F3027	FG0065	620713000649	118" x 108"	8.9	1,062	13.5	PC	FI
F3030	FG0066	620713000656	118" x 116"	9.5	1,141	12.6	PC	FI

## 120 VOLT SHOWER MAT

The Shower Mat has a circular 5" center drain hole to fit a standard 32" square shower pan.

MODEL #	PART #	UPC	DIMENSIONS	AMPS	WATTS	OHMS	UOM	INV. TYPE
F032032-S	FG0307	620713001509	32" x 32"	0.7	84	171.4	PC	FI



# Standard Mats

## 240 VOLT STANDARD MATS

Standard Mats produce 12 W/ft<sup>2</sup> and can be placed either side down in order to best fit the space.

MODEL #	PART #	UPC	DIMENSIONS	AMPS	WATTS	OHMS	UOM	INV. TYPE
G1509	FG0101	620713000663	60" x 36"	0.8	180	0.8	PC	FI
G1510	FG0102	620713000670	60" x 42"	0.9	210	0.9	PC	FI
G1512	FG0103	620713000687	60" x 48"	1.0	240	1.0	PC	FI
G1515	FG0104	620713000694	60" x 60"	1.3	300	1.3	PC	FI
G1808	FG0105	620713000700	72" x 30"	0.8	180	0.8	PC	FI
G1809	FG0106	620713000717	72" x 36"	0.9	216	0.9	PC	FI
G1810	FG0107	620713000724	72" x 42"	1.1	252	1.1	PC	FI
G1812	FG0108	620713000731	72" x 48"	1.2	288	1.2	PC	FI
G1815	FG0109	620713000748	72" x 60"	1.5	360	1.5	PC	FI
G1818	FG0110	620713000755	72" x 72"	1.8	432	1.8	PC	FI
G2106	FG0117	620713000823	84" x 24"	0.7	168	0.7	PC	FI
G2108	FG0118	620713000830	84" x 30"	0.9	210	0.9	PC	FI
G2109	FG0119	620713000847	84" x 36"	1.1	252	1.1	PC	FI
G2110	FG0120	620713000854	84" x 42"	1.2	294	1.2	PC	FI
G2112	FG0121	620713000861	84" x 48"	1.4	336	1.4	PC	FI
G2115	FG0122	620713000878	84" x 60"	1.8	420	1.8	PC	FI
G2118	FG0123	620713000885	84" x 72"	2.1	504	2.1	PC	FI
G2121	FG0124	620713000892	84" x 84"	2.5	588	2.5	PC	FI
G2506	FG0125	620713000908	96" x 24"	0.8	192	0.8	PC	FI
G2508	FG0126	620713000915	96" x 30"	1.0	240	1.0	PC	FI
G2509	FG0127	620713000922	96" x 36"	1.2	288	1.2	PC	FI
G2510	FG0128	620713000939	96" x 42"	1.4	336	1.4	PC	FI
G2512	FG0129	620713000946	96" x 48"	1.6	384	1.6	PC	FI
G2515	FG0130	620713000953	96" x 60"	2.0	480	2.0	PC	FI
G2518	FG0131	620713000960	96" x 72"	2.4	576	2.4	PC	FI
G2521	FG0132	620713000977	96" x 84"	2.8	672	2.8	PC	FI
G2525	FG0133	620713000984	96" x 96"	3.2	768	3.2	PC	FI
G2706	FG0134	620713000991	108" x 24"	0.9	216	0.9	PC	FI
G2708	FG0135	620713001004	108" x 30"	1.1	270	1.1	PC	FI
G2709	FG0136	620713001011	108" x 36"	1.4	324	1.4	PC	FI
G2710	FG0137	620713001028	108" x 42"	1.6	378	1.6	PC	FI
G2712	FG0138	620713001035	108" x 48"	1.8	432	1.8	PC	FI
G2715	FG0139	620713001042	108" x 60"	2.3	540	2.3	PC	FI
G2718	FG0140	620713001059	108" x 72"	2.7	648	2.7	PC	FI
G2721	FG0141	620713001066	108" x 84"	3.2	756	3.2	PC	FI
G2725	FG0142	620713001073	108" x 96"	3.6	864	3.6	PC	FI
G2727	FG0143	620713001080	108" x 108"	4.1	972	4.1	PC	FI
G3006	FG0144	620713001097	118" x 24"	1.0	236	1.0	PC	FI
G3008	FG0145	620713001103	118" x 30"	1.2	295	1.2	PC	FI
G3009	FG0146	620713001110	118" x 36"	1.5	354	1.5	PC	FI
G3010	FG0147	620713001127	118" x 42"	1.7	413	1.7	PC	FI
G3012	FG0148	620713001134	118" x 48"	2.0	472	2.0	PC	FI
G3015	FG0149	620713001141	118" x 60"	2.5	590	2.5	PC	FI
G3018	FG0150	620713001158	118" x 72"	3.0	708	3.0	PC	FI
G3021	FG0151	620713001165	118" x 84"	3.4	826	3.4	PC	FI
G3025	FG0152	620713001172	118" x 96"	3.9	944	3.9	PC	FI
G3027	FG0153	620713001189	118" x 108"	4.4	1,062	4.4	PC	FI
G3030	FG0154	620713001196	118" x 116"	4.8	1,141	4.8	PC	FI
G144036	FG0422	620713010013	144" x 36"	1.8	432	1.8	PC	FI
G144060	FG0424	620713010020	144" x 60"	3.0	720	3.0	PC	FI
G144072	FG0425	620713010037	144" x 72"	3.6	864	3.6	PC	FI
G144096	FG0427	620713010044	144" x 96"	4.8	1,152	4.8	PC	FI
G144108	FG0428	620713010051	144" x 108"	5.4	1,296	5.4	PC	FI
G144120	FG0429	620713010068	144" x 120"	6.0	1,440	6.0	PC	FI
G144140	FG0430	620713010075	144" x 140"	7.0	1,679	7.0	PC	FI
G168096	FG0436	620713010082	168" x 96"	5.6	1,344	5.6	PC	FI
G168108	FG0437	620713010099	168" x 108"	6.3	1,512	6.3	PC	FI
G168120	FG0438	620713010105	168" x 120"	7.0	1,680	7.0	PC	FI
G168140	FG0440	620713010112	168" x 140"	8.2	1,960	8.2	PC	FI
G240120	FG0467	620713010129	240" x 120"	10.0	2,400	10.0	PC	FI

## STANDARD MAT EXTENDED COLD LEAD

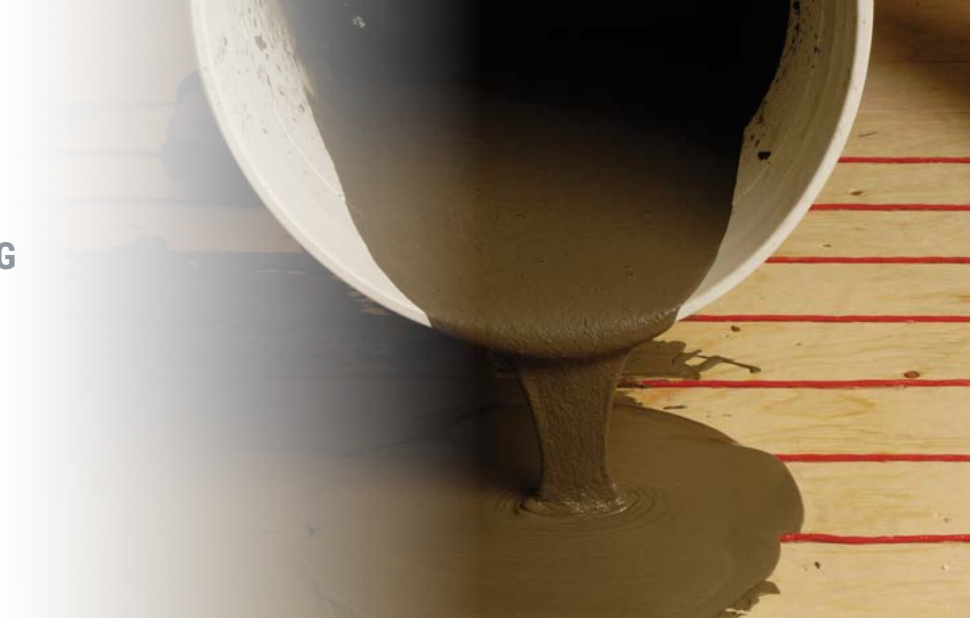
Standard cold leads are 10 feet long. Extended cold leads can be up to 22 feet, available in 2-foot increments.

MODEL #	DESCRIPTION	UOM	INV. TYPE
STDXL	Standard Mat Extended Cold Lead	FT	MTO



# Cable

## THE FLEXIBLE FLOOR HEATING CABLE SOLUTION

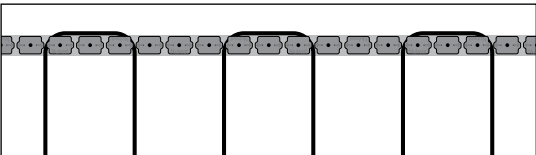


### FAST FACTS

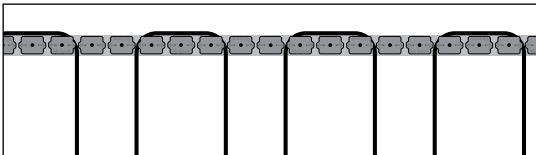
- nVent NUHEAT Cable Guides included
- Compatible with nVent NUHEAT Membrane
- Zero EMF heating cable design

Materials	Two single conductor, Tefzel-coated resistance wires covered by a tin-plated copper braid and then coated with a durable co-polymer (PVC) outer jacket
Operating Voltage	120 V and 240 V
Power Output	10 - 15 W/ft <sup>2</sup> (depending on wire spacing)
Maximum Ambient Temperature	194°F (90°C)
Heating Cable	2-wire, grounded, twisted pair with PVC outer jacket
Cold Lead	2-wire, 16-18 AWG plus ground braid layer; PVC outer jacket, 10 ft (3 m) length

### CABLE GUIDE SPACING OPTIONS\*

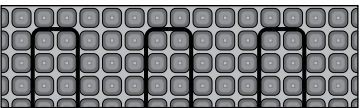


3 inch spacing (12 W/ft<sup>2</sup>)

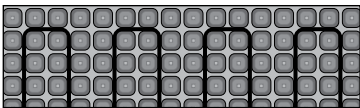


3/2/3 inch spacing (15 W/ft<sup>2</sup>)

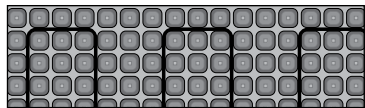
### MEMBRANE SPACING OPTIONS\*



2/3/2 pillar spacing (12 W/ft<sup>2</sup>)



2 pillar spacing (15 W/ft<sup>2</sup>)



3 pillar spacing (10 W/ft<sup>2</sup>)

\*Options shown are for nVent NUHEAT Cable Guides and nVent NUHEAT Membrane

### BENEFITS

**Flexible wire spacing and heat output:** flexible wire spacing enables differing heat output according to the needs of the user; enables installers to adapt spacing in low-touch areas to maximize coverage and cable use

**On-site adjustment:** easily adjust the layout on-site to provide heat where desired; ideal for complex room shapes with curves and angles

**Fits perfectly into nVent NUHEAT Membrane:** cold lead splice and end seal fits easily, with no cutting or modification required

**Comprehensive selection of sizes:** available in 33 sizes, consisting of 120 V and 240 V options, ensuring ideal coverage in any situation

**Available immediately:** find a local distributor near you at <http://www.nuheat.com/where-to-buy>

# Cable



## THE ROBUST FLOOR HEATING CABLE SOLUTION

### HOW TO INSTALL

- Step 1:** Plan the heating cable layout before securing any part of the floor heating system to the subfloor
- Step 3:** Install nVent NUHEAT Cable Guides or nVent NUHEAT Membrane according to the installation instructions
- Step 2:** Install the heating cable in the heated area according to the layout plan created in Step 1
- Step 4:** Secure the floor temperature sensor probe and route probe wire up to the thermostat electrical box
- Step 5:** Prepare the subfloor using self-levelling compound/thinset mortar as per manufacturer's instructions
- Step 6:** Install tile/stone flooring

### SELECT CABLE KIT FOR YOUR PROJECT

#### 120 VOLT CABLE

Cable offers multiple spacing and watt density options for the ultimate in installation flexibility.

MODEL #	PART #	UPC	AREA COVERAGE (FT²)					LENGTH (FT)	AMPS	WATTS	OHMS	UOM	INV. TYPE
			CABLE GUIDES		nVent NUHEAT MEMBRANE								
			3" SPACING 12 W/FT² (STANDARD)	2"/3"/2" SPACING 15 W/FT² (HIGH)	2/3/2 PILLAR SPACING 12 W/FT² (STANDARD)	2 PILLAR SPACING 15 W/FT² (HIGH)	3 PILLAR SPACING 10 W/FT² (LOW)						
N1C008	FG0601	620713030011	8	6	8	6	9	29	0.7	80	171.4	PC	FI
N1C012	FG0602	620713030028	12	9	12	10	14	47	1.2	138	100.0	PC	FI
N1C015	FG0603	620713030035	15	12	15	12	17	57	1.4	170	85.7	PC	FI
N1C025	FG0604	620713030042	25	20	25	21	30	98	2.5	299	48.0	PC	FI
N1C030	FG0605	620713030059	30	25	31	25	36	120	2.9	343	41.4	PC	FI
N1C040	FG0606	620713030066	40	30	38	31	45	148	3.7	442	32.4	PC	FI
N1C050	FG0607	620713030073	50	40	48	39	57	188	4.7	562	25.5	PC	FI
N1C060	FG0608	620713030080	60	50	60	49	71	234	6.0	719	20.0	PC	FI
N1C070	FG0609	620713030097	70	55	68	55	81	265	6.8	810	17.6	PC	FI
N1C080	FG0610	620713030103	80	65	82	66	97	318	7.9	947	15.2	PC	FI
N1C085	FG0611	620713030110	85	70	86	69	102	334	8.5	1,021	14.1	PC	FI
N1C095	FG0612	620713030127	95	80	97	78	115	377	9.7	1,161	12.4	PC	FI
N1C110	FG0613	620713030134	110	90	109	88	129	423	10.8	1,299	11.1	PC	FI
N1C120	FG0614	620713030141	120	100	122	98	145	474	12.2	1,461	9.8	PC	FI

#### 240 VOLT CABLE

Cable offers multiple spacing and watt density options for the ultimate in installation flexibility.

MODEL #	PART #	UPC	AREA COVERAGE (FT²)					LENGTH (FT)	AMPS	WATTS	OHMS	UOM	INV. TYPE
			CABLE GUIDES		nVent NUHEAT MEMBRANE								
			3" SPACING 12 W/FT² (STANDARD)	2"/3"/2" SPACING 15 W/FT² (HIGH)	2/3/2 PILLAR SPACING 12 W/FT² (STANDARD)	2 PILLAR SPACING 15 W/FT² (HIGH)	3 PILLAR SPACING 10 W/FT² (LOW)						
N2C015	FG0615	620713030158	15	12	14	12	17	56	0.7	165	342.9	PC	FI
N2C020	FG0616	620713030165	20	15	21	17	24	80	0.9	224	266.7	PC	FI
N2C025	FG0617	620713030172	25	20	26	21	31	102	1.3	302	184.6	PC	FI
N2C035	FG0618	620713030189	35	30	35	28	41	136	1.7	403	141.2	PC	FI
N2C045	FG0619	620713030196	45	35	46	37	54	178	2.2	523	109.1	PC	FI
N2C055	FG0620	620713030202	55	45	53	43	63	207	2.6	632	92.3	PC	FI
N2C065	FG0621	620713030219	65	50	64	52	76	250	3.1	742	77.4	PC	FI
N2C070	FG0622	620713030226	70	60	71	58	84	277	3.5	842	68.6	PC	FI
N2C085	FG0623	620713030233	85	70	86	69	102	334	4.3	1,020	55.8	PC	FI
N2C090	FG0624	620713030240	90	75	92	74	109	358	4.6	1,102	52.2	PC	FI
N2C100	FG0625	620713030257	100	85	101	82	120	393	5.0	1,211	48.0	PC	FI
N2C120	FG0626	620713030264	120	100	121	98	145	472	5.9	1,427	40.7	PC	FI
N2C135	FG0627	620713030271	135	110	136	110	162	529	6.8	1,621	35.3	PC	FI
N2C145	FG0628	620713030288	145	120	144	116	172	561	7.1	1,704	33.8	PC	FI
N2C160	FG0629	620713030295	160	130	162	131	193	630	8.0	1,914	30.0	PC	FI
N2C170	FG0630	620713030301	170	140	171	138	204	665	8.6	2,054	27.9	PC	FI
N2C190	FG0631	620713030318	190	160	195	157	233	757	9.6	2,314	25.0	PC	FI
N2C215	FG0632	620713030325	215	180	219	176	261	849	10.8	2,589	22.2	PC	FI
N2C240	FG0633	620713030332	240	200	246	198	293	953	12.1	2,905	19.8	PC	FI

# Membrane

## THE INTEGRATED ELECTRIC FLOOR HEATING AND UNCOUPLING SOLUTION



### FAST FACTS

- A tile underlayment that provides uncoupling, crack isolation, and floor heating cable guide features
- Compatible with modified and unmodified thinset
- Can be used to replace the top layer of subfloor, minimizing height buildup
- Available in standard and peel-and-stick formats

### STANDARD SPECIFICATIONS

Materials (standard)	Polypropylene sheet thermo-bonded to non-woven polypropylene fabric
Subfloor bond	Apply modified or unmodified thinset with a 1/4" x 3/8" notched trowel
Waterproofing	Yes, when used with waterproofing seam tape
Ratings	Robinson Floor Test (ASTM C627): 'Extra Heavy' rating ANSI A118.12 System Crack Resistance: 'High Performance' rating
Maximum Ambient Temperature	194°F (90°C)
Available Formats	Large Roll (161 ft²), Small Roll (54 ft²), Sheets (10.6 ft²)

### PEEL & STICK SPECIFICATIONS

Materials (Peel & Stick)	Vented polypropylene sheet with pressure-sensitive adhesive and release liner
Subfloor bond	Prep surface with acrylic flooring primer, remove release liner and apply membrane to subfloor; additional mechanical bond is created when thinset passes through mortar vents during floor covering installation
Waterproofing	No
Ratings	Robinson Floor Test (ASTM C627): 'Moderate' rating ANSI A118.12 System Crack Resistance: 'High Performance' rating
Maximum Ambient Temperature	194°F (90°C)
Available Formats	Sheets (10.6 ft²)

### BENEFITS

**Reduces risk of tile cracks due to subfloor movement:** provides uncoupling and crack isolation

**Acts as tile underlayment:** can replace a layer of plywood or concrete board in the subfloor assembly

**Compatible with nVent NUHEAT Cable:** specifically designed to accept the best-in-class nVent NUHEAT Cable without cutting or other modifications; nVent NUHEAT Cable enables flexible heat output with varied cable spacing.

**Compatible with modified and unmodified thinsets:** installers can use their thinset of choice

**On-site adjustment:** cut on-site to fit the room; ideal for complex room shapes with curves and angles

**Waterproofing:** standard nVent NUHEAT Membrane can be used as a waterproofing membrane with waterproofing seam team.

**Cleaner and easier installation:** nVent NUHEAT Peel & Stick Membrane installs in 40% less time than membranes that require thinset, reduces floor height buildup and eliminates thinset oozing through seams

**Available immediately:** find a local distributor near you at <http://www.nuheat.com/where-to-buy>

# Membrane

## THE INTEGRATED ELECTRIC FLOOR HEATING AND UNCOUPLING SOLUTION

### HOW TO INSTALL

**Step 1:** Spread thinset mortar onto the substrate using a 1/4" x 3/8" square- or u-notch trowel for standard Membrane or apply acrylic flooring primer to the substrate when using Peel & Stick Membrane

**Step 2:** Apply Membrane immediately onto thinset or onto acrylic primer after observing the manufacturer's recommended curing time

**Step 3:** Insert Cable into Membrane according to the layout plan (refer to Cable installation instructions)

**Step 4:** Install floor coverings; standard Membrane is compatible with either thinset or self-levelling compound on top, while Peel & Stick Membrane is only compatible with thinset on top

### MEMBRANE

Choose between standard Membrane or Peel & Stick Membrane to suit the installation requirements.

MODEL #	PART #	UPC	DESCRIPTION	AREA (FT <sup>2</sup> )	DIMENSIONS	UOM	INV. TYPE
NUMEM100PS	FG0802	620713031070	Peel & Stick Membrane Sheets (10 sheets per box)	105.6 (10.6 per sheet)	3'3" x 3'3" (per sheet)	PC	FI
NUMEM250PS	FG0801	620713031056	Peel & Stick Membrane Sheets (25 sheets per box)	264.1 (10.6 per sheet)	3'3" x 3'3" (per sheet)	PC	FI
NUMEM054	AC0106	715629008657	Small Membrane Roll	53.6	3'3" x 16'6"	PC	FI
NUMEM161	AC0105	715629008640	Large Membrane Roll	160.9	3'3" x 49'6"	PC	FI
NUMEM250	FG0800	715629008688	Membrane Sheets (25 sheets per box)	264.1 (10.6 per sheet)	3'3" x 3'3" (per sheet)	PC	FI

### WATERPROOFING SEAM TAPE

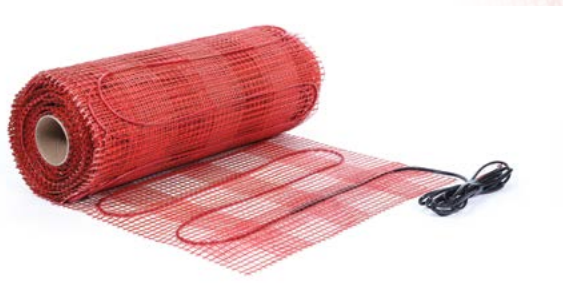
Standard Membrane acts as a waterproof barrier when seams are sealed with Waterproofing Seam Tape.

MODEL #	PART #	UPC	DESCRIPTION	AREA (FT <sup>2</sup> )	DIMENSIONS	UOM	INV. TYPE
PRBPE 1505	AC0107	715629008664	Small Seam Tape Roll	n/a	6" x 16'	PC	FI
PRBPE 1530	AC0108	715629008671	Large Seam Tape Roll	n/a	6" x 98'	PC	FI



# Mesh

## THE SELF-ADHESIVE ELECTRIC FLOOR HEATING SOLUTION



### FAST FACTS & ELECTRICAL DETAILS

- Zero EMF cable design
- 13 120 V kits, ranging in size from 12 ft<sup>2</sup> to 120 ft<sup>2</sup>
- Thin, cold lead and connection joint

Material	Two single conductor, Tefzel-coated resistance wires covered by a tin-plated copper braid and then coated with a durable co-polymer (PVC) outer jacket
Operating Voltage	120 V
Power Output	12 W/ft <sup>2</sup>
Maximum Continuous Exposure Temperature	194°F (90°C)
Heating Cable	2-wire, grounded, twisted pair with PVC outer jacket
Cold Lead	2-wire, 18 AWG plus ground braid layer; PVC outer jacket, 10 ft (3 m) length

### BENEFITS

**On-site adjustment:** easily adjust the layout on-site to provide heat where desired; ideal for rooms with rectangular heated areas

**Easy to apply:** the self-adhesive mesh roll sticks to the subfloor and mesh can be cut to provide heat where desired

**Comprehensive selection of sizes:** available in 13 sizes in 120 V, allowing full coverage of the heated area

**Available immediately:** find a local distributor near you at <http://www.nuheat.com/where-to-buy>

# Mesh



## THE SELF-ADHESIVE ELECTRIC FLOOR HEATING SOLUTION

### HOW TO INSTALL

**Step 1:** Roll Mesh onto the subfloor with the wire side down; start the Mesh installation from one corner of the room

**Step 2:** Lay out and secure Mesh onto subfloor; to make a turn, cut the mesh material with scissors (not the heating wire) and align the mesh roll in the desired direction, ensuring the wire side faces down; separate heating wire from Mesh to maintain heating coverage in small, angled, or difficult areas (if necessary)

**Step 3:** Embed Mesh in mortar (self-leveling compound or latex-modified thinset)

### 120 VOLT MESH

Mesh is configured for 12 W/ft<sup>2</sup>

MODEL #	PART #	UPC	DESCRIPTION	DIMENSIONS	AMPS	WATTS	OHMS	UOM	INV. TYPE
N1M012	SZ18300139	715629008329	12 ft <sup>2</sup>	20" x 8'	1.2	139	103.6	PC	FI
N1M015	SZ18300140	715629008336	15 ft <sup>2</sup>	20" x 9'	1.4	170	84.7	PC	FI
N1M025	SZ18300141	715629008343	25 ft <sup>2</sup>	20" x 15'	2.5	300	48.0	PC	FI
N1M030	SZ18300142	715629008350	30 ft <sup>2</sup>	20" x 19'	2.9	344	41.9	PC	FI
N1M040	SZ18300143	715629008367	40 ft <sup>2</sup>	20" x 23'	3.7	442	32.6	PC	FI
N1M050	SZ18300144	715629008374	50 ft <sup>2</sup>	20" x 29'	4.7	563	25.6	PC	FI
N1M060	SZ18300145	715629008381	60 ft <sup>2</sup>	20" x 36'	6.0	720	20.0	PC	FI
N1M070	SZ18300146	715629008398	70 ft <sup>2</sup>	20" x 41'	6.7	809	17.8	PC	FI
N1M080	SZ18300147	715629008404	80 ft <sup>2</sup>	20" x 49'	7.9	947	15.2	PC	FI
N1M085	SZ18300148	715629008411	85 ft <sup>2</sup>	20" x 52'	8.5	1,022	14.1	PC	FI
N1M095	SZ18300149	715629008428	95 ft <sup>2</sup>	20" x 58'	9.7	1,161	12.4	PC	FI
N1M110	SZ18300150	715629008435	110 ft <sup>2</sup>	20" x 65'	10.8	1,299	11.1	PC	FI
N1M120	SZ18300151	715629008442	120 ft <sup>2</sup>	20" x 73'	12.2	1,461	9.9	PC	FI

# Thermostats and Accessories



## SIGNATURE THERMOSTAT

The WiFi-enabled nVent NUHEAT Signature thermostat is the most connected floor heating control available today.

### FAST FACTS

- WiFi-enabled
- Works with popular smart home devices and home automation platforms  
Full list here: [nuheat.com/connected-home](http://nuheat.com/connected-home)
- Can be remotely operated via iOS® or Android® app or the MyNuheat.com web portal
- API documentation available for software developers to create custom integrations
- Displays local weather forecast
- Plus all features of the nVent NUHEAT Home thermostat
- 3-year limited warranty
- Dual-voltage (120 V and 240 V)
- 15 A maximum load



## HOME THERMOSTAT

Easy and intuitive programmable thermostat with a high resolution touchscreen interface.

### FAST FACTS

- 7 day programmable floor heating thermostat
- Built in on/off switch
- 3.5 inch color touchscreen
- Energy use monitor
- Floor sensing and ambient air sensing
- 3-Year Warranty
- Dual-voltage (120 V and 240 V)
- 15 A maximum load



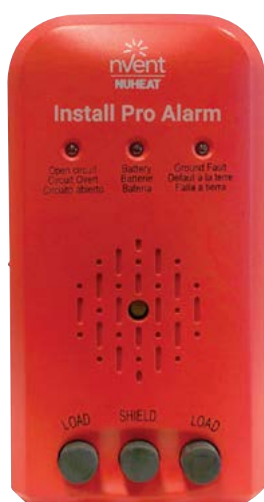
## ELEMENT THERMOSTAT

Basic electronic thermostat – simplified functionality for ease of use.

### FAST FACTS

- Non-programmable floor heating thermostat
- Offers basic control and features for energy usage info and physical on/off switch
- Energy efficient
- Floor sensing and ambient air sensing
- 3-Year Warranty
- Dual-voltage (120 V and 240 V)
- 15 A maximum load

# Thermostats and Accessories



## INSTALL PRO ALARM

nVent NUHEAT Install Pro Alarm (AC0200) is an electrical fault indicator that simultaneously monitors the hot, neutral and ground wires during installation of any line voltage floor heating system. If a wire is damaged during installation, the Install Pro Alarm will sound an alert, prompting the installer to stop and correct the problem before continuing.

AC0200 replaces the Mat Sense Pro (AC0100) and offers several improvements...

- Louder alarm tone
- Longer operating time
- More easily replaceable 9-volt battery (included)

Use an Install Pro Alarm with every installation to ensure the system is installed without undetected damage.

MODEL #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
SIGNATURE	AC0055	620713001714	Signature Thermostat	PC	FI
HOME	AC0056	620713001721	Home Thermostat	PC	FI
ELEMENT	AC0057	620713001738	Element Thermostat	PC	FI
NUHEAT-mechanical-relay-120V/25A	AC0006	620713004135	120 V / 25 Amp Relay	PC	FI
NUHEAT-mechanical-relay-240V/25A	AC0007	620713004159	240 V / 25 Amp Relay	PC	FI
AC0038	AC0038	620713031018	Cable Guides	PAC	FI
AC0040	AC0040	620713031025	Cable Repair Kit	PC	FI
AC0014	AC0014	715629008701	Mat Repair Kit	PC	FI
AC0016	AC0016	715629008718	120 V Lead Wire Repair Kit	PC	FI
AC0017	AC0017	620713004166	240 V Lead Wire Repair Kit	PC	FI
NUHEATSensor-Probe	AC0008	620713004081	Floor Temperature Sensor Probe	PC	FI
Install Pro Alarm	AC0200	620713031063	Install Pro Alarm Electric Fault Indicator	PC	FI



# nVent NUHEAT Certified PRO

If you are a licensed electrician or tile installer, you can become a nVent NUHEAT Certified PRO. As a Certified PRO installer, you will receive in-depth training that includes:

- An overall understanding of floor heating applications
- How to install all nVent NUHEAT Products
- Floor heating installation best practices, tips and tricks

Be the first to discover new products, innovations and have the opportunity to further deepen your professional expertise and add to your credentials.

The Certified PRO Program will recognize you as a dedicated installer who is trained to the highest industry standards in electric floor heating. Your certification is a reassurance to homeowners that they are hiring a true craftsman who has received best-in-class training for nVent NUHEAT Products.

## BENEFITS OF MEMBERSHIP

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- Become accredited
- Obtain exclusive rights to offer the nVent NUHEAT 25-Year Total Care Warranty\* on your floor heating installations
- Get listed on the Certified PRO installer search tool on Nuheat.com
- Take advantage of exclusive promotions and discounts
- Attend exclusive events

Interested? Visit our website <http://www.nuheat.com/certified-pro> to learn more.

## WARRANTY

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We believe in the superior quality of our products. That's why we offer a nVent NUHEAT 25-Year Product Warranty on all nVent NUHEAT Floor Heating Systems. We also offer a 25-Year Total Care Warranty for installations completed by Certified PRO installers.



### 25-Year Product Warranty

- 25-Year Warranty for the value of replacing any nVent NUHEAT floor heating product including Standard Mats, Custom Mats, Cable, Membrane, and Mesh

3-Year Warranty for the value of replacing nVent NUHEAT Thermostats, including Signature, Home, and Element. In order to qualify for this warranty, you must keep a copy of the tests report, relevant invoice, installation photographs and sketches. You must also complete an online warranty registration form within 30 days of installation.



### 25-Year Total Care Warranty\*

- STANDARD PRODUCT WARRANTY PLUS:
  - i. Cost of floor heating repair and installation
  - ii. Cost of floor covering material
  - iii. Cost of installation of floor covering

\*Total Care Warranty is an upgrade of our Product Warranty and is offered exclusively and at no additional cost for all installations completed by nVent NUHEAT Certified PRO installers. Learn more about how to become a nVent NUHEAT Certified PRO Installer at [nVent.com/NUHEAT](http://nVent.com/NUHEAT)



# Deliver winter safety and comfort to your customers' homes

They say an ounce of prevention is worth a pound of cure. nVent RAYCHEM residential winter safety solutions prevent frozen pipes, damage to roofs and gutters, slippery, icy walkways, and many more avoidable hazards that come with cold weather.

Electrical, plumbing, and refrigeration contractors can make their customers' home safer and more comfortable by looking for opportunities to promote nVent RAYCHEM winter safety solutions BEFORE the weather turns cold. Teach your customers to Love Winter!



## WHY NVENT RAYCHEM?

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### *For Homeowners*

Paradoxically, a warming climate means we are increasingly likely to experience extreme winter weather events, even in places with typically mild winters. With nVent RAYCHEM residential winter safety solutions, there is no need to put up with frozen pipes, leaking roofs, or slippery outdoor surfaces.

Benefits of nVent RAYCHEM residential winter safety solutions include...

#### **1. nVent RAYCHEM residential solutions are affordable and much less costly than repairs**

- A frozen water pipe can ruin your day but a burst water pipe can ruin your basement
- Damage caused by ice dams can destroy your roof

#### **2. Peace of Mind**

- Never worry about water damage from burst pipes or damaged roofing again
- Be confident that outdoor surfaces are free of snow and ice for the safety of all who step foot on your property

#### **3. Energy Efficiency**

- Self-regulating technology delivers heat when and where you need it, based on ambient temperature
- nVent RAYCHEM control and monitoring solutions ensure optimum energy use

#### **4. RAYCHEM is the originator of self-regulating technology**

- Over 1.8 billion feet of self-regulating cable installed worldwide... and counting!
- Our cables, components, and controls are designed and certified as a system for ultimate performance, reliability, and longevity
- nVent RAYCHEM self-regulating cable is made in the USA

# Why nVent RAYCHEM?



## *For Contractors*

As the inventors of self-regulating heat tracing, which we brought to market in 1972, the nVent RAYCHEM brand is recognized globally as the leader in winter safety solutions. Our premium quality residential products deliver the right amount of heat exactly when and where it is needed, in formats that are easily installed and affordable for home owners.

Contractors trust nVent RAYCHEM residential solutions to get the job done right the first time. Our complete offering includes self-regulating cables, mineral insulated cables, and control and monitoring solutions, all designed to work together for safe and reliable operation.

Offer your customers nVent RAYCHEM residential winter safety products with the confidence that comes from working with the world's leading supplier and **Love Winter** this year and every year!

### **1. Quality**

- nVent RAYCHEM has set the standard in electrical winter safety products since 1972
- Our premium offering makes no compromise on quality, giving contractors a product line they can be proud to install and recommend to any customer

### **2. Expertise**

- Our team of experts is here to help – before, during, and after the installation
- The nVent RAYCHEM Customer Care Team is available 5 days a week via phone and email, giving you the support you need in the field
- Visit [nVent.com/RAYCHEM](https://www.nvent.com/RAYCHEM) or go to our [nVent Thermal YouTube channel](#) for helpful installer resources

### **3. Easy Installation**

- nVent RAYCHEM residential products are engineered with quick and easy installation in mind
- Pre-assembled solutions like FrostGuard and all-in-one kits like the WinterGard TruckPaks are designed for on-site versatility and minimizing trips to the distributor
- nVent RAYCHEM residential solutions are widely available throughout the US and Canada – go to <https://www.nvent.com/RAYCHEM/nvent-raychem-where-buy> to find a distributor near you

### **4. Profitability**

- Our winter safety products are inexpensive compared to the costs associated with repairs resulting from cold weather damage, making them ideal for add-on sales at the job site
- Premium quality and world-class support means you spend less time trouble-shooting or dealing with call-backs

# RAYCHEM WinterGard Mesh Surface Snow Melting

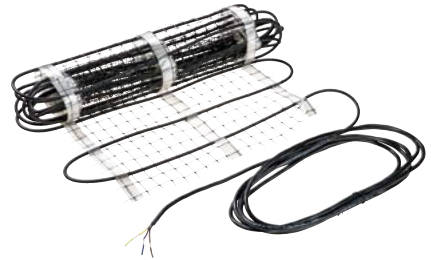
The nVent RAYCHEM WinterGard Mesh Surface Snow Melting System is designed for installation in concrete, asphalt, or sand/limestone screenings under paving stones.

WinerGard Mesh uses constant wattage cable and the mesh layout is configured for 50 W/ft<sup>2</sup>. 25 different SKUs are available in 120 V & 240 V and in 2-foot and 3-foot widths, covering between 10 ft<sup>2</sup> and 120 ft<sup>2</sup> with a single mesh roll. Each roll includes 16.4 foot (5 meter) cold lead for termination in a junction box.



## SPECIFICATIONS

Nominal Power Output:	50 W/ft <sup>2</sup> (538 W/m <sup>2</sup> )
Cold Lead Length:	16.4 ft (5 m)
Maximum Exposure Temperature:	221 °F (105 °C)
Minimum Installation Temperature:	23 °F (-5 °C)
Minimum Bend Radius:	6 times the cable's outside diameter
Agency approvals:	cCSAus usage WS, X and Type C





# RAYCHEM WinterGard Mesh Surface Snow Melting

## WINTERGARD MESH PRODUCT SELECTION

CATALOG #	VOLTAGE (V)	WIDTH (FT)	LENGTH (FT)	AREA (FT <sup>2</sup> )	RESISTANCE (Ω)	POWER (W)
WM1-0205	120	2	5	10	28.8	500
WM1-0210	120	2	10	20	14.4	1000
WM1-0215	120	2	15	30	9.6	1500
WM1-0220	120	2	20	40	7.2	2000
WM1-0225	120	2	25	50	5.8	2500
WM1-0230	120	2	30	60	4.8	3000
WM1-0310	120	3	10	30	9.6	1500
WM1-0315	120	3	15	45	6.4	2250
WM1-0320	120	3	20	60	4.8	3000
WM2-0205	240	2	5	10	115.2	500
WM2-0210	240	2	10	20	57.6	1000
WM2-0215	240	2	15	30	38.4	1500
WM2-0220	240	2	20	40	28.8	2000
WM2-0225	240	2	25	50	23.0	2500
WM2-0230	240	2	30	60	19.2	3000
WM2-0235	240	2	35	70	16.5	3500
WM2-0240	240	2	40	80	14.4	4000
WM2-0245	240	2	45	90	12.8	4500
WM2-0250	240	2	50	100	11.5	5000
WM2-0260	240	2	60	120	9.6	6000
WM2-0310	240	3	10	30	38.4	1500
WM2-0320	240	3	20	60	19.2	3000
WM2-0325	240	3	25	75	15.4	3750
WM2-0330	240	3	30	90	12.8	4500
WM2-0340	240	3	40	120	9.6	6000

## CONTROL & MONITORING

WinterGard Mesh products work with nVent RAYCHEM control and monitoring solutions such as...

### Snow controllers

- **PD Pro:** energy-efficient automated control unit for snow melting and gutter de-icing applications; works with up to two snow/ice sensors (Snow Owl, GIT-1, SIT-6E – sold separately) to activate system when precipitation is present below 38°F (3.3°C). Requires the use of additional ground fault equipment protection.
- **GF Pro:** same features as the PD Pro and also includes 30 mA ground fault equipment protection (GFEP)
- **RCU-3 and RCU-4:** remote control devices that work with the PD PRO and GF PRO respectively

### Snow sensors

- **Snow Owl:** aerial snow sensor that works with the PD PRO or GF PRO
- **SIT-6E:** pavement-mounted snow and ice sensor that works with the PD PRO or GF PRO

See nVent RAYCHEM Thermostats & Controls elsewhere in this catalog for more information.

## BENEFITS

- Suitable for use with concrete, asphalt, or sand/limestone screenings under paving stones
- Available in 120 V & 240 V
- Offered in 2 ft and 3 ft widths for quick and easy installation in various areas
- Pre-terminated with 16.4' (5 m) cold lead

# FrostGuard Heating Cables

nVent RAYCHEM FrostGuard heating cables are designed for pipe freeze protection and roof and gutter de-icing in residential and light commercial applications. FrostGuard features nVent RAYCHEM self-regulating cable technology and is approved for use in nonhazardous areas.

120 V FrostGuard cables come pre-assembled in 6, 12, 18, 24, 36, 50, 75 and 100-ft. lengths. 120 V cables offer plug-and-play installation thanks to an integrated 6-foot power cord and a lighted, grounded, 3-prong plug that indicates when the cable has power. 120 V FrostGuard is ideal for roof and gutter de-icing and for pipe freeze protection on metal or plastic pipes up to 2-1/2 inches in diameter.

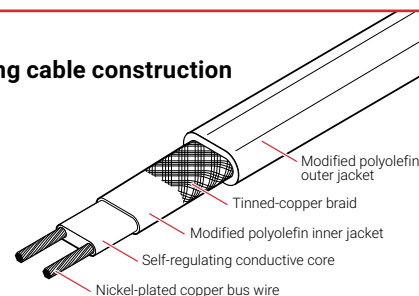
240 V FrostGuard cables include a 6-foot power cord for quick and easy termination in a junction box. They come pre-assembled in 6, 12, 18, and 24-ft. lengths. 240 V FrostGuard cables are designed for pipe freeze protection, on pipes up to 2-1/2 inches in diameter.



## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself

Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V and 240 V
Nominal Output (pipes) @ 40°F (4°C)	6 W/ft. (20 W/m)
Nominal Output (snow/ice) @ 32°F (0°C)	8 W/ft. (26 W/m)
Outer Jacket Material:	Modified polyolefin
Insulating Jacket Material:	Modified polyolefin
Color:	Black
Ground Path Type:	Braid
Min Installation Temperature:	5°F (-15°C)
Max Exposure Temperature:	150°F (66°C)
Nominal Cable Weight:	1.12 oz./ft. (104 g/m)
Nominal Width:	0.415" (10.5 mm)
Nominal Thickness:	0.215" (5.5 mm)
Agency approvals:	c CSA us Certified -WS Usage File No. 021133_C_000





# FrostGuard Heating Cables

## 120 VOLT FROSTGUARD

120 V FrostGuard cables come pre-assembled with a 6-ft power cord featuring a 3-prong, grounded, lighted plug that indicates when the system is on. 120 V FrostGuard cables are ideal for roof and gutter de-icing and pipe freeze protection on metal or plastic pipes up to 2-1/2 inches in diameter.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
FG1-6P	P000002022	715629008107	6 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-12P	P000002023	715629008114	12 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-18P	P000002024	715629008121	18 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-24P	P000002025	715629008138	24 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-36P	P000002038	715629008220	36 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-50P	P000002026	715629008145	50 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-75P	P000002027	715629008152	75 ft. 120 V FrostGuard Heating Cable	PC	FI
FG1-100P	P000002028	715629008169	100 ft. 120 V FrostGuard Heating Cable	PC	FI

## 240 VOLT FROSTGUARD

240 V FrostGuard cables come pre-assembled with a 6-ft power cord for terminating in a junction box. 240 V FrostGuard cables are designed only for pipe freeze protection applications on pipes up to 2-1/2 inches in diameter.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
FG2-6L	P000002029	715629008176	6 ft. 240 V FrostGuard Heating Cable	PC	FI
FG2-12L	P000002030	715629008183	12 ft. 240 V FrostGuard Heating Cable	PC	FI
FG2-18L	P000002031	715629008190	18 ft. 240 V FrostGuard Heating Cable	PC	FI
FG2-24L	P000002032	715629008206	24 ft. 240 V FrostGuard Heating Cable	PC	FI



## BENEFITS

- Pre-assembled self-regulating cable with power connection and end seal
- 120 V: easy plug-and-play installation for contractors or DIYers, includes lighted plug
- 240 V: pre-assembled with a pig-tailed cold lead
- Robust, water-tight, and UV-resistant construction
- 6 W/ft output at @ 40°F (4°C)

# WinterGard Wet Heating Cables

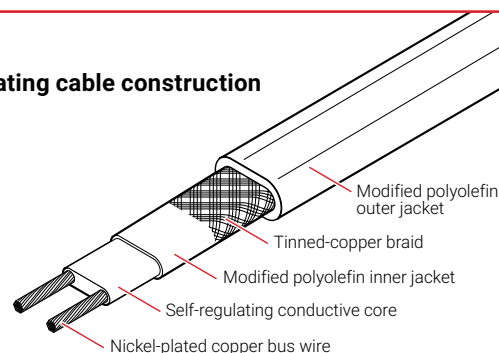
nVent RAYCHEM WinterGard Wet cut-to-length heating cable provides convenient and reliable freeze protection for a wide variety of residential and light commercial pipe freeze protection and roof-and-gutter de-icing applications. WinterGard Wet can be used in wet and dry, nonhazardous locations with circuit lengths up to 400 feet and power output of 6 W/ft. at 40°F (4°C). WinterGard Wet can also be used for freeze protection of refrigeration condensate drains with a power output of 8 W/ft. at 32°F (0°C).



## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length

### Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V & 240 V
Nominal Output (pipes) @ 40°F (4°C)	6 W/ft. (20 W/m)
Nominal Output (snow/ice) @ 32°F (0°C)	8 W/ft. (26 W/m)
Outer Jacket Material:	Modified polyolefin
Insulating Jacket Material:	Modified polyolefin
Color:	Black
Ground Path Type:	Braid
Min Installation Temperature:	0°F (-18°C)
Max Exposure Temperature:	150°F (66°C)
Nominal Cable Weight:	1.12 oz./ft. (104 g/m)
Nominal Width:	0.415" (10.5 mm)
Nominal Thickness:	0.215" (5.5 mm)
Agency approvals:	UL System Listed 718K Pipe Heating Cable File E58106 UL System Listed 877Z De-Icing & Snow Melting Equip. File E74811 CSA Certified -WS Usage File No. 021133_C_000





# WinterGard Wet Heating Cables

## CIRCUIT SIZING GUIDE

HEATING CABLE TYPE	CIRCUIT BREAKER RATING (A)	MAXIMUM HEATER LENGTH (FT) PER CIRCUIT AT START-UP TEMPERATURE		
		0°F (-18°C)	32°F (0°C)	40°F (4°C)
<b>WinterGard Wet 120 V</b> H612 on pipe	15	125		150
	20	140		195
	30	200		200
<b>WinterGard Wet 120 V</b> H612 in refrigeration condensate drains and on roofs	15	100	125	
	20	125	165	
	30	150	200	
<b>WinterGard Wet 240 V</b> H622 on pipe	15	200		255
	20	250		340
	30	375		400
<b>WinterGard Wet 240 V</b> H622 in refrigeration condensate drains and on roofs	15	200	250	
	20	250	320	
	30	305	400	

**Note:** Maximum circuit lengths are based on start-up load. Steady-state amps per foot is dependent upon heating cable temperature.

## WINTERGARD WET HEATING CABLES

WinterGard Wet can be used in wet and dry, nonhazardous locations with circuit lengths up to 250 feet and power output of 6 W/ft. at 40°F (4°C).

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H612050	196811-000	715629000163	50 ft. 120 V WinterGard Wet Heating Cable	PC	FI
H612250	278989-000	715629000187	250 ft. 120 V WinterGard Wet Heating Cable	PC	FI
H612500	037453-000	715629000996	500 ft. 120 V WinterGard Wet Heating Cable	PC	FI
H6121000	848237-000	715629000835	1000 ft. 120 V WinterGard Wet Heating Cable	PC	FI
H622050	301635-000	715629000224	50 ft. 240 V WinterGard Wet Heating Cable	PC	FI
H622250	591185-000	715629000248	250 ft. 240 V WinterGard Wet Heating Cable	PC	FI
H622500	652037-000	715629001007	500 ft. 240 V WinterGard Wet Heating Cable	PC	FI
H6221000	203365-000	715629000842	1000 ft. 240 V WinterGard Wet Heating Cable	PC	FI

## WINTERGARD WET TRUCKPAKS

WinterGard Wet TruckPaks include 100 feet of WinterGard Wet Cable, two Hardwired Power Connection Kits, one Splice and Tee Kit, one roll of Application Tape, and 10 Electric Heat Traced Labels.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H612100	640509-000	715629000170	120 V WinterGard Wet TruckPak	PC	FI
H622100	403503-000	715629000231	240 V WinterGard Wet TruckPak	PC	FI

## BENEFITS

- Self-regulating, cut-to-length cable
- For pipe freeze protection or roof and gutter de-icing
- TruckPaks include everything required for two standard pipe freeze protection installations
- Robust, water-proof, and UV-resistant construction
- 6 W/ft output at @ 40°F (4°C)

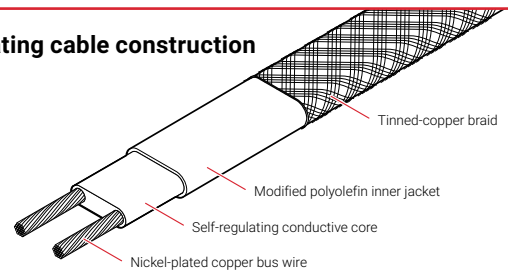
# WinterGard Plus Heating Cables

nVent RAYCHEM WinterGard Plus cut-to-length heating cable is the convenient and reliable way to winterize metal and plastic pipes for cold-water, service, and wastewater. WinterGard Plus can be used for pipe freeze protection in dry, nonhazardous locations with circuit lengths up to 400 feet and power output of 6 W/ft. at 40°F (4°C).

## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length

Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V & 240 V
Nominal Output @ 40°F (4°C)	6 W/ft. (20 W/m)
Maximum Circuit Length:	250 ft. (76 m)
Outer Jacket Material:	None
Insulating Jacket Material:	Modified polyolefin
Color:	Blue (120 V) & Red (240 V)
Ground Path Type:	Braid
Min Installation Temperature:	0°F (-18°C)
Max Exposure Temperature:	150°F (66°C)
Nominal Cable Weight:	0.96 oz./ft. (89 g/m)
Nominal Width:	0.38" (9.7 mm)
Nominal Thickness:	0.18" (4.6 mm)
Agency approvals:	UL System Listed 718K Pipe Heating Cable File E58106 CSA Certified -G Usage File No. 021133_C_000

## CIRCUIT SIZING GUIDE

HEATING CABLE TYPE	CIRCUIT BREAKER RATING (A)	MAXIMUM HEATER LENGTH (FT) PER CIRCUIT AT START-UP TEMPERATURE		
		0°F (-18°C)	32°F (0°C)	40°F (4°C)
<b>WinterGard Plus 120 V</b> H611 on pipe	15	125		150
	20	140		195
	30	200		200
<b>WinterGard Plus 240 V</b> H621 on pipe	15	200		255
	20	250		340
	30	375		400

**Note:** Maximum circuit lengths are based on start-up load. Steady-state amps per foot is dependent upon heating cable temperature.



# WinterGard Plus Heating Cables

## WINTERGARD PLUS HEATING CABLES

WinterGard Plus can be used for pipe freeze protection in dry, nonhazardous locations with circuit lengths up to 400 feet and power output of 6 W/ft. at 40°F (4°C).

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H611050	487817-000	715629000132	50 ft. 120 V WinterGard Plus Heating Cable	PC	FI
H611250	107153-000	715629000156	250 ft. 120 V WinterGard Plus Heating Cable	PC	FI
H621050	330419-000	715629000194	50 ft. 240 V WinterGard Plus Heating Cable	PC	FI
H621250	511569-000	715629000217	250 ft. 240 V WinterGard Plus Heating Cable	PC	FI

## WINTERGARD PLUS TRUCKPAKS

WinterGard Plus TruckPaks include 100 feet of WinterGard Plus Cable, two Hardwired Power Connection Kits, one Splice and Tee Kit, one roll of Application Tape, and 10 Electric Heat Traced Labels.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H611100	192789-000	715629000149	120 V WinterGard Plus TruckPak	PC	FI
H621100	945417-000	715629000200	240 V WinterGard Plus TruckPak	PC	FI

## BENEFITS

- Self-regulating, cut-to-length cable
- For pipe freeze protection
- TruckPaks include everything required for two standard pipe freeze protection installations
- For larger plastic or metal pipes up to 6 inches in diameter
- 6 W/ft output at @ 40°F (4°C)



# WinterGard Heating Cables

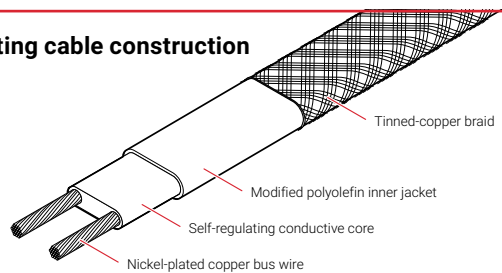
nVent RAYCHEM WinterGard cut-to-length heating cable is the economical way to winterize metal and plastic pipes for cold-water, service, and wastewater. WinterGard can be used for pipe freeze protection in dry, nonhazardous locations with circuit lengths up to 250 feet and power output of 3 W/ft. at 40°F (4°C).



## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length

Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V
Nominal Output @ 40°F (4°C)	3 W/ft. (10 W/m)
Outer Jacket Material:	None
Insulating Jacket Material:	Modified polyolefin
Color:	Blue
Ground Path Type:	Braid
Min Installation Temperature:	0°F (-18°C)
Max Exposure Temperature:	150°F (66°C)
Nominal Cable Weight:	0.96 oz./ft. (89 g/m)
Nominal Width:	0.38" (9.7 mm)
Nominal Thickness:	0.18" (4.6 mm)
Agency approvals:	UL System Listed 718K Pipe Heating Cable File E58106 CSA Certified -G Usage File No. 021133_C_000

## CIRCUIT SIZING GUIDE

HEATING CABLE TYPE	CIRCUIT BREAKER RATING (A)	MAXIMUM HEATER LENGTH (FT) PER CIRCUIT AT START-UP TEMPERATURE		
		0°F (-18°C)	32°F (0°C)	40°F (4°C)
WinterGard 120 V H311 on pipe	15	150		250
	20	200		250
	30	250		250

**Note:** Maximum circuit lengths are based on start-up load. Steady-state amps per foot is dependent upon heating cable temperature.



# WinterGard Heating Cables

## WINTERGARD HEATING CABLES

WinterGard can be used for pipe freeze protection in dry, nonhazardous locations with circuit lengths up to 250 feet and power output of 3 W/ft. at 40°F (4°C).

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H311250	064721-000	715629000125	250 ft. 120 V WinterGard Heating Cable	PC	FI

## WINTERGARD TRUCKPAKS

WinterGard TruckPaks include 100 feet of WinterGard Cable, two Hardwired Power Connection Kits, one Splice and Tee Kit, one roll of Application Tape, and 10 Electric Heat Traced Labels.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H311100	144941-000	715629000118	120 V WinterGard TruckPak	PC	FI

## BENEFITS

- Self-regulating, cut-to-length cable
- For pipe freeze protection
- TruckPaks include everything required for two standard pipe freeze protection installations
- For plastic or metal pipes up to 2 inches in diameter
- 3 W/ft output at @ 40°F (4°C)



# WinterGard Accessories

nVent RAYCHEM accessories for WinterGard products enable quick and easy installation and comply with nVent warranties and agency approvals. Always choose genuine nVent RAYCHEM accessories to ensure performance, longevity, and code compliance for your WinterGard installations.



## POWER CONNECTION KITS

These kits enable safe and easy connection and termination WinterGard cables. H908 allows quick and easy connection of 120 V WinterGard, WinterGard Plus, and WinterGard Wet cables directly to a standard 120 V outlet and includes ground fault circuit protection. H900 works with either 120 or 240 V WinterGard Plus or WinterGard Wet cables. Both kits include an end seal.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H900	396537-000	715629000255	Hardwired Power Connection Kit	PC	FI
H908	893515-000	715629000316	Plug-in Power Connection Kit	PC	FI

## SPLICE & TERMINATION KITS

These kits enable safe, easy, and waterproof splicing, tee-ing, and termination of WinterGard, WinterGard Plus and WinterGard Wet cables. H910 contains materials for one end seal and either one splice or one tee connection. H912 contains two gel-filled end seals.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H910	217793-000	715629000330	Splice & Tee Kit	PC	FI
H912	763791-000	715629000804	End Seal Kit	PC	FI

## BENEFITS

- Designed specifically for WinterGard products to deliver enhanced safety, versatility, service life, and performance
- Required for full warranty coverage



# WinterGard & FrostGuard Accessories

## INSTALLATION ACCESSORIES

These accessories maximize the versatility and safety of installations using WinterGard and FrostGuard cable. Genuine nVent RAYCHEM accessories are required in order to maintain agency approvals and warranty for nVent RAYCHEM heating cables.



- nVent RAYCHEM H903 includes ½-inch wide, 66-foot long roll of fiberglass-reinforced tape to secure heating cables in pipe freeze protection applications and 10 “Electric Traced” safety labels to indicate the presence of heating cable below pipe insulation.
- nVent RAYCHEM H913 and H914 contain clips used to secure WinterGard Wet or FrostGuard cables in roof and gutter de-icing applications. The clips attach directly to shingles, with screws or nails to shakes, or with adhesive on metal, slate or composite roofing.
- nVent RAYCHEM H915 provides mechanical protection and strain relief for WinterGard Wet or FrostGuard heating cables when entering downspouts and over sharp edges in roof and gutter de-icing applications.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
H903	586649-000	715629000279	Application Tape & Labels	PC	FI
H913	876259-000	715629000958	10pc Roof Clips	PAC	FI
H914	194719-000	715629000965	50pc Roof Clips	PAC	FI
H915	882781-000	715629000972	Downspout Hanger Bracket	PC	FI

## BENEFITS

- Designed specifically for WinterGard and FrostGuard products to deliver enhanced safety, versatility, service life, and performance
- Required for full warranty coverage





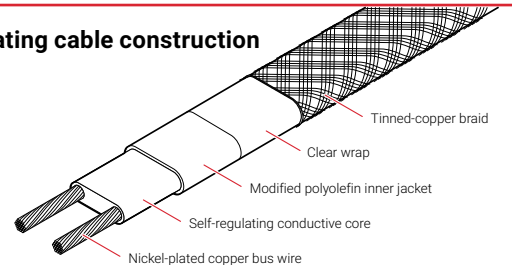
# Frostex Heating Cables & Accessories

Residential Pipe Freeze Protection in an economical and easy-to-install configuration. nVent RAYCHEM Frostex remains flexible in cold temperatures, there is no stripping of wires required, and it is easy to connect to power with the nVent RAYCHEM Frostex FlexFit Plug kit.

## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length

### Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V
Nominal Output @ 50°F (10°C)	3 W/ft. (10 W/m)
Maximum Circuit Length:	50 ft. (15 m)
Outer Jacket Material:	None
Color:	Blue
Ground Path Type:	Braid
Min Installation Temperature:	0°F (-18°C)
Nominal Cable Weight:	0.64 oz./ft. (60 g/m)
Nominal Width:	0.25" (6.4 mm)
Nominal Thickness:	0.15" (3.8 mm)
Agency Approvals:	UL System Listed 60J9 Residential and Mobile/Manufactured Home Pipe Heating Cable File E85579



## FROSTEX HEATING CABLES

Frostex is the easy, cut-to-length, plug-and-play pipe freeze protection solution.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
FROSTEX-2102	777445-000	715629000026	100 ft. 120 V Frostex Heating Cable	PC	FI
FROSTEX-2250	702549-000	715629000033	250 ft. 120 V Frostex Heating Cable	PC	FI
FROSTEX-2502	628393-000	715629000828	500 ft. 120 V Frostex Heating Cable	PC	FI

## FROSTEX TRUCKPAKS

Frostex TruckPaks include 50 feet of Frostex Cable, two FlexFit Plug Kits, and one roll of Application Tape.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
FROSTEX-5050	591753-000	715629000040	Frostex TruckPak	PC	FI

## FROSTEX ACCESSORIES

Frostex Accessories ensure easy installation warranty coverage, agency approval, and electrical code compliance.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
FROSTEX-9800	382471-000	715629000934	Frostex FlexFit Plug Kit (includes End Seal)	PC	FI
FROSTEX-9610	608289-000	715629000088	Frostex Application Tape (66 ft.)	PC	FI

**NOTE:** Do not use more than 50 feet (15 meters) of heating cable per 9800 FlexFit Plug. If the total required length exceeds 50 feet (15 meters), additional 9800 FlexFit plugs and outlets are required.

## BENEFITS

- Self-regulating, cut-to-length cable
- Pipe freeze protection designed specifically for plumbing contractors and DIYers
- TruckPaks include everything required for two standard pipe freeze protection installations
- 3 W/ft output at @ 40°F (4°C)

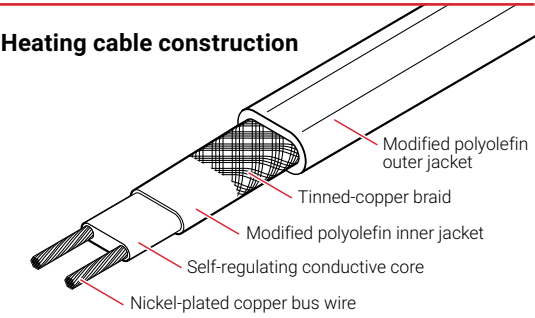


# FreezGard Crankcase Heaters

When compressors operate in cold temperatures, refrigerant can migrate into the crankcase oil whenever the motor is not running. This can cause excessive motor wear upon start up and a loss of refrigeration efficiency over time. nVent RAYCHEM FreezGard self-regulating crankcase heaters solve this problem with reliable heating during cold periods and, unlike conventional constant-wattage heaters, FreezGard reduces its output as the temperature rises when the compressor runs.

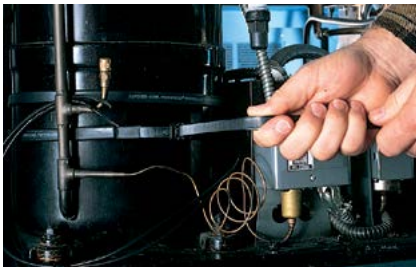
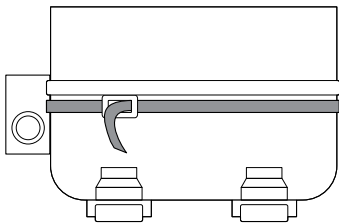
## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length



## SPECIFICATIONS

Nominal Voltage:	120 V (CCH-1C), 208 – 277 V (CCH-2C)
Nominal Output @ 50°F (10°C):	CCH-1C: 32 W @ 120 V CCH-2C: 32 W @ 208 V
Maximum Circuit Length:	n/a
Outer Jacket Material:	Modified Polyolefin
Color:	Black
Ground Path Type:	Braid
Max Exposure Temperature, Power On:	185°F (85°C)
Nominal Width:	0.61" (15.6 mm)
Nominal Thickness:	0.24" (6.2 mm)
Length:	4' (1.2 m)
Cold Lead Length:	2'4" (0.7 m)
Agency Approvals:	UL Recognized Component File SA5093 c CSA us Certified -G Usage



## FREEZGARD CRANKCASE HEATERS

FreezGard crankcase heaters feature 4 feet of self-regulating heating cable, a flexible lock-strap, and a pre-stripped 28-inch cold lead for easy power connection.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
CCH-1C	342903-000	715629000507	120 V FreezGard Crankcase Heater	PC	FI
CCH-2C	864811-000	715629000491	240 V FreezGard Crankcase Heater	PC	FI

## INSTALLATION

FreezGard crankcase heaters are intended for professional installation on refrigeration compressors up to 5 horsepower and 40 inches or less in circumference.

**NOTE:** Not for use on compressors that may exceed 150°F (66°C). Ground fault circuit breakers with a 30-mA trip level must be used.

## BENEFITS

- Pre-assembled self-regulating cable configured for easy application on common compressor crank case sizes
- Prevents premature motor wear and refrigerant loss
- 32 W output (minimum) at @ 50°F (10°C)



# ElectroMelt Heating Cables & Accessories

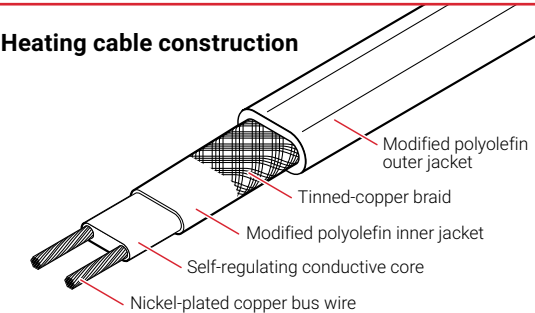
nVent RAYCHEM ElectroMelt provides surface snow melting (preventing the accumulation of snow) and anti-icing (keeping the surface temperature continually above freezing to prevent ice formation).

Specifically designed for direct burial in concrete, ElectroMelt heating cables are protected by a tinned-copper braid encased in a 70-mil modified polyolefin outer jacket. With no exposed metal parts to corrode, no cold leads to fail, and no burnout due to overlaps or hot spots, rugged ElectroMelt heating cable offers an ideal solution for all types of concrete pavement snow melting and anti-icing.



## SELF-REGULATING CABLE TECHNOLOGY

- Safe, efficient, and long lasting
- Output increases in colder temperatures and decreases in warmer temperatures
- Can be installed without concern for precise spacing or the cable overlapping itself
- Can be cut to length



## SPECIFICATIONS

Nominal Voltage:	208 V, 240 V & 277 V
Nominal Output @ 32°F (0°C):	208 V: 30 W/ft. (98 W/m) 240 V: 32 W/ft. (105 W/m) 277 V: 34 W/ft. (112 W/m)
Outer Jacket Material:	Modified polyolefin
Insulating Jacket Material:	Modified polyolefin
Color:	Orange
Ground Path Type:	Braid
Min Installation Temperature:	5°F (-15°C)
Max Exposure Temperature:	150°F (66°C)
Nominal Cable Weight:	180 lb./1000 ft. (268 kg/1000 m)
Nominal Width:	0.75" (19 mm)
Nominal Thickness:	0.38" (10 mm)
Minimum Bend Radius:	3" (76 mm)
Agency approvals:	UL System Listed 877Z De-Icing & Snow Melting Equip. File E74811 CSA Certified -W Usage File No. 021133_C_000



# ElectroMelt Heating Cables & Accessories

## MAXIMUM CIRCUIT LENGTH FOR STARTUP AT 20°F (-7°C) IN FEET (METERS)

CIRCUIT BREAKER (A)	HEATING CABLE SUPPLY VOLTAGE		
	208 V	240 V	277 V
15	80 (24)	85 (26)	100 (31)
20	105 (32)	115 (35)	130 (40)
30	160 (49)	170 (52)	195 (59)
40	210 (64)	230 (70)	260 (79)
50	265 (81)	285 (87)	325 (99)

## MAXIMUM CIRCUIT LENGTH FOR STARTUP AT 0°F (-18°C) IN FEET (METERS)

CIRCUIT BREAKER (A)	HEATING CABLE SUPPLY VOLTAGE		
	208 V	240 V	277 V
15	75 (23)	80 (24)	90 (27)
20	100 (31)	110 (34)	120 (37)
30	145 (44)	160 (49)	180 (55)
40	200 (61)	210 (64)	240 (73)
50	245 (75)	265 (81)	300 (91)

## ELECTROMELT CABLE

ElectroMelt Cable is priced per-foot.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
EM2-XR	449561-000	715629007049	208 - 277 V ElectroMelt Heating Cable	FT	FI

## ELECTROMELT ACCESSORIES

nVent RAYCHEM ElectroMelt accessories must be used with ElectroMelt heating cables. Refer to the Surface Snow Melting and Anti-Icing Design Guide – ElectroMelt (H53393) for proper accessory selection.

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
EMK-XJR	693647-000	715629007094	ElectroMelt Jacket Repair Kit	PC	FI
EMK-JB	P000004426	715629421111	ElectroMelt Junction Box	PC	FI
EMK-XCT	906441-000	715629007117	100pc ElectroMelt Nylon Cable Ties (7")	PAC	FI
EMK-XT	980631-000	715629007124	ElectroMelt Crimp Tool	PC	FI
SMCS	P000000659	715629007025	Snow Melting Caution Sign (6" x 4")	PC	FI
EMK-XC-USA	P000002361	715629420770	ElectroMelt Power Connection Kit (includes end seal)	PC	FI
EMK-XC-CAN	P000004433	715629421128	ElectroMelt Power Connection Kit (includes end seal)	PC	FI
EMK-XS	356667-000	715629007070	ElectroMelt Splice Kit	PC	FI
EMK-XEJ	472207-000	715629007087	ElectroMelt Expansion Joint Kit	PC	FI
EMK-XCJ	P000002362	715629420787	ElectroMelt Crack Control Joint Kit	PC	FI

**IMPORTANT:** ElectroMelt is not approved for use in asphalt.

## BENEFITS

- Self-regulating, cut-to-length cable
- Prevents the accumulation of snow and ice by keeping surface temperatures above freezing
- Durable construction designed for contact with concrete and rebar
- Can be used with 208 V, 240 V, and 277 V power
- A full range of accessories for enhanced performance and efficiency

# Thermostats & Controls

nVent provides a wide variety of control and monitoring products, from simple mechanical thermostats to sophisticated digital controllers and sensors designed specifically for use with nVent RAYCHEM heat tracing systems. nVent RAYCHEM control and monitoring products are compliant with the latest and most stringent agency standards, enabling safe and efficient operation.



## THERMOSTATS

nVent RAYCHEM thermostats ensure your pipe-freeze protection, snow melting, or roof and gutter de-icing system turns on an off automatically, improving efficiency of your system.

**Thermo Cube:** simple, plug-and-play outlet that automatically powers on at 35°F (1.7°C)

**AMC-F5:** mechanical thermostat offering ambient- and line-sensing with fixed setpoint of 40°F (4.4°C)

**AMC-1A:** mechanical thermostat offering ambient sensing with adjustable setpoint between 15°F (-9.4°C) and 140°F (60°C)

**EC-TS:** electronic thermostat for ambient-, pipe-, and slab-sensing with adjustable setpoint between 30°F (-1.1°C) and 110°F (43.3°C)

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
TC3	130972-000	715629002112	Thermo Cube Temperature-Controlled Outlet (on at 35°F)	PC	FI
AMC-F5	031661-000	715629005519	40°F Fixed Mechanical Thermostat (ambient- or line-sensing, 22 A)	PC	FI
AMC-1A	573977-000	715629007193	Adjustable Mechanical Thermostat (ambient-sensing, 15 - 140° F adj. setpoint, 22 A)	PC	FI
EC-TS	P000001115	715629007278	Adjustable Electronic Thermostat (ambient-, pipe-, slab-sensing, 30 - 110° F adj. setpoint, 30 A)	PC	FI

## SNOW CONTROLLERS

nVent RAYCHEM snow controllers enable efficient operation of snow-melting and roof and gutter de-icing systems.

**PD Pro:** energy-efficient automated control unit for snow melting and gutter de-icing applications; works with up to two snow/ice sensors (Snow Owl, GIT-1, SIT-6E – sold separately) to activate system when precipitation is present below 38°F (3.3°C)

**GF Pro:** same features as the PD Pro and also includes 30 mA ground fault equipment protection (GFEP)

**RCU-3 and RCU-4:** remote control devices that work with the PD PRO and GF PRO respectively

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
PD PRO	P000001508	715629007605	Automatic Snow & Ice Controller for Snow Owl, GIT-1, SIT-6E (30 A)	PC	FI
GF PRO	P000001509	715629007612	GFEP Automatic Snow & Ice Controller for Snow Owl, GIT-1, SIT-6E (30 A)	PC	FI
RCU-3	P000000883	715629007544	Remote Control for PD Pro	PC	FI
RCU-4	P000000884	715629007551	Remote Control for GF Pro	PC	MTO

# Thermostats & Controls



## SNOW SENSORS

nVent RAYCHEM snow sensors improve the efficiency of automatic surface snow melting/de-icing and roof and gutter de-icing systems by detecting the presence of moisture at ambient temperatures below 38°F (3.3°C).

**Snow Owl:** aerial snow sensor that works with the PD PRO or GF PRO

**GIT-1:** gutter snow and ice sensor that works with the PD PRO or GF PRO

**SIT-6E:** pavement-mounted snow and ice sensor that works with the PD PRO or GF PRO

CATALOG #	PART #	UPC	DESCRIPTION	UOM	INV. TYPE
Snow Owl Sensor	P000002358	715629420190	Snow Owl Sensor	PC	FI
GIT-1	126795-000	715629007582	38°F (3.3°C) Fixed Gutter De-Icing Snow Sensor (24 VAC)	PC	FI
SIT-6E	P000000112	715629007575	38°F (3.3°C) Fixed Pavement-Mounted Snow Sensor (24 VAC)	PC	FI



## BENEFITS

- Designed specifically for nVent RAYCHEM winter safety products to deliver enhanced safety, versatility, service life, and performance

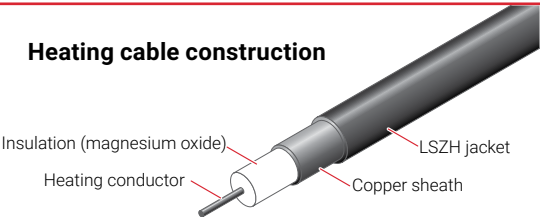
# In-Pipe Mini Freeze Protection Kits

nVent RAYCHEM In-Pipe Mini utilizes mineral insulated cable technology to deliver energy efficient in-pipe heating for potable water pipes between 14 and 34 feet (4.3 and 10.4 meters) in length. Each In-Pipe Mini kit includes a thermostat and a standard 110/120 V plug. In-Pipe Mini is designed for use with ½" to 1¼" polyethylene, CPVC, or copper pipes that are insulated with closed-cell foam and requires a GFCI-protected outlet for installation.

## MINERAL INSULATED CABLE TECHNOLOGY

- Magnesium oxide insulation sheathed in stainless steel
- Highly resistant to corrosion, extreme exposure temperatures, and hazardous environments

### Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V
Application:	Freeze protection of potable water pipes
Area Classification:	Nonhazardous
Pipe Type:	½" to 1¼" polyethylene, CPVC, copper
Cable Material:	Stainless steel sheathed mineral insulated cable
Ground Path Type:	Sheath
Outer Jacket Material:	None
Min Bend Radius:	1.5" (38 mm)
Thermostat:	5°F (-15°C)
Sensor type:	Built-in bimetallic thermostat
Setpoint:	45°F (7°C)
Sensor lead length:	6' (1.8 m)
Agency approvals:	c CSA us Certified Usages G, W, S, P, X (in Canada), Installation Type D (U.S.) (suitable for use in potable water) File No. 017568_0_000

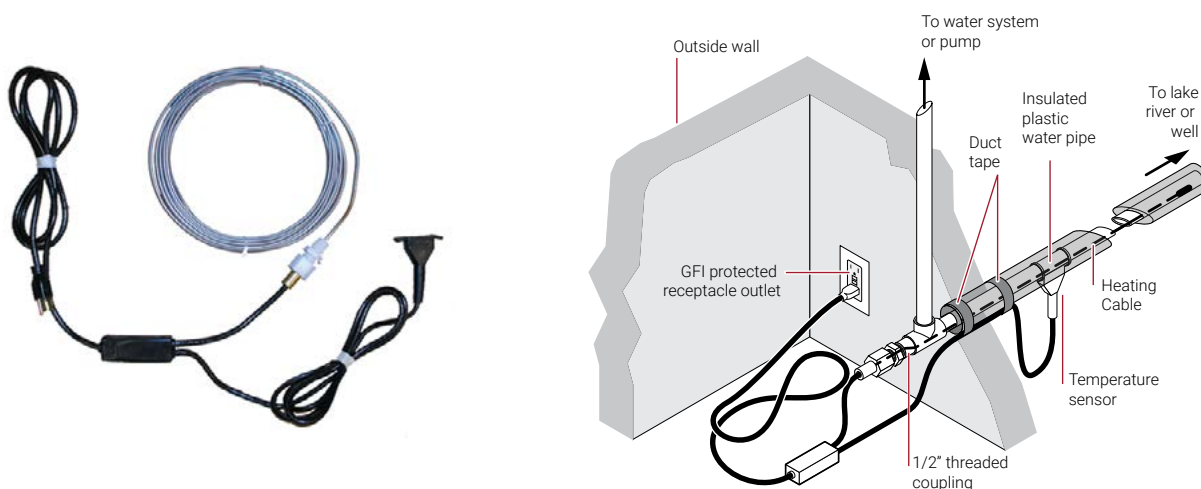
# In-Pipe Mini Freeze Protection Kits

## IN-PIPE MINI

Each In-Pipe Mini kit includes one heating cable, one thermostat, 120 V plug, one ½" threaded coupling, two 8" plastic tie wraps, and installation instructions (English and French).

CATALOG #	PART #	UPC	DESCRIPTION	WATTS	NOM. WEIGHT	UOM	INV. TYPE
MINI-120-14	MINI14	715629002297	14' (4.3 m)	56	2.2 lb. (1.0 kg)	PC	QF
MINI-120-18	MINI18	715629001634	18' (5.5 m)	70	2.4 lb. (1.1 kg)	PC	QF
MINI-120-22	MINI22	715629001641	22' (6.7 m)	85	2.5 lb. (1.1 kg)	PC	QF
MINI-120-26	MINI26	715629001658	26' (9.1 m)	95	2.7 lb. (1.2 kg)	PC	QF
MINI-120-30	MINI30	715629001665	30' (9.1 m)	120	3.1 lb. (1.4 kg)	PC	QF
MINI-120-34	MINI34	715629001672	34' (10.4 m)	130	3.5 lb. (1.6 kg)	PC	QF

## INSTALLATION



## BENEFITS

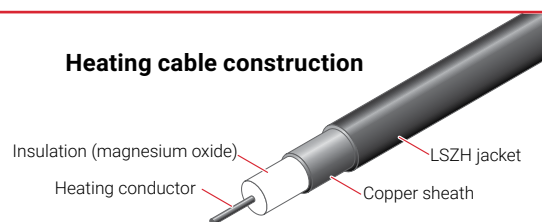
- Pre-assembled, plug-and-play kit with mineral insulated cable designed for potable water pipes
- Works with insulated pipes between 14 to 34 ft in length and between ½" to 1¼" in diameter
- Thermostat included

# In-Pipe Miser Freeze Protection Kits

nVent RAYCHEM In-Pipe Miser utilizes mineral insulated cable technology to deliver energy efficient in-pipe heating for potable water pipes between 14 and 250 feet (4.3 and 76.2 meters) in length. Each In-Pipe Miser kit includes a ground fault protected controller and a standard 110/120 V plug. In-Pipe Miser is designed for use with 1" and 1¼" polyethylene pipes that are insulated with closed-cell foam.

## MINERAL INSULATED CABLE TECHNOLOGY

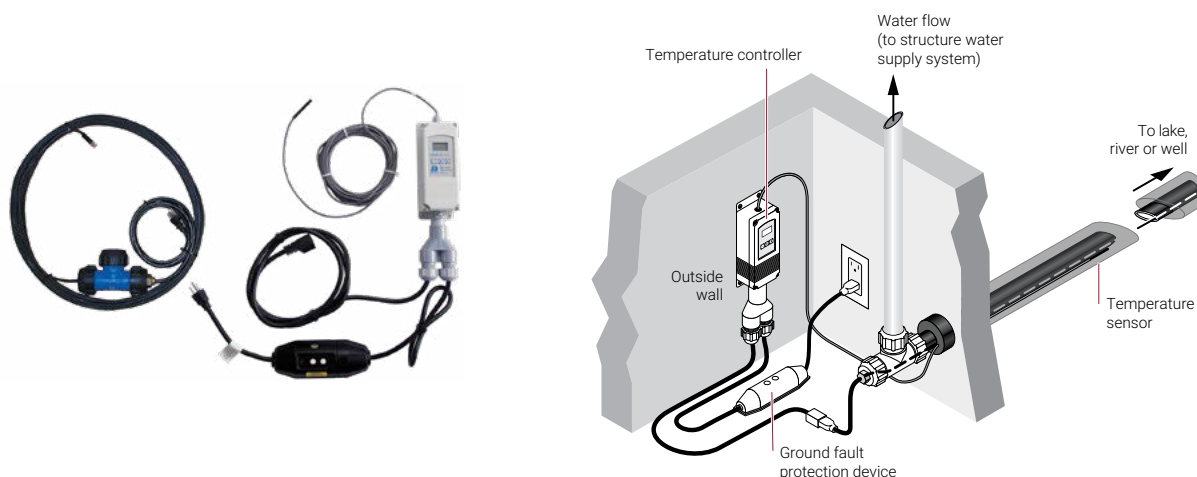
- Magnesium oxide insulation sheathed in stainless steel
- Highly resistant to corrosion, extreme exposure temperatures, and hazardous environments
- Extra-long circuit lengths available



## SPECIFICATIONS

Nominal Voltage:	120 V
Application:	Freeze protection of potable water pipes
Area Classification:	Nonhazardous
Pipe Type:	1" and 1¼" polyethylene as follows: <ul style="list-style-type: none"><li>• I.D. Series 75 &amp; 100 (PE 1404) (SIDR 9)</li><li>• I.D. Series 125 (PE 2306, 2406 or 3406 resin) (SIDR 11.5)</li><li>• I.D. Series 160 (PE 3408 resin) (SIDR 9)</li></ul>
Cable Material:	14'-60' (4.3 m - 18.3 m): Stainless steel sheathed mineral insulated cable 70'-240' (21.3 m - 73.2 m): Copper sheathed mineral insulated cable
Ground Path Type:	Sheath
Outer Jacket Material:	14'-60' (4.3 m - 18.3 m): None 70'-240' (21.3 m - 73.2 m): Polyethylene
Min Bend Radius:	2" (50 mm)
Electronic Controller Ratings:	SPDT, 120 Vac, 16 A
Temperature Range:	-30°F (-34°C) to 220°F (104°C)
Sensor lead length:	25' (7.6 m)
Agency approvals:	c CSA us Certified Usages G, W, S, P, X (in Canada), Installation Type D (U.S.) (suitable for use in potable water) File No. 017568_0_000

## INSTALLATION





# In-Pipe Miser Freeze Protection Kits

## IN-PIPE MISER

Each In-Pipe Miser kit includes one plug-in heating cable, one ground fault protected temperature controller with 25' lead wire and 120 V plug, 1¼" pipe adaptor parts, 1" pipe adaptor parts, one nut for plastic tee fitting, and installation instructions (English and French).

CATALOG #	PART #	UPC	DESCRIPTION	WATTS	NOM. WEIGHT	UOM	INV. TYPE
MISER-120-14	MWG14	715629004451	14' (4.3 m)	56	9.0 lb. (4.1 kg)	PC	QF
MISER-120-18	MWG18	715629004468	18' (5.5 m)	70	9.5 lb. (4.3 kg)	PC	QF
MISER-120-22	MWG22	715629004475	22' (6.7 m)	85	9.5 lb. (4.3 kg)	PC	QF
MISER-120-26	MWG26	715629004482	26' (7.9 m)	95	9.5 lb. (4.3 kg)	PC	QF
MISER-120-30	MWG30	715629004499	30' (9.1 m)	120	9.5 lb. (4.3 kg)	PC	QF
MISER-120-34	MWG34	715629004505	34' (10.4 m)	130	10.0 lb. (4.5 kg)	PC	QF
MISER-120-40	MWG40	715629001689	40' (12.2 m)	180	12.0 lb. (5.4 kg)	PC	QF
MISER-120-50	MWG50	715629001696	50' (15.2 m)	205	12.0 lb. (5.4 kg)	PC	QF
MISER-120-60	MWG60	715629001702	60' (18.3 m)	240	14.0 lb. (6.4 kg)	PC	QF
MISER-120-70	MWG70	715629001719	70' (21.3 m)	260	12.0 lb. (5.4 kg)	PC	QF
MISER-120-80	MWG80	715629001726	80' (24.4 m)	300	13.0 lb. (5.9 kg)	PC	QF
MISER-120-90	MWG90	715629001733	90' (27.4 m)	400	14.5 lb. (6.6 kg)	PC	QF
MISER-120-100	MWG100	715629001740	100' (30.5 m)	360	15.0 lb. (6.8 kg)	PC	QF
MISER-120-110	MWG110	715629001757	110' (33.5 m)	435	17.0 lb. (7.7 kg)	PC	QF
MISER-120-120	MWG120	715629001764	120' (36.6 m)	600	16.0 lb. (7.3 kg)	PC	QF
MISER-120-130	MWG130	715629001771	130' (39.6 m)	555	17.0 lb. (7.7 kg)	PC	QF
MISER-120-140	MWG140	715629001788	140' (42.7 m)	515	18.0 lb. (8.2 kg)	PC	QF
MISER-120-150	MWG150	715629001795	150' (45.7 m)	770	24.0 lb. (10.9 kg)	PC	QF
MISER-120-160	MWG160	715629001801	160' (48.8 m)	720	23.0 lb. (10.4 kg)	PC	QF
MISER-120-170	MWG170	715629001818	170' (51.8 m)	680	24.5 lb. (11.1 kg)	PC	QF
MISER-120-180	MWG180	715629001825	180' (54.9 m)	800	26.0 lb. (11.8 kg)	PC	QF
MISER-120-190	MWG190	715629001832	190' (57.9 m)	760	28.0 lb. (12.7 kg)	PC	QF
MISER-120-200	MWG200	715629001849	200' (61 m)	1030	32.0 lb. (14.5 kg)	PC	QF
MISER-120-210	MWG210	715629001856	210' (64 m)	980	30.0 lb. (13.6 kg)	PC	QF
MISER-120-220	MWG220	715629001863	220' (67.1 m)	935	31.0 lb. (14.1 kg)	PC	QF
MISER-120-230	MWG230	715629001870	230' (70.1 m)	895	34.0 lb. (15.4 kg)	PC	QF
MISER-120-240	MWG240	715629001887	240' (73.2 m)	860	36.0 lb. (16.3 kg)	PC	QF

## BENEFITS

- Pre-assembled, plug-and-play kit with mineral insulated cable designed for potable water pipes
- Works with insulated pipes between 14 to 250 ft in length and between 1" to 1¼" in diameter
- Ground fault protected controller included

# In-Pipe Retro Freeze Protection Kits

nVent RAYCHEM In-Pipe Retro is a high-wattage pipe freeze protection system for uninsulated 1" to 1¼" polyethylene potable water pipes. Utilizing a heavy-duty heating cable, it provides energy efficient in-pipe heating for pipes between 40 and 250 feet. (12.2 and 76.2 meters) in length. Designed for uninsulated 1" and 1-1/4" polyethylene pipes. Available in 120 V and 240 V options, with ground fault protected electronic controller included.

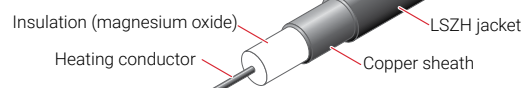
In-Pipe Retro is available in 120 V (40 – 150 ft.) or 240 V (160 – 250 ft.) configurations. 120 V versions include a standard plug and 240 V versions are prepared for termination in a junction box. Each kit includes a ground fault protected electronic controller.



## MINERAL INSULATED CABLE TECHNOLOGY

- Magnesium oxide insulation sheathed in stainless steel
- Highly resistant to corrosion, extreme exposure temperatures, and hazardous environments
- Extra-long circuit lengths available

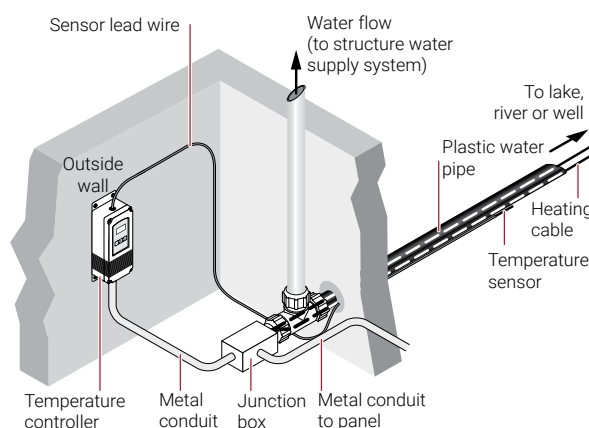
### Heating cable construction



## SPECIFICATIONS

Nominal Voltage:	120 V, 208 V to 240 V
Application:	Freeze protection of potable water pipes
Area Classification:	Nonhazardous
Pipe Type:	1" and 1¼" polyethylene as follows: <ul style="list-style-type: none"><li>• I.D. Series 75 &amp; 100 (PE 1404) (SIDR 9)</li><li>• I.D. Series 125 (PE 2306, 2406 or 3406 resin) (SIDR 11.5)</li><li>• I.D. Series 160 (PE 3408 resin) (SIDR 9)</li></ul>
Cable Material:	Polymer jacketed copper sheathed mineral insulated cable
Ground Path Type:	Sheath
Outer Jacket Material:	Polyethylene
Min Bend Radius:	2" (50 mm)
Electronic Controller Ratings:	SPDT, 120 Vac, 16 A SPDT, 240 Vac, 8 A
Electronic Controller Temp Range:	-30°F (-34°C) to 220°F (104°C)
Sensor lead length:	25' (7.6 m)
Agency approvals:	c CSA us Certified Usages G, W, S, P, X (in Canada), Installation Type D (U.S.) (suitable for use in potable water) File No. 017568_0_000

## INSTALLATION





# In-Pipe Retro Freeze Protection Kits

## IN-PIPE RETRO




















Each In-Pipe Retro kit includes one ground fault protected temperature controller with 25' sensor lead wire, two 1¼" pipe adaptor parts, two 1" pipe adaptor parts, one nut for plastic tee fitting, one heating cable with plastic tee fitting, and installation instructions (English and French).

CATALOG #	PART #	UPC	DESCRIPTION	WATTS	NOM. WEIGHT	UOM	INV. TYPE
RETRO-120-40	RWG40	715629001894	40' (12.2 m) 120 V	295	12.0 lb. (5.4 kg)	PC	QF
RETRO-120-50	RWG50	715629001900	50' (15.2 m) 120 V	370	14.0 lb. (6.4 kg)	PC	QF
RETRO-120-60	RWG60	715629001917	60' (18.3 m) 120 V	400	14.0 lb. (6.4 kg)	PC	QF
RETRO-120-70	RWG70	715629001924	70' (21.3 m) 120 V	515	15.0 lb. (6.8 kg)	PC	QF
RETRO-120-80	RWG801LV	715629004512	80' (24.4 m) 120 V	600	18.5 lb. (8.4 kg)	PC	QF
RETRO-120-90	RWG901LV	715629004529	90' (27.4 m) 120 V	530	19.5 lb. (18.8 kg)	PC	QF
RETRO-120-100	RWG1001LV	715629004536	100' (30.5 m) 120 V	685	20.0 lb. (9.1 kg)	PC	QF
RETRO-120-110	RWG1101LV	715629004543	110' (33.5 m) 120 V	820	22.5 lb. (10.2 kg)	PC	QF
RETRO-120-120	RWG1201LV	715629004550	120' (36.6 m) 120 V	750	23.5 lb. (10.7 kg)	PC	QF
RETRO-120-130	RWG1301LV	715629004567	130' (39.6 m) 120 V	925	25.5 lb. (11.6 kg)	PC	QF
RETRO-120-140	RWG1401LV	715629004574	140' (42.7 m) 120 V	860	27.0 lb. (12.2 kg)	PC	QF
RETRO-120-150	RWG1501LV	715629004581	150' (45.7 m) 120 V	1200	29.0 lb. (13.2 kg)	PC	QF
RETRO-240-160	RWG160	715629002013	160' (48.8 m) 240 V	1200	27.0 lb. (12.2 kg)	PC	QF
RETRO-240-170	RWG170	715629002020	170' (51.8 m) 240 V	1130	28.0 lb. (12.7 kg)	PC	QF
RETRO-240-180	RWG180	715629002037	180' (54.9 m) 240 V	1070	29.0 lb. (13.2 kg)	PC	QF
RETRO-240-190	RWG190	715629002044	190' (57.9 m) 240 V	1440	30.0 lb. (13.6 kg)	PC	QF
RETRO-240-200	RWG200	715629002051	200' (61 m) 240 V	1370	32.0 lb. (14.5 kg)	PC	QF
RETRO-240-210	RWG210	715629002068	210' (64 m) 240 V	1310	33.0 lb. (15.0 kg)	PC	QF
RETRO-240-220	RWG220	715629002075	220' (67.1 m) 240 V	1635	36.0 lb. (16.3 kg)	PC	QF
RETRO-240-230	RWG230	715629002082	230' (70.1 m) 240 V	1565	37.0 lb. (16.8 kg)	PC	QF
RETRO-240-240	RWG240	715629002099	240' (73.2 m) 240 V	1500	39.0 lb. (17.7 kg)	PC	QF
RETRO-240-250	RWG250	715629002105	250' (76.2 m) 240 V	1920	41.0 lb. (18.6 kg)	PC	QF

**Note:** Custom lengths up to 500 feet (152.4 meters) are available. Contact your nVent RAYCHEM representative or call (800) 545-6258.

## BENEFITS

- Pre-assembled kit with mineral insulated cable designed for potable water pipes
- Ideal for existing, buried water supply lines running from lakes, rivers, or wells
- Works with uninsulated pipes between 40 to 250ft in length and between 1" to 1¼" in diameter
- 120 V versions (40 – 150 ft) include a standard plug
- 240 V versions (160 – 250 ft) are prepared for termination in a junction box
- Ground fault protected controller included

		AREA		APPLICATION				
		DRY	WET	PIPE	PIPE	PIPE	ROOF	SURFACE SNOW MELT
SELECT THE RIGHT PRODUCTS				 2" diameter or below	 Up to 2 1/2" diameter	 Up to 6" diameter	 Up to 4" gutter with 1 run Up to 6" gutter with 2 runs	
<b>WINTERGARD</b>		120 V; 3 W/ft @ 40°F						
<b>Description</b>	<b>Catalog #</b>		•	•				
100' TruckPak*	H311100							
250' Reel	H311250							
<b>WINTERGARD PLUS</b>		120 V; 6 W/ft @ 40°F						
<b>Description</b>	<b>Catalog #</b>		•	•	•	•		
50' Box	H611050							
100' TruckPak*	H611100							
250' Reel	H611250							
<b>Description</b>	<b>Catalog #</b>	240 V; 6 W/ft @ 40°F						
50' Box	H621050		•	•	•	•		
100' TruckPak*	H621100							
250' Reel	H621250							
<b>WINTERGARD WET</b>		120 V; 6 W/ft @ 40°F						
<b>Description</b>	<b>Catalog #</b>		•	•	•	•	•	
50' Box	H612050							
100' TruckPak*	H612100							
250' Reel	H612250							
500' Reel	H612500							
1000' Reel	H6121000							
<b>Description</b>	<b>Catalog #</b>	240 V; 6 W/ft @ 40°F						
50' Box	H622050		•	•	•	•	•	
100' TruckPak*	H622100							
250' Reel	H622250							
500' Reel	H622500							
1000' Reel	H6221000							
<b>FROSTGUARD PREASSEMBLED</b>		120 V; 6 W/ft @ 40°F						
<b>Description</b>	<b>Catalog #</b>		•	•	•	•	•	
6' Length	FG1-6P							
12' Length	FG1-12P							
18' Length	FG1-18P							
24' Length	FG1-24P							
36' Length	FG1-36P							
50' Length	FG1-50P							
75' Length	FG1-75P							
100' Length	FG1-100P							
<b>Description</b>	<b>Catalog #</b>	240 V; 6 W/ft @ 40°F						
6' Length	FG2-6L		•	•	•	•		
12' Length	FG2-12L							
18' Length	FG2-18L							
24' Length	FG2-24L							
<b>FROSTEX</b>		120 V; 3 W/ft @ 50°F						
<b>Description</b>	<b>Catalog #</b>		•	•				
50' TruckPak	5050							
100' Reel	2102							
250' Reel	2250							
500' Reel	2502							
<b>IN-PIPE</b>		120 V						
<b>Description</b>	<b>Catalog #</b>			•	•			
Mini 14' - 34'	see price list							
Miser 14' - 240'	see price list							
Retro 40' - 150'	see price list							
<b>Description</b>	<b>Catalog #</b>	240 V						
Retro 160' - 250'	see price list		•	•	•			
<b>ELECTROMELT</b>		208 - 277 V						
See price list for the multitude of SKUs depending upon project needs				•				•
<b>MI</b>		120 - 600 V						
See price list for the multitude of SKUs depending upon project needs				•				•

\*WinterGard TruckPaks contains 100 feet of heating cable, two H900 Hardwire Power Connection Kits, one H910 Splice or Tee Kit, and one H903 roll of Application Tape.

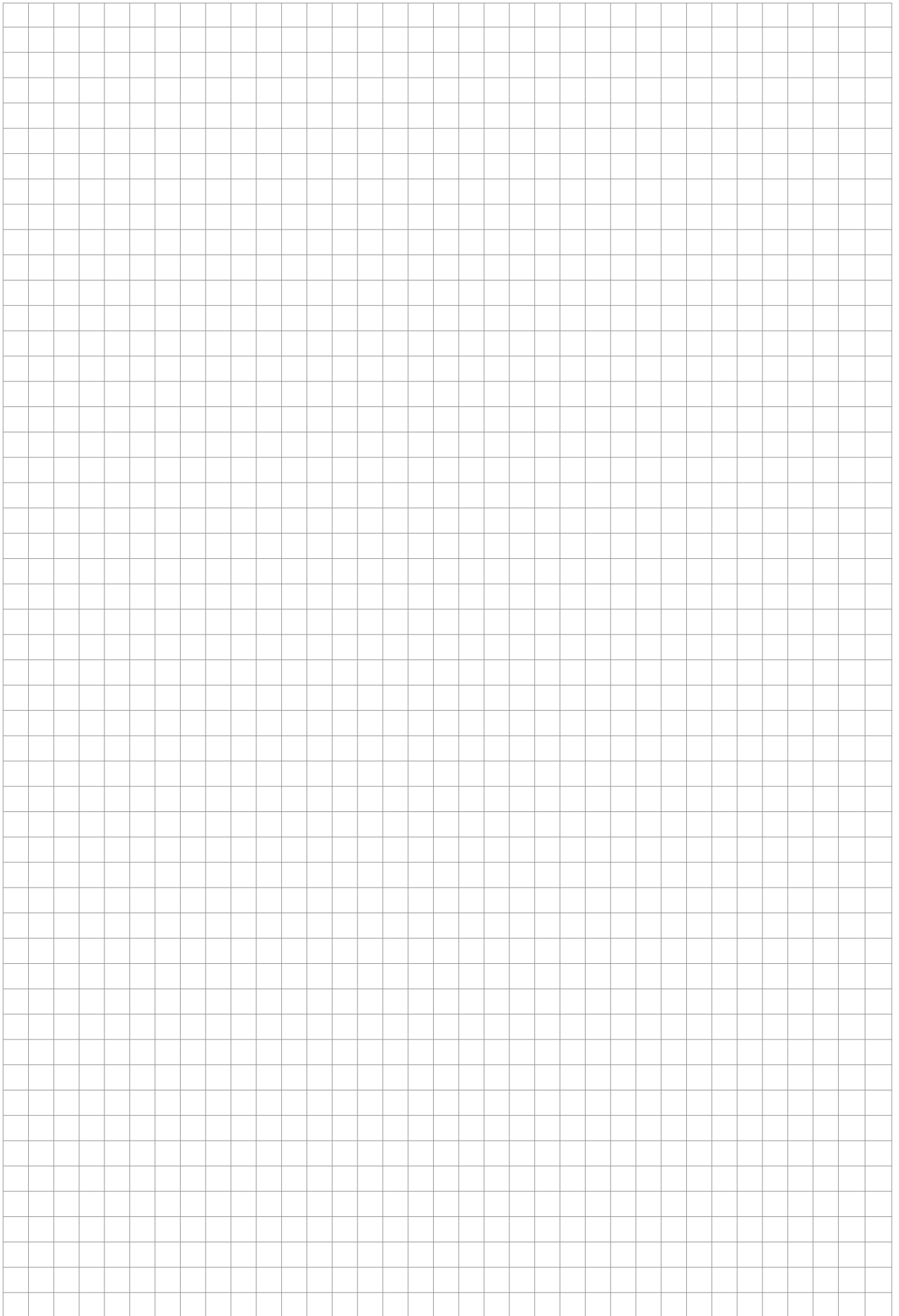
\*\*Although these can work with Roof & Gutter applications, they are ambient-sensing only. The PD-Pro & GF-Pro are more ideal because they work with snow and gutter sensors.

# Product Chart



ACCESSORIES										CONTROLLERS AND SENSORS											
9800-FLEXFIT PLUG	9610 APPLICATION TAPE	H900 - POWER CONNECTION	H903 - APPLICATION TAPE	H908 - PLUG-IN CORD W/ GFI	H910 - SPLICE & TEE	H912 - GEL-FILLED END SEAL	H913 - ROOF CLIPS (10)	H914 - ROOF CLIPS (50)	H915 - DOWNPOUTHANGER	EMK FITTINGS	PIPE**	PIPE**	PIPE**	PIPE**	R&G, SM	R&G, SM	R&G, SM	R&G, SM	R&G	SM	
											TC-3 • Ambient sensing; • Fixed 35°F set point • 15 Amp	AMC-F5 • Ambient or line sensing • Fixed set point 40°F • 22 A at 125/250/480 V	AMC-1A • Ambient sensing • Adjustable set point 15°F to 140°F • 22 A at 125/250/480 V	EC-TS • Ambient sensing; • Adjustable set point 30°F to 110°F • 30 A at 100 277 V	LC D-8 • Snow Switch; operates at temperatures below 38°F • 16 A @ 100 - 240 V	PD-PRO • Snow and ice controller • Single circuit; 120 V • Works with up to 2 sensors	GF-PRO • Snow and ice controller • Single circuit; 30 mA GFEP • Works with up to 2 sensors	SNOW OWL • Aerial snow sensor	GIT-1 • Gutter sensor	SIT-6E • Pavement sensor	
		•	•	•	•	•					•w H900	•w H900	•w H900								
		•	•	•	•	•					•w H900	•w H900	•w H900								
		•	•		•	•					•w H900	•w H900	•w H900								
		•	•	•	•	•	•	•	•		•w H900	•w H900	•w H900	•w H900	•w H900	•w H900	•w H900	•	•		
		•	•	•	•	•	•	•	•		•w H900	•w H900	•w H900	•w H900	•w H900	•w H900	•w H900	•	•		
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Pipe - Pipe Freeze Protection; R&G = Roof & Gutter De-Icing; SM = Surface Snow Melting.





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