



CONNECT AND PROTECT

COMMERCIAL HEAT TRACING

Products and services


nvent

RAYCHEM



NVENT

We provide quality solutions for winter safety, comfort and performance to building and infrastructure design, construction, operation and maintenance professionals. From pipe freeze protection to maintaining

fluid temperatures and melting snow, detecting leaks or heating floors, you can rely on nVent RAYCHEM solutions and services for greater safety, comfort and performance.

THE HEART OF OUR SOLUTIONS

As the inventor of self-regulating heat tracing in 1970, the nVent RAYCHEM brand is recognized for technical leadership in the industries we serve. The cable delivers the right amount of heat exactly when and where it is needed. As the temperature drops, more heat is produced. Conversely, as the temperature rises, less heat is produced. But there are many more benefits:

- The smart cables can be overlapped without any risk of overheating.
- The heating cables can be cut to length 'in the field'. This means additional flexibility when plans do not correspond to the "real life" situation on site.

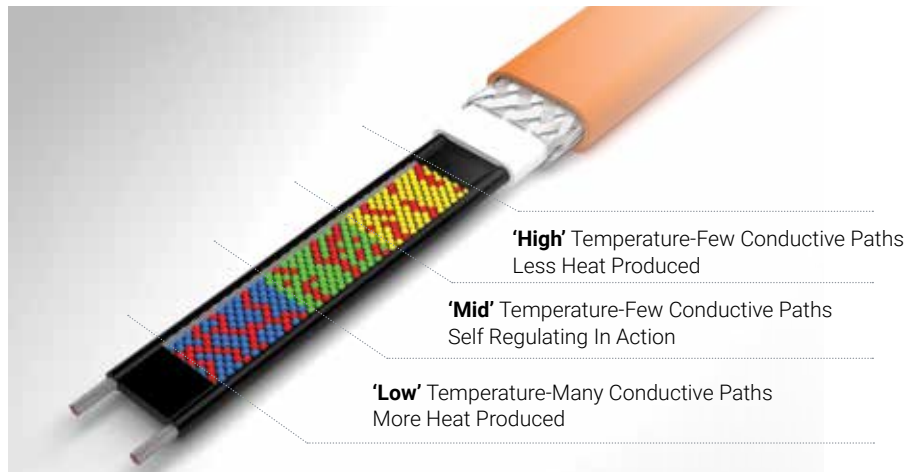
Our mineral insulated heating cables and wiring have led the industry for more than 75 years. Able to withstand extreme, harsh environments, our cables provide the most reliable heat tracing solution for high-temperature applications.



SELF-REGULATING TECHNOLOGY – RIGHT AMOUNT OF HEAT

At higher temperatures, the polymer expands, reducing the number of electrical paths thereby reducing the power output of the cable. At low temperatures, there are many conductive paths, allowing higher level of current to flow between the bus wires.

Producing the 'right amount of heat' saves you money with no wasted energy.



TESTED AND QUALIFIED

- nVent RAYCHEM's range of heating systems are tested to the most stringent industry standards to ensure maximum reliability and performance for our customers.



ROBUST CONSTRUCTION

- Long service life assured through modified polyolefin or fluoropolymer insulation and jacket materials.

LIFE EXPECTANCY

- Extensive scientific testing and field history prove that when properly installed and maintained, the self-regulating cables are expected to work for many decades.

It's More Than a Cable!

The combination of a self-regulating heating cable and **smart control** system allows for dynamic management of the heating cable's power output dependent on parameters such as ambient temperature and moisture. These will help you comply with today's building regulations on energy savings. A complete nVent RAYCHEM system can result in energy savings of up to 80%!

Additionally, nVent RAYCHEM **connection systems** have been designed and configured to be fully compatible with our heating cables. The nVent RAYCHEM RayClic connection system cuts installation time by 80%.



CUSTOMER SERVICE AND TECHNICAL SUPPORT TEAMS

nVent RAYCHEM offers a set of tools and services that aim to simplify the professional's life. Not only do we offer the best quality products, we also support them with unrivalled services.

- Customer service agents to answer your questions
- Fast order handling & shipment
- Free documentation service
- "On demand" technical advice



- Designs and quotations
- Direct support to specifiers and installers
- Training support upon request
- Complete after-sale service
- For non-standard applications, our team can assist you in finding the right heating solution
Call 1-800-545-6258

BEST PRODUCT SELECTION, DESIGN TOOLS AND PROJECT SERVICES EXPERTS

nVent RAYCHEM offers the widest range of heat tracing products for safety, comfort, and performance applications for commercial construction. To compliment this, we offer a full-suite of intuitive designer tools to make it easy to create optimal heat-trace designs for your specific applications (see pg 22).

Most importantly, we are the heat-trace experts and the leading full-service integrator for heat management systems. Our Project Services team partners with you to address all types of projects, from buildings to complex infrastructure, to optimize solutions that enhance safety, comfort and performance.



Pipe Freeze Protection



Flow Maintenance



Roof & Gutter De-Icing



Surface Snow Melting



Freezer Frost Heave Prevention



Floor Heating



Hot Water Temperature Maintenance



Project Services

Protect Pipes



Unprotected pipes

Water lines and fire protection lines can freeze and burst when exposed to cold temperatures. Our systems help you prevent this.

PIPE FREEZE PROTECTION OF WATER LINES

nVent RAYCHEM pipe freeze protection systems are flexible and easy to attach to the exterior of the pipe to keep pipes from freezing, bursting, and causing water damage. nVent RAYCHEM XL-Trace systems can add a precise level of heat to prevent water pipes from freezing.



XL-Trace System



PIPE FREEZE PROTECTION OF FIRE PROTECTION LINES

XL-Trace fire sprinkler freeze protection systems can freeze protect aboveground and buried supply pipes, fire standpipes, branch lines and branch lines containing sprinklers when run in areas subject to freezing. XL-Trace is c-CSA-us Certified for use on fire suppression systems under CSA C22.2 No. 130- 03 for Canada and IEEE 515.1-2005 for the US.



Flow in grease waste and fuel oil lines is hindered when pipes get below the temperature at which the viscosity inhibits fluid flow. Our systems help you protect pipes.

GREASE WASTE FLOW MAINTENANCE

XL-Trace grease waste flow maintenance systems is designed to maintain a 110°F (43°C) fluid temperature to keep the Fat, Oil, Grease mixture (FOG) in suspension from the kitchen to the grease interceptor. By maintaining flow in even the most demanding commercial kitchens, this system can reduce costs associated with maintenance and down-time.



Unprotected pipes



XL-Trace System

FUEL OIL MAINTENANCE

XL-Trace fuel oil flow maintenance systems can maintain #2 fuel oil lines above the temperature at which the viscosity inhibits fluid flow.



Protect Roofs, Gutters & Windows

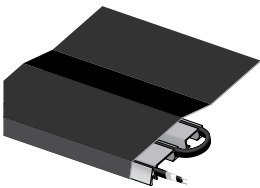


Unprotected roof and gutters

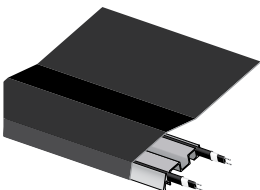
Ice dams can form on roofs, in gutters, and downspouts preventing water from properly draining which can result in water damage. Heavy icicles can fall and cause serious injury. Standing water can leak through to interior walls and furnishings. Our systems help you protect roofs, gutters, and downspouts.

ROOF & GUTTER DE-ICING – RIM

nVent RAYCHEM's Roof Ice Melt (RIM) system is the premier, highest performing, aesthetically elegant roof & gutter de-icing solution ideal for new construction or renovation of residential or commercial buildings. The system consists of metallic panels that embed self-regulating heat tracing cable to provide high power output. RIM system with 3 runs of cable is ideal for heavy snow load areas. RIM2 system with 2 runs of cable is ideal for light to moderate snow load areas.



RIM System



RIM2 System



ROOF & GUTTER DE-ICING – ICESTOP

nVent RAYCHEM IceStop is an advanced, high performing, specified roof & gutter de-icing solution ideal for commercial buildings in light to heavy snow load areas. It can be cut to length for easy installation in plastic, copper, steel, or aluminum gutters, and on flat or pitched roofs, valleys and overhangs. The low operating temperature of the heating cable also makes it safe for use on modern membrane roofs.



IceStop System



Ice dams can also form on and around roof drains preventing water from properly draining which can result in water damage. Window condensation can result in a build up of mold/mildew, causing health hazards and potential damage to the delicate artifacts, like those found in libraries and museums. Our systems help you protect roof drains and windows.

RIM DRAINTRACE

nVent RAYCHEM RIM-DrainTrace (RIM-DT) is a complete solution to trace roof drains. It includes IceStop heating cable, connection kits and pre-cut RIM panels for a fast, reliable, and elegant system to keep your roof drain free of snow and ice.



RIM-DrainTrace

WINDOW MULLION HEATING

nVent RAYCHEM Window Mullion Heating (WMH) is a complete heating solution designed to be installed in window frames. The system utilizes high wattage self-regulating cable installed in an engineered aluminum tray assembly offering efficient, high performance heat that keeps your windows free of frost and moisture.



Window Mullion Heating

Protect Surfaces



Unprotected surfaces

When snow and ice accumulates on outdoor concrete and asphalt surfaces, they can become slippery, unusable, and unsafe for people and vehicles.

Proven, reliable, and efficient, our snow melting systems keep sidewalks, stairways, driveways, parking garage ramps, loading docks, store entryways, and other areas free of snow and ice during even the worst weather conditions.

SURFACE SNOW MELTING – ELECTROMELT

The nVent RAYCHEM ElectroMelt system for concrete surfaces incorporates a rugged cut-to-length self-regulating heating cable that reduces heat output automatically as the pavement warms. It is ideal as an off-the-shelf solution and for smaller areas.



ElectroMelt System



ElectroMelt System

SURFACE SNOW MELTING – MI

The nVent RAYCHEM MI system for concrete, asphalt, and pavers, incorporates a rugged copper mineral insulated cable protected by a low smoke zero halogen (LSZH) outer jacket that provides constant power output. It offers higher voltages, high output, and 3-phase power, making it ideal for large areas.



MI System



MI System

When snow and ice accumulates on paved or suspended surfaces, like stairs, walkways and catwalks, they become unsafe for people. Safety becomes even more of a concern when these unsafe conditions affect critical access areas such as evacuation routes, ADA accessibility, and so on. Our systems help you protect surfaces.

PEDESTAL MOUNTED HEATING

nVent RAYCHEM Pedestal Mounted Paver Heating (PMPH) is a complete snow melting solution designed to be installed under the pedestal mounted pavers. The system utilizes high wattage self-regulating cable installed in an engineered aluminum tray assembly offering efficient, high performance snow melting that keeps your pedestal mounted pavers free of snow and ice.



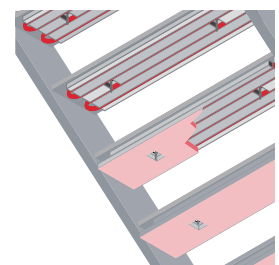
Pedestal Mounted Heating

SMART TIP
 Contact us at
1-800-545-6258

Our Project Services team can assist you with cable layout design for your requirements.

SUSPENSION MOUNTED HEATING

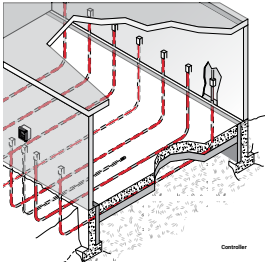
nVent RAYCHEM Suspension Mounted Heating (SMH) is a complete snow melting solution designed to be installed under suspended metal surfaces such as stairs, walkways and catwalks. The system utilizes high wattage self-regulating cable installed in an engineered aluminum tray assembly offering efficient, high performance snow melting that keeps your suspended surfaces free of snow and ice.



Suspension Mounted Heating

Protect Freezers

Inside cold rooms and freezers, subfreezing temperatures cause heat to be lost from the soil under the floor. As the soil freezes, capillary action draws water into the frozen areas where the water forms a concentrated ice mass. As the ice mass grows, it heaves the freezer floor and columns, causing damage. Our freezer frost heave prevention systems can prevent this problem.



Freezer frost heave example



RaySol System

FREEZER FROST HEAVE PREVENTION - RAYSOL

nVent RAYCHEM RaySol cut-to-length self-regulating heating cables provide long circuit lengths, higher heat output, and are durable enough to be embedded in concrete, making it ideal to prevent heaving in soil under freezers, refrigerated warehouses, and cold rooms. RaySol is ideal for smaller areas.



FREEZER FROST HEAVE PREVENTION - MI

nVent RAYCHEM LSZH jacketed copper sheathed heating cables provide higher voltages, high output, 3-phase power, small profile, and are durable enough to be embedded in concrete, making it ideal in preventing heaving in soil under freezers, refrigerated warehouses, and cold rooms. MI is ideal for larger areas.



MI System

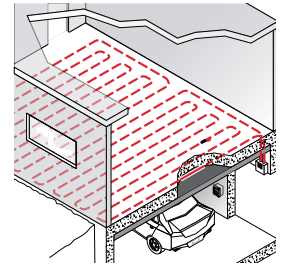


Replace Heat Loss

Floors over non-heated areas such as garages, or loading docks lose heat through the floor insulation over a cold space. Our heat loss solutions can prevent this problem.

HEAT LOSS REPLACEMENT - RAYSOL

RaySol cut-to-length self-regulating heating cables provide long circuit lengths, higher output, and are durable enough to be embedded in concrete, making it ideal to eliminate the chill felt from the heat lost through floors over non-heated areas such as skywalks, cantilevered roofs, garages, or loading docks. Also works as a radiant space heating solution. RaySol is ideal for smaller areas.



Heat loss replacement example



RaySol System



HEAT LOSS REPLACEMENT - MI

RAYCHEM LSZH jacketed copper sheathed heating cables provide higher voltages, high output, 3-phase power, small profile, and are durable enough to be embedded in concrete, making it ideal to eliminate the chill felt from the heat lost through floors over non-heated areas such as skywalks, cantilevered roofs, garages, or loading docks. Also works as a radiant space heating solution. MI is ideal for larger areas.



MI System



Enjoy The Comfort You Deserve

FLOOR HEATING

nVent NUHEAT electric floor heating systems are an ideal room-specific heat source option for both new construction or renovation projects. These easy-to-install systems can be used under tile, stone, laminate and engineered wood floors.



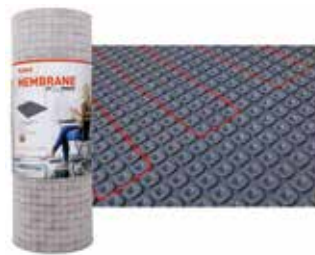
NVENT NUHEAT CUSTOM & STANDARD MAT SYSTEMS

Pre-built like an electric blanket, mats are available in standard sizes or can be custom built to precisely fit any room with curves or angles. It is the easiest and quickest system to install. Custom mats can be manufactured in 3 days. Standard mats are available in over 70 standard off-the-shelf square and rectangular sizes. Voltage: 120 V or 240 V



NVENT NUHEAT CABLE SYSTEM

Offering the ultimate in installation flexibility, the cable system is perfect where on-site adjustments are required. Coupled with newly redesigned cable guides and a low-profile cold lead, adding heated floors to your renovation or new construction project has never been easier. Over 30 kit sizes; largest 120 V covers 120 sq ft and largest 240 V covers 240 sq ft.



NVENT NUHEAT MEMBRANE

Membrane by Progress Profiles is a tile underlayment and uncoupling system that is specifically designed to embed and hold the industry-leading cable floor heating system. The low profile of the membrane reduces the stress caused by differential movement between the tile layer and the substrate which can lead to tile cracking. Flexible cable spacing and wattage output of 10, 12, or 15 watts per sq ft makes it suitable for comfort heating or primary heat source applications.



NVENT NUHEAT MESH SYSTEM

The mesh system consists of heating cable woven into an adhesive-backed fiberglass mesh with patented mesh bands to hold the heating cable in place. The modifiable solution is simple to roll-out and can be customized on the job site to fit any room shape. Standard off-the-shelf mesh available in 13 sizes for 120 V, and 19 sizes for 208/240 V.



nVent NUHEAT Electric Floor Heating Systems offer an entirely maintenance-free heating alternative—with no cold spots. Industry leading 25-year Total Care warranty applies. See nuheat.com for more information.



Enjoy Instant Hot Water

Conventional recirculation systems in large commercial buildings can lead to high energy costs and wasted water. nVent RAYCHEM's systems offer a smart alternative for meeting plumbing code that saves water and energy.

HOT WATER TEMPERATURE MAINTENANCE

nVent RAYCHEM's Hot Water Temperature Maintenance (HWAT) system is a better way to meet Plumbing Code that saves water, energy, and can be used in concert with, or instead of, conventional designs. It is a simple, smart performance alternative to complex recirculation systems.

HWAT heating cables are attached to hot-water supply pipes to compensate for heat loss and maintain hot water temperature throughout the building, while eliminating the need for return piping and associated equipment.

This simplified design improves performance, reduces installation costs, and takes up less building space. More importantly, the HWAT system saves energy, water, and requires less maintenance which significantly reduces building operating costs. When properly installed and maintained, HWAT heating cables have a service life in excess of 40 years.



HWAT System



HWAT System for
Hot Water Temperature Maintenance



For HWAT design assistance, please refer to the Hot Water Temperature Maintenance Product Selection and Design Guide (H57538)



HWAT System

Project Services

The nVent Project Services team of experts partner with you to address all types of projects, from **buildings** to complex **infrastructure**, to ensure optimized solutions to enhance safety, comfort and performance.



PROPOSALS & ESTIMATES

- Support architects, engineers, and contractors to develop Electric Heat Trace (EHT) scope, review EHT applications, and outline required engineering deliverables
- Provide detailed proposals for requested Scope of Work including Engineering, Products, Construction, and/or Field Support Services

PROJECT MANAGEMENT

- Manage heat trace projects for design, supply and/or installation services
- Manage materials—procurement, buy-outs, deliveries on site

ENGINEERING & DESIGN

- Create custom layout drawings for EHT applications
- On-site field engineering and design for heat trace applications
- Design custom heat trace systems with optimized performance



Beyond front end assistance of proposals, engineering and design, the Project Services team can be there every step of the way through construction and installation, to commissioning and post installation services.



CONSTRUCTION / INSTALLATION

- Installation of heat trace products
- Installation of power distribution and control wiring
- On-site supervision of installation

FIELD SUPPORT SERVICES

- Commissioning & Start-up Assistance
- Troubleshooting & Repair
- Audits
- Training



CHOOSE PROJECT SERVICES TO...

- Provide CUSTOM SOLUTIONS to meet your needs
- Help you REDUCE RISK
- Be the SINGLE POINT OF CONTACT for your project needs
- Optimize the right system for your building or infrastructure.

Visit our web site at nVent.com
or contact us at **1-800-545-6258**

Commercial Heating Products

SELF-REGULATING HEATING CABLES

nVent RAYCHEM self-regulating heating cables consist of two parallel conductors embedded in a conductive polymer heating core. The core is radiation-cross linked to ensure long-term reliability. The self-regulating heating cable automatically adjusts power output to compensate for temperature changes. Producing the 'right amount of heat' saves you money with no wasted energy.

SELF-REGULATING HEATING CABLES



XL-Trace

Pipe Freeze Protection and Flow Maintenance



IceStop

Roof and Gutter De-Icing



ElectroMelt

Surface Snow Melting and Anti-Icing



RaySol

Heat-Loss Replacement and Freezer Frost Heave Prevention



HWAT

Hot Water Temperature Maintenance

CONNECTION KITS AND ACCESSORIES

nVent RAYCHEM power, splice, tee, end seal kits, and accessories are vital parts of the heat tracing system.

The RayClic connection kits have been designed and configured to be fully compatible with our XL-Trace, IceStop, and HWAT heating cables, and cuts installation time by 80%.

RayClic-PC Power Connection



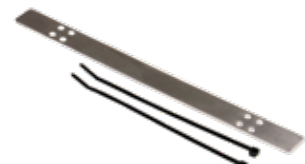
GMK-RC Roof Clip



RayClic-LE Lighted End Seal



GM-RAKE Hanger Bracket



MINERAL INSULATED HEATING CABLES

nVent RAYCHEM mineral insulated heating cables consist of a single or dual conductor surrounded by magnesium oxide insulation, a solid copper sheath, and an extruded LSZH jacket. The mineral insulated series-type technology provides a reliable and constant heat source that is ideal for surface snow melting, anti-icing, floor heating, and freezer frost heave prevention.



COPPER MI HEATING CABLES



Roof & Gutter De-Icing, Heat Loss Replacement

LSZH JACKETED COPPER MI HEATING CABLES



Roof & Gutter De-Icing, Surface Snow Melting, Anti-Icing, Freezer Frost Heave Prevention

ALLOY 825 MI HEATING CABLES



Surface Snow Melting, Anti-Icing

Control & Monitoring Products

ADVANCED CONTROLLERS & POWER DISTRIBUTION

ADVANCED CONTROLLERS

Our microprocessor-based controllers provide accurate control and feedback for critical heat tracing applications, including freeze protection for sprinkler piping systems. nVent RAYCHEM HWAT-ECO and C910-485 are single-point controllers, whereas the nVent RAYCHEM ACS-30 is a multi-point control platform.

HWAT-ECO



C910-485



ACS-30



POWER DISTRIBUTION

nVent RAYCHEM dedicated HTPG and SMPG power-distribution panels reduce costly field wiring and controller costs. Available for heat tracing, surface snow melting, anti-icing, and roof and gutter de-icing applications. The HECS control system is specifically designed to work with RIM roof ice melt systems and can utilize multiple sensors to provide zone control for better energy efficiency.

HTPG



SMPG



HECS



SNOW CONTROLLERS & THERMOSTATS

SNOW CONTROLLERS AND SENSORS

ETI® snow controllers automatically energize snow melting, and roof and gutter de-icing systems when both precipitation and low temperature are detected. The controllers work with the aerial, pavement-mounted, and gutter snow sensors.



ELECTRONIC AND MECHANICAL THERMOSTATS

The nVent RAYCHEM EC-TS and ECW-GF are ambient or line sensing thermostats and provide accurate temperature control for pipe freeze protection and flow maintenance applications. They can control a single heat tracing circuit or as a pilot control of a contactor switching multiple heat tracing circuits.

Our mechanical thermostats, like the nVent RAYCHEM AMC-F5 or AMC-1A, provide simple on/off control for pipe freeze protection applications. They can control a single heat tracing circuit or as a pilot control of a contactor switching multiple heat tracing circuits.



FLOOR HEATING THERMOSTATS

Our floor heating thermostats are suitable for all nVent NUHEAT floor heating systems and include built-in GFCI protection:

Signature
(WiFi-enabled programmable
touchscreen) Works with Nest



Home
(programmable touchscreen)



Element
(non-programmable)



Controller Application Matrix

GENERAL APPLICATIONS													
		Least Desirable								Most Desirable			
		Element	Home	Signature	AMC-F5	AMC1A	AMC1B	EC-TS	ECW-GF	HTPG	C910-485	ACS-30	
Application	Pipe Freeze Protection				✓	✓	✓	✓	✓	✓	✓	✓	
	Pipe Flow Maintenance						✓	✓	✓		✓	✓	
	Fire Mains, Sprinkler Lines										✓	✓	
	Roof & Gutter - IceStop							✓	✓			✓	
	Roof & Gutter - RIM												
	Surface Snow Melting									✓		✓	
	Freezer Frost Heave/Heat Loss								✓	✓	✓	✓	
	Floor Heating - Nuheat	✓	✓	✓									
	Domestic Hot Water												✓
	# of Circuits	120 V	1	1	1	1	1	1	1	1	54	1	5+
208 V		1	1	1	1	1	1	1	1	26	1	5+	
240 V		1	1	1	1	1	1	1	1	20	1	5+	
277 V					1	1	1	1	1	26	1	5+	
480 V												5+	
Minimum Setpoint		50°F	50°F	50°F	40°F	15°F	25°F	30°F	32°F			0°F	
Maximum Setpoint	104°F	104°F	104°F	40°F	140°F	325°F	110°F	200°F			200°F		
Power Distribution										✓			
Max Amps/Circuit	15	15	15	22	22	22	30	30	50		30	30	
30 mA GFPD									✓		✓	✓	
Hold On Timer (hours)	1hr to indefinite	1hr to indefinite	1hr to indefinite										
Controls Based on	Ambient Temp	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Line Temp				✓		✓	✓	✓		✓	✓	
	Moisture									✓		✓	
	Proportional (PASC)										✓	✓	
Additional Sensor Input Req'd	Sensor Length (feet)	15	15	15	2.5	0	9	25	25		0-4500	0-4500	
	RTD										✓	✓	
	CIT-1									✓			
	GIT-1									✓			
	SIT-6E									✓			
	External									✓	✓	✓	
	Max # Sensors							1	1	1	2	5+	
	Optional Remote Control								✓				
	Contacts								✓	Optional	✓	✓	
	AC relay										✓		
Smart										✓	✓		
Alarms	High Voltage										✓	✓	
	Low Volage (Loss of Power)							✓			✓	✓	
	Low Temp							✓			✓	✓	
	High Temp							✓			✓	✓	
	GF Monitoring	✓	✓	✓							✓	✓	
	GF Trip	✓	✓	✓					✓	Optional	✓	✓	
	Hi Amp Draw										✓		
	Low Amp Draw										✓		
	Sensor Failure	✓	✓	✓					✓		✓	✓	
	Auto-Cycle										✓	✓	



RAYCHEM

		HOT WATER APP									
		SNOW MELTING APPLICATIONS									
		Least Desirable								Most Desirable	
		HWAT-ECO	LCD-8	ASD	APS-3C	PD-PRO	GF-PRO	APS-4C	SC-40	HECS	SMPG
Application	Pipe Freeze Protection										
	Pipe Flow Maintenance										
	Fire Mains, Sprinkler Lines										
	Roof & Gutter - IceStop		✓		✓	✓	✓	✓	✓		✓
	Roof & Gutter - RIM			✓						✓	
	Surface Snow Melting		✓		✓	✓	✓	✓	✓		✓
	Freezer Frost Heave/ Heat Loss										
	Floor Heating - Nuheat										
	Domestic Hot Water	✓									
	# of Circuits	120 V		1	4 or 8	1	1	1			18
208 V		1	1	4 or 8	1	1	1	1	1	18	18
240 V		1	1	4 or 8	1	1	1	1	1	18	
277 V				4 or 8		1	1	3	3	18	18
480 V				4 or 8				1	1	18	9
Minimum Setpoint		105°F	38°F	-150°F	38°F	38°F	38°F	38°F		-150°F	
Maximum Setpoint		140°F	38°F	150°F	38°F	38°F	38°F	38°F		150°F	
Power Distribution										✓	✓
Max Amps/Circuit		24	16	30	24	30	30	40	40	40	50
30 mA GFPD							✓	✓	✓	✓	✓
Controls Based on	Hold On Timer (hours)		0-5		0-10	0-8	0-8	0-10	0-10		0-10
	Ambient Temp		✓	✓	✓	✓	✓	✓	✓	✓	✓
	Line Temp										
	Moisture		✓		✓	✓	✓	✓	✓		✓
	Proportional (PASC)										
	Sensor Length (feet)	13-328		15						15	
	RTD			✓						✓	
	CIT-1				✓	✓	✓	✓			✓
	GIT-1				✓	✓	✓	✓			✓
	SIT-6E				✓	✓	✓	✓			✓
Additional Sensor Input Req'd	External	Optional			Optional			Optional	APS-40		Optional
	Max # Sensors		1	6	2	2	6		2	6	
	Optional Remote Control				RCU-3	RCU-3	RCU-4	RCU-4			RCU-3
BMS Tie-In	Contacts										
	AC relay	✓									
	Smart										
Alarms	High Voltage										
	Low Voltage (Loss of Power)	✓									
	Low Temp	✓									
	High Temp	✓									
	GF Monitoring										
	GF Trip						✓	✓	✓	✓	Optional
	Hi Amp Draw										
	Low Amp Draw	✓									
	Sensor Failure	✓									✓
Auto-Cycle											

Designer's Toolbox

VISIT NVENT.COM

Our website provides all the latest tools and information you need to design, select, and purchase a complete system for any commercial heating application. Browse and find the most up-to-date product brochures, data sheets, design guides and installation instructions.

Use our web-based design programs to help with your projects.

Visit our web site at
nVent.com
or contact us at
1-800-545-6258.

DESIGN TOOLS



BIMobject, BIM & TRACE-IT

BIMobject is a search engine that enables architects, engineers, and other design professionals to quickly discover, preview, and download our BIM files and product specifications for use in CAD Systems. For more information, visit <https://bimobject.com>, and search on nVent.

Trace-It is a software BIMobject add-in that allows users to design nVent RAYCHEM heat trace within their Revit model. To download Trace-It, go to <http://apps.autodesk.com>, and type in Trace-It.

ACS-30 Program Integrator

The ACS-30 Program Integrator is a utility used on Microsoft Windows PCs that allows the user to easily set up circuit databases—providing invaluable help for commissioning the heating cable control system.



TraceCalc For Buildings

TraceCalc Pro For Buildings is an intuitive, easy-to-use, online design tool that lets users create simple or complex heat-tracing designs for pipe freeze protection and flow maintenance applications. Projects can have multiple applications, circuits, and pipe segments.

Once users enter parameters, the system generates a complete bill of material with the appropriate heating cables, circuit lengths, power requirements, connection kits and accessories—which can be used to request a quote online.



Roof & Gutter Calculator

Roof & Gutter Calculator is an on-line, easy-to-use design tool that lets users enter design parameters for a roof & gutter de-icing project.

Once users enter parameters, the system generates a complete bill of material with the appropriate heating cables, circuit lengths, power requirements, connection kits and accessories—which can be used to request a quote online.



SnoCalc

SnoCalc is an on-line, easy-to-use design tool that lets users enter design parameters for a surface snow melting project.

Once users enter parameters, the system generates a complete bill of material with the appropriate heating cables, circuit lengths, power requirements, connection kits and accessories—which can be used to request a quote online.



Before You Specify or Buy, Weigh The Facts

nVent offers the most complete line of heating technologies and services.

As the inventors of nVent RAYCHEM heat tracing products, with more than **1.75 billion feet** installed worldwide, we are the preferred brand by engineers and installers for all applications.

Whether you need **products, design tools, or project assistance from our Project Services experts**, rely on the proven heating solutions leader for optimized systems to enhance the safety, comfort, and performance of your building or infrastructure projects.



Pipe Freeze Protection



Flow Maintenance



Roof & Gutter De-Icing



Surface Snow Melting



Freezer Frost Heave Prevention



Floor Heating



Hot Water Temperature Maintenance



Project Services

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Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER



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