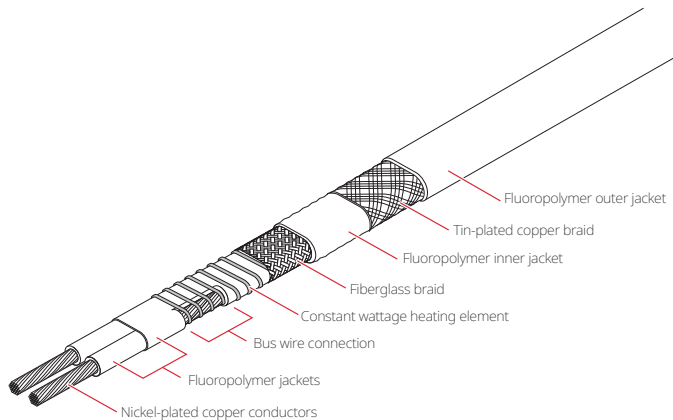


## Constant power density heating cables for frost heave protection

### FROST HEAVE PROTECTION FOR CRYOGENIC STORAGE TANK FOUNDATIONS



The Raychem FHPC family of parallel resistance, constant power density (parallel constant wattage) heating cables prevents frost heave by maintaining the temperature of cryogenic and low temperature storage tank foundations above freezing.

FHPC cables are available for all tank sizes and construction. FHPC heating cables can be cut to length and terminated in the field.

The heating cables are designed for use in hazardous and nonhazardous areas, including areas where corrosives may be present.

For additional information, contact your Chemelex representative.

### APPLICATION

Area classification	Nonhazardous and hazardous locations
Installation type	Inside conduit embedded in concrete slabs/walls/beams or dry sand
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives

### SUPPLY VOLTAGE\*

FHPC4	120 Vac
FHPC5	230 Vac
FHPC6	400 Vac
FHPC7	480 Vac

\***Note:** For other voltages, contact Chemelex for assistance.

### TEMPERATURE RATING

Minimum installation temperature	-40°C (-40°F)
Maximum maintain or continuous exposure temperature (power on)	90°C (194°F)
Maximum exposure temperature (power off)	200°C (392°F)

### TEMPERATURE CLASSIFICATION

Application dependent. Established using principles of stabilized design. Contact Chemelex for assistance.

## APPROVALS



II 2 GD EEx e II T\* (see schedule)

Baseefa04ATEX0388X

Ex e II T\* (see schedule) DIP DIP A21

IECEX BAS 05.0022X



Ex e II T<sup>(1)</sup>

04.1617344X

<sup>(1)</sup>T-class by Design.

## CATALOG NUMBERS, NOMINAL POWER OUTPUT AND MAXIMUM CIRCUIT LENGTHS

Catalog Number	Voltage	Nominal Power Output		Circuit Load		Max. Circuit Length	
		W/m	W/ft	A/m	A/ft	Length/m	Length/ft
<b>FHPC4-8</b>	120 Vac	26	8	0.241	0.073	64	210
<b>FHPC4-10</b>	120 Vac	33	10	0.301	0.092	58	190
<b>FHPC4-12</b>	120 Vac	39	12	0.361	0.110	52	170
<b>FHPC5-8</b>	230 Vac	26	8	0.125	0.038	131	430
<b>FHPC5-10</b>	230 Vac	33	10	0.157	0.048	116	380
<b>FHPC5-12</b>	230 Vac	39	12	0.188	0.057	107	350
<b>FHPC5A-8</b>	277 Vac	26	8	0.104	0.032	146	480
<b>FHPC5A-10</b>	277 Vac	33	10	0.130	0.040	131	430
<b>FHPC5A-12</b>	277 Vac	39	12	0.156	0.048	119	390
<b>FHPC6-8</b>	400 Vac	26	8	0.072	0.022	216	710
<b>FHPC6-10</b>	400 Vac	33	10	0.090	0.028	195	640
<b>FHPC6-12</b>	400 Vac	39	12	0.108	0.033	177	580
<b>FHPC7-8</b>	480 Vac	26	8	0.060	0.018	262	860
<b>FHPC7-10</b>	480 Vac	33	10	0.075	0.023	235	770
<b>FHPC7-12</b>	480 Vac	39	12	0.090	0.028	213	700

## GROUND-FAULT PROTECTION

A 30-mA residual current device or ground leakage circuit breaker must be used to provide protection from arcing or fire and to comply with warranty requirements, agency certifications, and national electrical codes. Where properly installed circuits result in a higher leakage current due to their long length, devices with higher trip currents, to a maximum of 300-mA, may be used. Suitable ground-fault breakers include Square D Type QO-EPD and QOB-EPD, Chemelex GFPD EHB-EPD (277 Vac) and Cutler Hammer (Westinghouse) Type QBGFEP.

## PRODUCT CHARACTERISTICS

Minimum bend radius	20 mm (0.75 in)
Weight (nominal)	0.2 kg/m (1.4 lb/10 ft)
Conductor size	3.3 mm <sup>2</sup> (12 AWG)
Outer jacket color	Red
Heating cable dimensions (nominal)	11.5 mm x 8.4 mm (0.45 in x 0.33 in)

## COMPONENTS

The components listed below, or Chemelex approved equivalents, must be used to ensure the FHPC system functions properly and complies with warranty, code, and approvals requirements. These components are part of the FHPC engineered system and must be selected by Chemelex.

Type	Catalog number	Description	Approvals
<b>Power connection kit</b>	FHP-P	Single power connection with junction box	CSA
<b>End seal</b>	FHP-PL-E	End seal kit with pulling lug	CSA, Baseefa
<b>Connection kits to be used with engineered junction boxes</b>	C75-100-A	Heating cable gland kit	CSA
	C25-21-FHP	Connection kit (heat shrinkable)	Baseefa, PTB
	C25-100-FHP	Connection (cold applied)	Baseefa, PTB
	C25-100-Metal-FHP	Connection kit (metal, cold applied)	Baseefa, SIRA
<b>Junction box</b>	JBU-100-E-FHP	Junction box	Baseefa, PTB
	JBU-100-EP-FHP	Junction box with earth plate	Baseefa, PTB

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**Raychem Tracer Pyrotenax Nuheat**