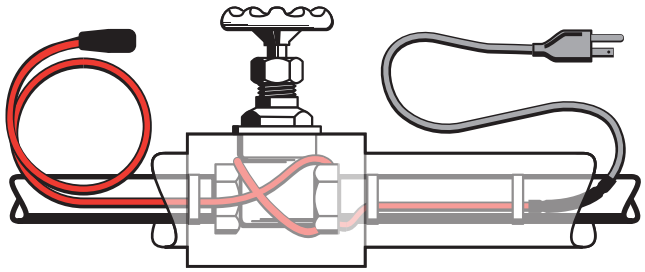
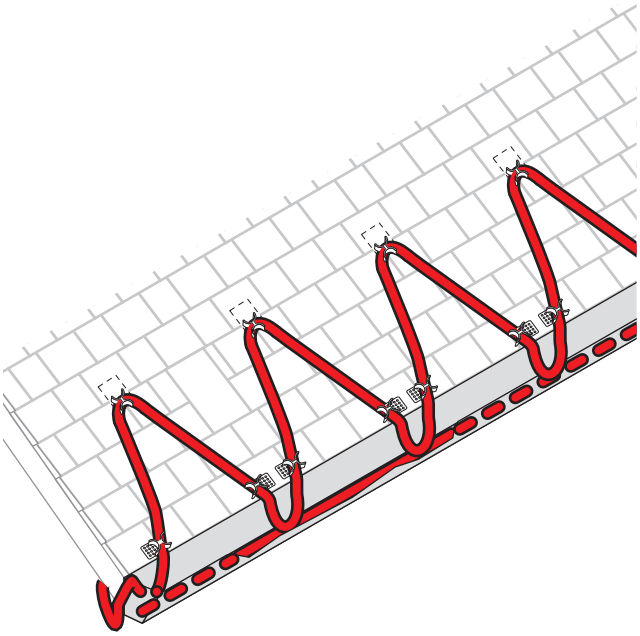
FROSTGUARD

nVent RAYCHEM

CONNECT AND PROTECT

Preassembled Heating Cable





PRODUCT OVERVIEW

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

120 V FrostGuard cables come pre-assembled in 6, 12, 18, 24, 36, 50, 75 and 100 foot 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 foot lengths. 240 V FrostGuard cables are designed for pipe freeze protection in dry areas, on pipes up to 2-1/2 inches in diameter.

FROSTGUARD PREASSEMBLED HEATING CABLE SPECIFICATIONS

Catalog number	120 V with 6-ft cold lead & lighted plug	208-240 V with 6-ft cold lead
	FG1-6P	FG2-6L
	FG1-12P	FG2-12L
	FG1-18P	FG2-18L
	FG1-24P	FG2-24L
	FG1-36P	
	FG1-50P	
	FG1-75P	
	FG1-100P	

FROSTGUARD PREASSEMBLED HEATING CABLE SPECIFICATIONS

Application	Pipe freeze protection and roof and gutter de-icing	Pipe freeze protection
Voltage	120 V	208-240 V
Nominal power output on pipes at 40°F (5°C) (W/ft)	6	6
Nominal power output in ice or snow at 32°F (W/ft)	8	N/A
Maximum cable width (inch/mm)	0.45 (11.4)	0.45 (11.4)
Maximum cable thickness (inch/mm)	0.24 (6.1)	0.24 (6.1)
Cold lead length (ft/m)	6 (1.83)	6 (1.83)
Maximum exposure temperature	150°F (65°C)	150°F (65°C)
Minimum installation temperature	5°F (–15°C)	5°F (–15°C)
Minimum bend radius (inch/mm)	5/8 (16)	5/8 (16)

APPROVALS

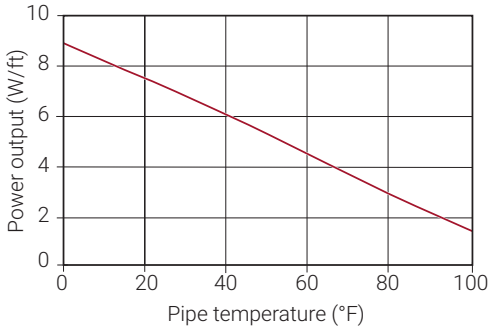
C SP US -WS

C SP US -W

GROUND-FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of nVent, agency certifications, and national electrical codes, 30-mA equipment or 5-mA personnel ground-fault protection must be used on each FrostGuard heating cable branch circuit. Arcing may not be stopped by conventional circuit protection.

NOMINAL POWER TEMPERATURE CURVE FOR PIPES



HEATING CABLE SELECTION FOR PIPE FREEZE PROTECTION

Pipe freeze protection

Use the tables to below to select the correct heating cable length.

FrostGuard 120 V (FG1) Heating Cable Selection

Table 1 Metal Pipes

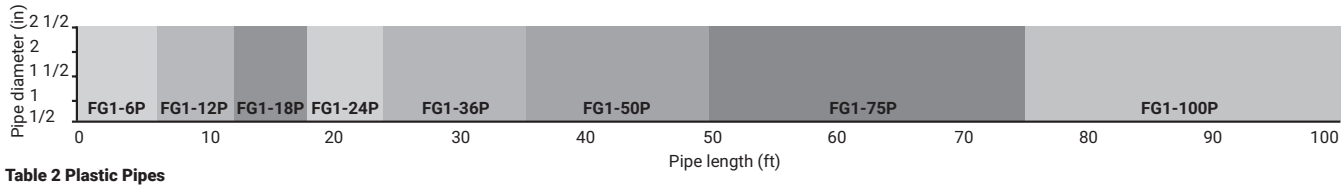
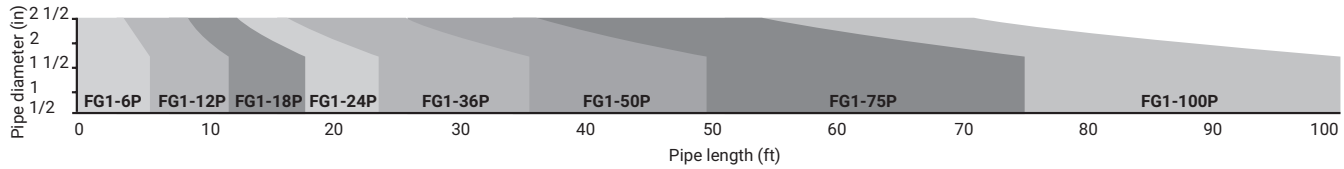


Table 2 Plastic Pipes



Add 1 foot to your pipe length for each valve or spigot on your pipe system. If cable selected is longer than the pipe, spiral it evenly along the entire pipe.

FrostGuard 240 V (FG2) Heating Cable Selection

Table 1 Metal Pipes

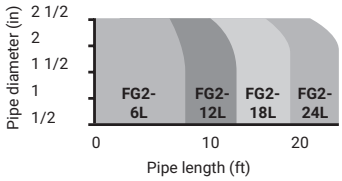
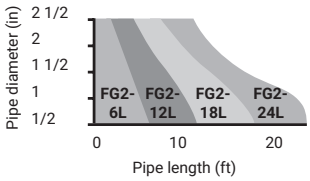


Table 2 Plastic Pipes



Add 1 foot to your pipe length for each valve or spigot on your pipe system.
If cable selected is longer than the pipe, spiral it evenly along the entire pipe.

HEATING CABLE SELECTION FOR ROOF AND GUTTER DE-ICING (120 V ONLY)

Find the number of feet of heating cable needed per foot of roof edge in table to the right. Then, calculate the amount of total heating cable length you need using the following formula:

Length = A + B + C + D

A	Roof edge length (ft) x Length of cable per foot of roof edge (ft)
B	Roof edge (ft) x 0.5*
C	Total gutter length (ft)
D	Total downspout length (ft) + 1 (ft) [double if looping]
=	Total heating cable length (ft)

*Roof extension: This length allows the heating cable to extend into the gutter to provide a continuous drain path, or where no gutters are present, extends beyond the roof edge to form a drip loop.

Length of Cable Per Foot of Roof Edge (ft)			
		Standing Seam Metal Roof	
Overhang (in)	Standard Roof	18 inch Seam	24 inch Seam
None*	2	2.5	2
12 in	2.8	2.8	2.4
24 in	3.8	3.6	2.9
36 in	4.8	4.3	3.6

* Gutter required

Note: nVent recommends a gutter and downspouts to provide a continuous path for melted water.

- If downspout is in the middle of the run, loop the FrostGuard down and back up. Double the length of the downspout for determining the length of FrostGuard to install.
- For valleys, run the heating cable two thirds of the way up and down the valley.
- For gutters 5-6 inches wide, use 2 runs of heating cable.
- For gutters wider than 6 inches contact nVent at (800) 545-6258.

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Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER

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