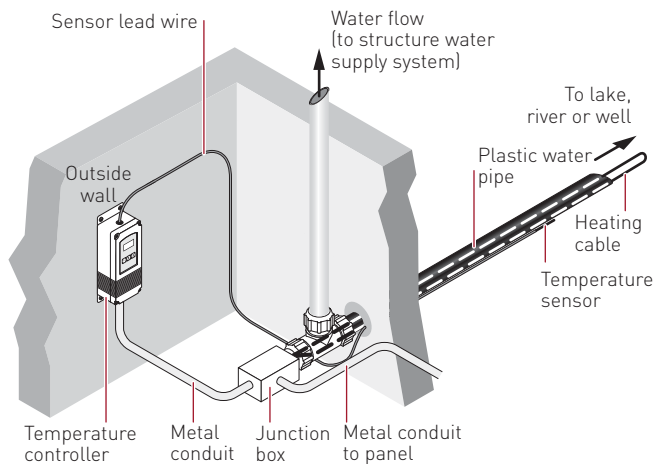


Raychem IN-PIPE RETRO

IN-PIPE FREEZE PROTECTION HEATING CABLE

A pipe freeze protection system that heats uninsulated plastic pipes from the inside



PRODUCT OVERVIEW

Utilizing a heavy-duty cable that is made entirely of metal and mineral insulation, Raychem In-Pipe Retro is a high wattage in-pipe heating cable for pipes between 40 ft and 250 ft (12.2 m and 76.2 m) in length.

For 120 volts, heating cables between 40 ft and 150 ft (12.2 m and 45.7 m) include a 120 volt ground-fault protected electronic controller for easy plug-in to a standard 120 V wall outlet. For 240 volts, heating cables between 160 ft and 250 ft (48.8 m and 76.2 m) are available and include an electronic controller; 240 V heating cables must be connected to a 240 volt ground-fault protected circuit breaker. In-Pipe Retro is designed for use with 1" and 1-1/4" polyethylene pipes that are not insulated.

For additional information, contact your Pentair Thermal Management representative or call (800) 545-6258.

APPLICATION

Freeze protection of potable water pipes

AREA CLASSIFICATION

Nonhazardous areas

PIPE TYPE

- 1" and 1-1/4" polyethylene plastic pipes as described below
- I.D. Series 75 & 100 (PE 1404) (SIDR 9)
 - I.D. Series 125 (PE 2306, 2406 or 3406 resin) (SIDR 11.5)
 - I.D. Series 160 (PE 3408 resin) (SIDR 9)

SUPPLY VOLTAGE

Between 40 ft and 150 ft (12.2 m and 45.7 m)	120 Vac
Between 160 ft and 250 ft (48.8 m and 76.2 m)	240 Vac (hard-wired)

CABLE MATERIAL

Polyethylene jacketed copper sheathed mineral insulated cable

MINIMUM BEND RADIUS

2 in (50 mm)

IN-PIPE RETRO

ELECTRONIC CONTROLLER

Rating	SPDT, 120 Vac, 16 A; 240 Vac, 8 A
Temperature range	-30°F (-34°C) to 220°F (104°C) [°F or °C user selectable]
Setting	User programmable
Display	LCD digital readout
Sensor lead length	25 ft (7.6 m)

APPROVALS



This product is suitable for use in potable water.

ESTIMATING THE LENGTH OF HEATING CABLE REQUIRED

Measure the pipe length while allowing for the contour of the land. The In-Pipe Retro heating cable must be one foot shorter than the pipe, but the pipe may be lengthened, if necessary, to accommodate the heating cable length.

INSTALLATION

For proper installation, refer to either the Raychem In-Pipe Retro 120-V Heating Cable Installation Instructions (H56925) or the Raychem In-Pipe Retro 240-V Heating Cable Installation Instructions (H57283). Additional literature is available via the Pentair Thermal Management web site, www.pentairthermal.com.

GROUND-FAULT PROTECTION

To minimize the danger of electrical shock or fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with Pentair Thermal Management requirements, agency certifications, and electrical codes, **the ground-fault equipment protection device (GFEPD) supplied with 120 V In-Pipe Retro must be used. 240 V In-Pipe Retro must be protected by a 30-mA ground-fault breaker.** Arcing may not be stopped by conventional circuit breakers.

IN-PIPE RETRO PRODUCT SPECIFICATIONS

Catalog number	Length ft (m)	Watts	Nominal weight lb (kg)
RETRO-120-40	40 (12.2)	295	12.0 (5.4)
RETRO-120-50	50 (15.2)	370	14.0 (6.4)
RETRO-120-60	60 (18.3)	400	14.0 (6.4)
RETRO-120-70	70 (21.3)	515	15.0 (6.8)
RETRO-120-80	80 (24.4)	600	18.5 (8.4)
RETRO-120-90	90 (27.4)	530	19.5 (8.8)
RETRO-120-100	100 (30.5)	685	20.0 (9.1)
RETRO-120-110	110 (33.5)	820	22.5 (10.2)
RETRO-120-120	120 (36.6)	750	23.5 (10.7)
RETRO-120-130	130 (39.6)	925	25.5 (11.6)
RETRO-120-140	140 (42.7)	860	27.0 (12.2)
RETRO-120-150	150 (45.7)	1200	29.0 (13.2)
RETRO-240-160	160 (48.8)	1200	27.0 (12.2)
RETRO-240-170	170 (51.8)	1130	28.0 (12.7)
RETRO-240-180	180 (54.9)	1070	29.0 (13.2)
RETRO-240-190	190 (57.9)	1440	30.0 (13.6)
RETRO-240-200	200 (61.0)	1370	32.0 (14.5)
RETRO-240-210	210 (64.0)	1310	33.0 (15.0)
RETRO-240-220	220 (67.1)	1635	36.0 (16.3)
RETRO-240-230	230 (70.1)	1565	37.0 (16.8)
RETRO-240-240	240 (73.2)	1500	39.0 (17.7)
RETRO-240-250	250 (76.2)	1920	41.0 (18.6)

Note: Custom lengths up to 500 ft (152.4 m) are available; contact Pentair Thermal Management for assistance.



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