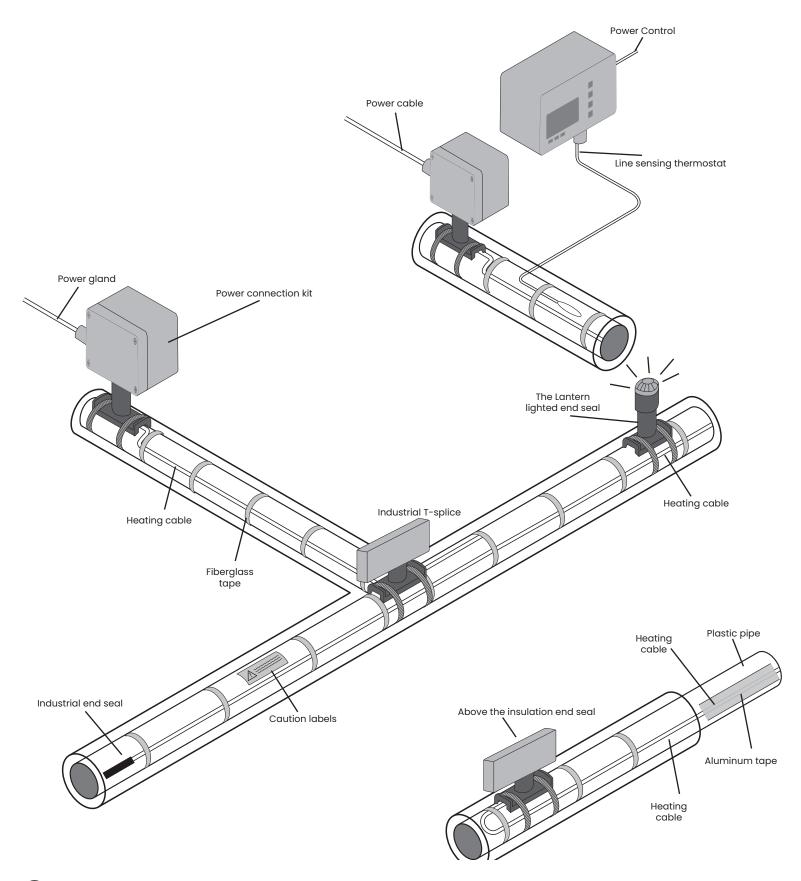


SELECTION GUIDE

INTEGRAL CONNECTION SYSTEM FOR HEAT TRACING





Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.

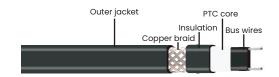






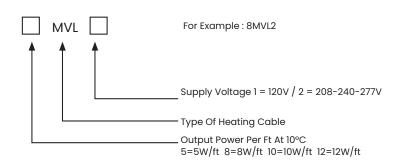
13 mm MVL self regulating heating cable for low temperature hazardous areas with fluoropolymer sheat

MVL cables are ideal for freeze protection & process temperature maintenance on pipe, tanks and valves for residential and commercial applications for exposure to organic or corrosive solutions. These cables use the latest self-regulating technology adjusting heat output according to the ambient temperature, making them energy efficient and cost effective.



- Cable can be cut to desired length and overlapped without risk of overheating.
- Suitable for metal or plastic surfaces.
- · Low installation and maintenance cost.
- Tinned copper braid provides additional protection to the cable core.
- Flame retardant fluoropolymer outer jacket option, protects against certain chemical solution, abrasion and impact damage.
- CSA (CAN, USA) Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.

MODEL	WATTS	VOLTAGE
5MVL1, 5MVL2	5	120V/240V
8MVL1, 8MVL2	8	120V/240V
10MVL1, 10MVL2	10	120V/240V
12MVL1, 12MVL2	12	120V/240V



SPECIFICATION					
Jacket	Fluoropolymer				
Chemical Resistance	Organic and corrosive solutions				
Nominal Thickness (mm)	6				
Nominal Width (mm)	12.6				
Minimum Bending Radius (mm)	36				
Weight (kg/100m)	13.8				
Electrical Classification	Hazardous				
Service Voltage	120V / 240V (208-277V)				
Max. maintain or continous exposure temperature (power on)	65°C (150°F)				
Max. Intermitent Exposure	85°C (185°F)				
Minimum Installation Temperature	-40°C (-40°F)				
Protective Braid resistance	<18.2 Ω/km				
Bus Wire Gauge	16 AWG				
Approvals	CSA / UL / ETL				

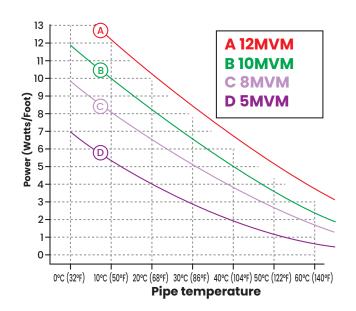


13 mm MVL self regulating heating cable with fluoropolymer sheat



Power output curves

Nominal power output at 240V when MVL is installed on insulated metal pipes



	Adjustment Factors							
	Power	Output	Circuit	Length				
	208V	277V	208V	277V				
5MVL2	0.85	1.12	0.94	1.09				
8MVL2	0.89	1.08	0.92	1.11				
10MVL2	0.89	1.08	0.92	1.11				
12MVL2	0.89	1.08	0.92	1.11				

	CB Size	51	MVL	8MVL		10MVL		12MVL	
Minimum Start-up Temp.		120V	240V	120V	240V	120V	240V	120V	240V
	Amps	ft	ft	ft	ft	ft	ft	ft	ft
	10	162	324	123	246	73	147	55	111
	15	249	498	177	354	121	242	91	183
10°C (50°F)	20	265	530	203	406	147	295	114	229
	30	265	530	210	420	157	315	114	229
	40	265	530	210	420	180	360	120	240
	10	135	269	102	203	55	111	39	78
	15	215	429	146	291	88	177	62	124
0°C (32°F)	20	253	505	180	360	108	216	80	160
	30	253	505	180	360	123	246	80	180
	40	253	505	180	360	157	315	105	210
	10	105	209	54	108	42	85	29	59
	15	169	337	92	183	65	131	45	91
-20°C (-4°F)	20	217	433	115	229	82	164	62	124
	30	240	480	175	350	107	215	79	158
	40	240	480	175	350	107	215	79	158
	10	80	160	52	104	34	68	24	49
	15	128	255	82	164	57	114	42	85
-40°C (-40°F)	20	164	328	103	206	70	141	49	98
	30	200	400	88	175	85	170	60	120
	40	200	400	160	320	107	215	79	158

^{*} CB: Circuit breaker size





12.5 mm MVM medium temperature self-regulating heating cable

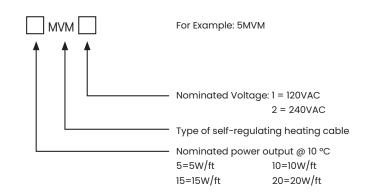
Drexma MVM medium temperature self-regulating heating cable can be used for freeze protection application and process temperature maintaince within/out steam purge (or the steam purge temperature will be lower than 135 °C) in industry area. The maximum maintaince temperature will be up to 110 °C. No matter whether the pipeline is overhead or buried installation, MVM heating cable can maintain the temperature and phase structure of the medium in the pipeline or vessel. MVM heating cable is CSA certified, IECEx and ATEX for ex-proof application or ordinary area.



The extruded core tape, which made by parallel tinner copper bus wire and PTC semiconductor polymer heating material, and inner insulation layer of fluoropolymer are added to tinned copper braid and the outer jacket form a complete structure of MVM heating cable, in which the outer jacket can be made of fluoropolymer material (CT).

- According to the characteristics of automatic adjustment of power output based on ambient temperature, it can avoid overheating or burning on heating cable even in the case of overlapping installation; Simultaneously this feature can increase the efficiency of the heat tracing system and reduce energy consumption
- It is allowed to cut arbitrarily within the interval specified by the maximum circuit length and connect with compliance accessories
- It has a complete series of accessory, including standard power box, splice/tee connection box and end seal box etc, which can ensure the long service life of the heating system.
- CSA (CAN, USA) Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.

MODEL	WATTS	VOLTAGE
5MVM1, 5MVM2	5	120V/240V
10MVM1, 10MVM2	10	120V/240V
15MVM1, 15MVM2	15	120V/240V
20MVM1, 20MVM2	20	120V/240V

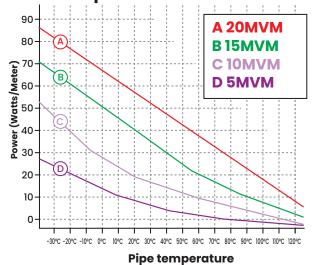


SPECIFICATION					
Nominated Voltage	120V / 240V				
Maximum maintaince temperature:	+110 °C (225 °F)				
Maximum intermittent exposure temperature:	+135 °C (275 °F)				
Temperature classification:	T4				
IP level:	IP66/67				
Minimum installation temperature:	-60 °C (-76 °F)				
Minimum bending radius:	30mm (1.2 in.)				
Nominated power output @10 C:	5W/ft, 10W/ft, 15W/ft, 20W/ft				
Dimension:	CT: 12.36mm(W)×4.76mm(T) / 0.5 in. x 0.2 in.				
Approvals	CSA / IECEX / EX				

12.5 mm MVM medium temperature self-regulating heating cable



Power output curves



	Adjustment Factors					
	Power	Output	Circuit Length			
	208V	277V	208V	277V		
5MVM2	0.82	1.20	0.96	1.04		
10MVM2	0.85	1.18	0.94	1.06		
15MVM2	0.91	1.09	0.91	1.10		
20MVM2	0.90	1.07	0.91	1.11		

	Start-up temperature	5M	5MVM		10MVM		15MVM		20MVM	
CB Size		120V	240V	120V	240V	120V	240V	120V	240V	
	° C (°F)	ft	ft	ft	ft	ft	ft	ft	ft	
	10 (50)	214	428	157	314	105	211	73	146	
	0 (32)	199	398	147	294	99	198	66	133	
16	-10 (14)	183	365	134	269	90	181	61	122	
15	-20 (-4)	169	337	124	248	84	167	56	112	
	-30 (-22)	157	314	116	231	78	156	52	105	
	-40 (-40)	146	292	108	215	72	145	49	97	
	10 (50)	253	507	196	393	132	263	91	183	
	0 (32)	249	498	184	367	124	247	83	166	
20	-10 (14)	228	456	168	336	113	226	76	152	
20	-20 (-4)	211	421	155	310	104	209	70	140	
	-30 (-22)	197	394	145	290	97	194	65	130	
	-40 (-40)	183	365	135	269	90	181	61	122	
	10 (50)	286	572	202	404	163	325	128	257	
	0 (32)	286	572	202	404	154	309	117	233	
05	-10 (14)	286	572	202	404	141	283	107	214	
25	-20 (-4)	286	572	194	387	131	261	99	198	
	-30 (-22)	275	551	181	362	122	244	92	185	
	-40 (-40)	265	531	168	336	113	226	86	171	
	10 (50)	286	572	202	404	163	325	143	285	
	0 (32)	286	572	202	404	163	325	130	259	
	-10 (14)	286	572	202	404	163	325	119	238	
30	-20 (-4)	286	572	202	404	163	325	110	219	
	-30 (-22)	286	572	202	404	155	305	100	205	
	-40 (-40)	286	572	202	404	145	290	95	190	
	10 (50)	286	572	202	404	163	325	145	291	
	0 (32)	286	572	202	404	163	325	145	291	
40	-10 (14)	286	572	202	404	163	325	145	291	
40	-20 (-4)	286	572	202	404	163	325	140	281	
	-30 (-22)	305	609	134	421	111	346	103	300	
	-40 (-40)	270	572	202	404	163	325	122	243	





12.5 mm MVH high temperature self-regulating heating cable

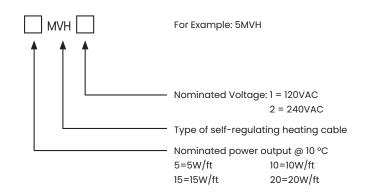
Drexma MVH high temperature self-regulating heating cable can be used for freeze protection application and process temperature maintaince within/out steam purge (or the steam purge temperature will be lower than 200 °C) in industry area. The maximum maintaince temperature will be up to 150 °C . No matter whether the pipeline is overhead or buried installation, MVH heating cable can maintain the temperature and phase structure of the medium in the pipeline or vessel. MVH heating cable is certified by IECEx,ATEX for ex-proof application, as well as to be used in the area which is defined according relative standard



The extruded core tape, which made by parallel tinner copper bus wire and PTC semiconductor polymer heating material, and inner insulation layer of fluoropolymer are added to tinned copper braid and the outer jacket form a complete structure of MVH heating cable, in which the outer jacket can be made of fluoropolymer material.

- According to the characteristics of automatic adjustment of power output based on ambient temperature, it can avoid overheating or burning on heating cable even in the case of overlapping installation; Simultaneously this feature can increase the efficiency of the heat tracing system and reduce energy consumption
- It is allowed to cut arbitrarily within the interval specified by the maximum circuit length and connect with compliance accessories
- It has a complete series of accessory, including standard power box, splice/tee connection box and end seal box etc, which can ensure the long service life of the heating system.
- CSA (CAN, USA) Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.

MODEL	WATTS	VOLTAGE
5MVH1, 5MVH2	5	120V/240V
10MVH1, 10MVH2	10	120V/240V
15MVH1, 15MVH2	15	120V/240V
20MVH1, 20MVH2	20	120V/240V



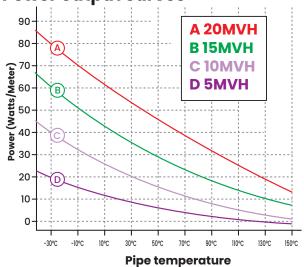
SPECIFICATION					
Nominated Voltage	120V / 240V				
Maximum maintaince temperature:	+150 °C (302 °F)				
Maximum intermittent exposure temperature:	+200 °C (392 °F)				
Temperature classification:	Т3				
IP level:	IP66/67				
Minimum installation temperature:	-60 °C (-76 °F)				
Minimum bending radius:	30mm (1.2 in.)				
Nominated power output @10 C:	5W/ft, 10W/ft, 15W/ft, 20W/ft				
Dimension:	CT: 12.36mm(W)×4.76mm(T) / 0.5 in. x 0.2 in.				
Approvals	CSA / IECEX / EX				



12.5 mm MVH high temperature self-regulating heating cable



Power output curves



	Adjustment Factors						
	Power	Output	Circuit	Length			
	208V	277V	208V	277V			
5MVH2	0.87	1.07	0.99	1.08			
10MVH2	0.88	1.08	0.99	1.06			
15MVH2	0.88	1.08	0.98	1.06			
20MVH2	0.86	1.07	1.00	1.08			

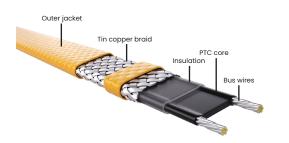
	Start-up	5MVM		10MVM		15MVM		20MVM	
CB Size	temperature	120V	240V	120V	240V	120V	240V	120V	240V
	° C (°F)	ft	ft	ft	ft	ft	ft	ft	ft
	10 (50)	219	438	134	294	111	211	103	157
	0 (32)	208	417	134	264	111	208	99	153
15	-10 (14)	191	383	111	240	111	190	87	142
15	-20 (-4)	177	354	101	209	110	176	77	133
	-30 (-22)	165	331	89	193	106	164	72	125
	-40 (-40)	154	308	77	178	103	152	68	118
	10 (50)	264	527	134	366	111	263	103	196
	0 (32)	259	518	134	339	111	260	103	191
20	-10 (14)	238	476	134	308	111	238	103	178
20	-20 (-4)	220	440	134	281	111	220	103	166
	-30 (-22)	205	411	134	255	108	205	97	156
	-40 (-40)	191	383	134	229	106	191	92	147
	10 (50)	294	589	134	421	111	346	103	245
	0 (32)	288	575	134	407	111	325	103	238
05	-10 (14)	267	534	134	380	111	297	103	222
25	-20 (-4)	255	510	134	325	111	275	103	208
	-30 (-22)	245	791	134	304	111	256	103	196
	-40 (-40)	236	472	134	283	111	238	103	184
	10 (50)	305	609	134	421	111	346	103	308
	0 (32)	305	609	134	421	111	346	103	305
00	-10 (14)	305	609	134	421	111	346	103	284
30	-20 (-4)	305	609	134	401	111	325	103	266
	-30 (-22)	305	609	134	385	111	315	103	250
	-40 (-40)	305	609	134	370	111	305	103	235
	10 (50)	305	609	134	421	111	346	103	308
	0 (32)	305	609	134	421	111	346	103	308
40	-10 (14)	305	609	134	421	111	346	103	308
40	-20 (-4)	305	609	134	421	111	346	103	308
	-30 (-22)	305	609	134	421	111	346	103	301
	-40 (-40)	305	609	134	421	111	346	103	294





12.5 mm MVU Ultra-High temperature self-regulating heating cable

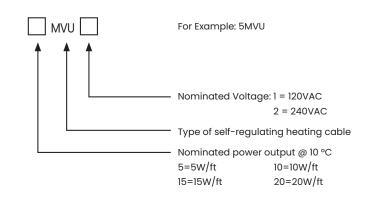
Drexma MVU Ultra-high temperature self-regulating heating cable can be used for ultra high continuous opertion temperature (up to 210 °C), also focus on the freeze protection and process temperature maintaince application, HTU+ heating cable can withstand the exposure temperature up to 260 °C, including intermittent or continuous high temperature steam purge. In another way HTU+ heating cable can be installed at the minimum ambient temperature of -60 °C, and there will be still high power output under high temperature condition. All of above are considered to ensure the completion of reaction or cystallization process in the production of petro-chemical and coal-chemical industry.



The extruded core tape, which made by parallel nickel-plate copper bus wire and PTC semiconductor polymer heating material, and inner insulation layer of fluoropolymer are added to Nickel-plated copper and the outer jacket form a complete structure of MVU heating cable, in which the outer jacket can be made of fluoropolymer material.

- According to the characteristics of automatic adjustment of power output based on ambient temperature, it can avoid overheating or burning on heating cable even in the case of overlapping installation; Simultaneously this feature can increase the efficiency of the heat tracing system and reduce energy consumption.
- It is allowed to cut arbitrarily within the interval specified by the maximum circuit length and connect with compliance accessories.
- It has a complete series of accessory, including standard power box, splice/tee connection box and end seal box etc, which can ensure the long service life of the heating system.
- Ultra-high operating temperature and withstand temperature, as well as high output power under high temperature conditions, ensure that the economic benefits can be maximized in relevant application environments.
- CSA (CAN, USA) Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.

MODEL	WATTS	VOLTAGE
5MVU1, 5MVU2	5	120V/240V
10MVU1, 10MVU2	10	120V/240V
15MVU1, 15MVU2	15	120V/240V
20MVU1, 20MVU2	20	120V/240V
25MVU1, 25MVU2	25	120V/240V
30MVU1, 30MVU2	30	120V/240V



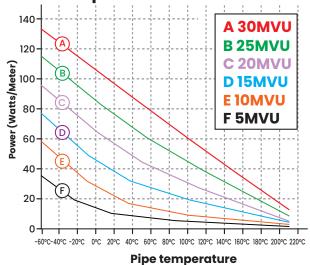
SPECIFICATION						
Nominated Voltage	120V / 240V					
Maximum maintaince temperature:	+210 °C (410 °F)					
Maximum intermittent exposure temperature:	+260 °C (500 °F)					
Temperature classification:	Т2					
IP level:	IP66/67					
Minimum installation temperature:	-60 °C (-76 °F)					
Minimum bending radius:	30mm (1.2 in.)					
Nominated power output @10 C:	5W/ft, 10W/ft, 15W/ft, 20W/ft					
Dimension:	CT: 12.36mm(W)×4.76mm(T) / 0.5 in. x 0.2 in.					
Approvals	CSA / IECEX / EX					



12.5 mm MVU Ultra-High temperature self-regulating heating cable



Power output curves



	Adjustment Factors						
	Power	Output	Circuit	Length			
	208V	277V	208V	277V			
5MVU2	0.87	1.07	0.98	1.06			
10MVU2	0.88	1.08	0.98	1.06			
15MVU2	0.88	1.08	0.98	1.08			
20MVU2	0.86	1.08	0.98	1.08			
225MVU2	0.86	1.07	0.98	1.08			
30MVU2	0.86	1.07	0.98	1.08			

CB Size	Start-up temperature °C(°F)	5MVU		10MVU		15MVU		20MVU		25MVU		30MVU	
		120V	240V	120V	240V	120V	240V	120V	240V	120V	240V	120V	240V
		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
15	10 (50)	228	456	153	306	110	219	81	163	71	141	59	118
	0 (32)	217	433	137	274	108	217	79	159	67	135	56	112
	-10 (14)	199	398	125	249	99	198	74	148	64	129	54	107
15	-20 (-4)	184	368	109	217	92	183	69	138	61	123	51	95
	-30 (-22)	172	344	101	201	85	171	65	130	58	118	49	121
	-40 (-40)	160	321	93	185	79	159	61	122	56	113	47	148
	10 (50)	274	548	191	381	137	274	102	204	88	177	74	141
	0 (32)	270	539	176	353	135	271	99	198	84	169	70	134
20	-10 (14)	248	495	160	321	124	248	92	185	80	161	67	129
20	-20 (-4)	229	458	146	292	114	229	87	173	77	154	64	118
	-30 (-22)	214	428	132	265	106	213	82	163	74	147	61	151
	-40 (-40)	199	398	119	239	99	198	77	153	71	141	59	184
	10 (50)	306	613	219	438	180	360	127	254	110	221	92	176
	0 (32)	299	598	212	424	169	338	124	248	105	211	88	168
25	-10 (14)	278	556	198	395	155	309	116	231	100	201	84	161
25	-20 (-4)	265	531	169	338	143	286	108	216	96	192	80	148
	-30 (-22)	255	511	158	316	133	267	102	203	92	184	77	192
	-40 (-40)	246	492	147	294	124	248	96	191	88	177	74	236
	10 (50)	317	634	219	438	180	360	160	321	141	282	118	236
	0 (32)	317	634	219	438	180	360	159	318	135	270	112	225
30	-10 (14)	317	634	219	438	180	360	148	296	129	257	107	215
30	-20 (-4)	317	634	208	417	169	338	138	277	123	246	103	206
	-30 (-22)	317	634	200	401	164	327	130	261	118	236	99	197
	-40 (-40)	317	634	192	385	159	317	122	245	113	226	95	189
	10 (50)	317	634	219	438	180	360	160	321	148	297	136	272
	0 (32)	317	634	219	438	180	360	160	321	148	297	136	272
40	-10 (14)	317	634	219	438	180	360	160	321	148	297	134	269
40	-20 (-4)	317	634	219	438	180	360	160	321	148	297	129	257
	-30 (-22)	317	634	219	438	180	360	156	313	144	289	123	246
	-40 (-40)	317	634	219	438	180	360	153	306	141	282	118	236

CONTROLLERS

	Item	Description	CND \$					
ETI								
STACK MAN	Tracon FPT-130 (25169)	Single-Point Freeze Protection Control; GFEP, CM, 100, 277 VAC, 30 A	1,174.25 \$					
TAKEN SYLDS	Tracon GPT-130 (25170)	Tracon Point Microprocessor–Based Heat–Trace Temperature Controller Thermostat - Built in 30 amp relay with a 30mA GFEP - Operates heaters at temperature setpoints from -99.9F to 999F	1,566.25 \$					
GING FS	Tracon GPT-230 (25171)	Tracon Dual Channel Point Microprocessor Based Temperature Controller Thermostat with GFEP. Operates heaters at temperature setpoints from -99.9F to 999F	2,546.25 \$					
	A421-AEC-02C	Electronic Temperature Control, 10 Amps, 24V - 120V/208V/240V	350.00 \$					
	A19QSC-4C	Electromechanical temperature control, remote bulb with 20 feet capillary - 22 Amps, 24V - 120V/208V/240V	350.00 \$					
		BARKSDALE						
	FL-TPR-LIN- 3X-Q10	Exterior thermostat for pipe freeze protection controller (wet envrionnment)	495.00 \$					
		MEITAV-TEC						
10 mm	FPC-02-120V FPC-02-240V	Freeze protection controller, 1 x 30 amps, 208/240 Volts, with GFEP protection	1,015.00 \$					
	FPC-02-120V-OD-AB FPC-02-240V-OD-AB	Freeze protection controller, 1 x 30 amps, 208/240 Volts, with GFEP protection, with Modbus & BACnet communication capability	2,095.00\$					
	FPC-02-120V-OD FPC-02-240V-OD	Freeze protection controller, 1 x 30 amps, 208/240 Volts, with GFEP protection, with internal heating for outdoor installation	1,138.00 \$					
• II	Pyrobox3- with Pyrocon19-AB	Power management electrical box, 4 x 30 amps/up to 277 volts contactors, with ground fault	4,159.00 \$					
4	Pyrosens-AB	stand alone aerial sensor with Modbus & BACnet interface	875.00 \$					
	Pyrogutter-AB	stand alone gutter sensor with Modbus & BACnet interface	963.00 \$					
O	Pyroground-AB	stand alone ground sensor with Modbus & BACnet interface	1,720.00 \$					

ACCESSORIES



ETI-ES
End seal



265^{\$}



Splice Connection CND\$



CND\$
195\$



ETI-TCTee Connection

CND \$





Class I, Div 2, Groups B, C, D; Class II, Div. 2, Groups E, F, G; Class III.