

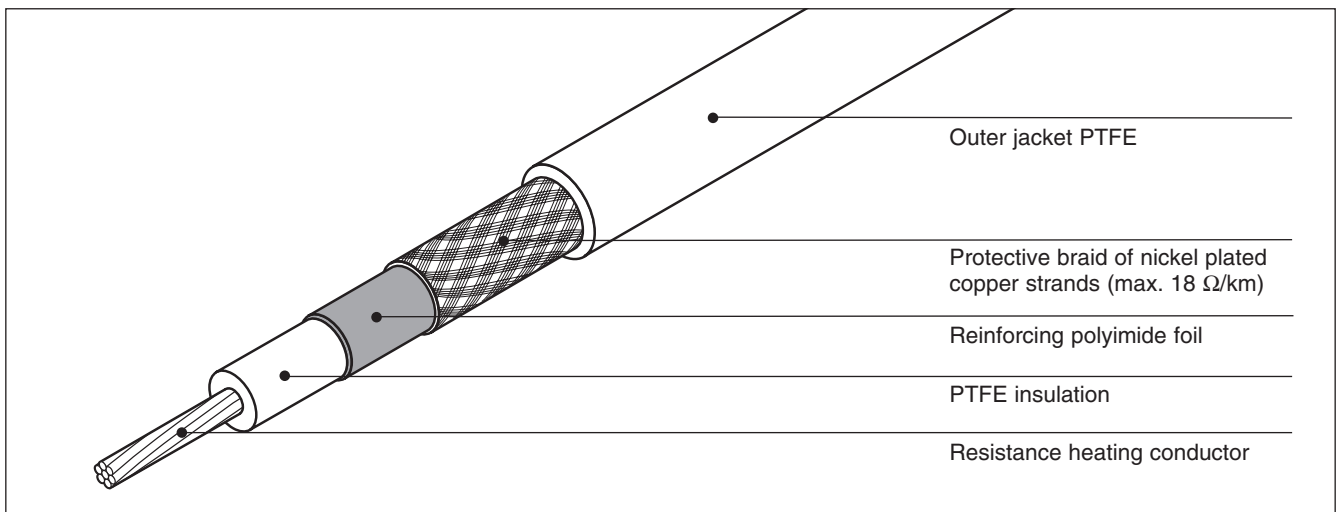
Polymer Insulated (PI) Series Resistance Heating Cable

XPI is a polymer insulated (PI) series heating cable, suitable for use in hazardous areas (ATEX). It has been designed for use in freeze protection and temperature maintenance applications of pipes, tanks and other equipment. XPI is an economical solution for many heat tracing applications, especially for pipe lengths beyond the maximum circuit lengths of parallel heating cables (e.g. 250m).

The selection of PTFE as an insulation material for the conductor and the outer insulation as well as an additional wrap of a polyimide foil makes XPI a very safe and reliable product. It provides highest chemical withstand and mechanical strength, in particular at elevated temperatures. XPI heating cables can be used for temperatures up to 260°C (continuous) and 300°C (intermittent short-term exposure).

XPI is easy to install, because of the high flexibility of the cable and the printed meter-marks. Tyco Thermal Controls offers XPI heating cables in a very wide range of resistances, starting from 0.8 Ω/km up to 8000 Ω/km as well as a complete product range of components for the connection and splicing of the cables.

Heating cable construction



Application

Area classification	Hazardous area, Zone 1 or Zone 2 (Gas) or Zone 21 or Zone 22 (Dust) Ordinary
Chemical resistance	Organic and inorganic corrosives

Approvals

Manufactured in accordance with VDE 0253
 System: PTB 03 ATEX 1218X
 II 2 G/D EEx e II T6 to T2 IP 65 T 290°C...T 80°C
 Bulk cable: PTB 03 ATEX 1101 U
 II 2 G/D EEx e II T_p 260°C

Technical data

Max. withstand temperature	260°C (continuous), 300°C (power off, max 1000 h)
Min. installation temperature	-70°C
Min. bending radius	2.5 x cable diameter for cable diameter ≤ 6 mm 6 x cable diameter for cable diameter > 6 mm
Max. power output	30 W/m (typical value, depending on application)
Max. supply voltage	450/ 750 V AC (U ₀ / U)
Min. spacing	20 mm
Isolation test voltage	3 kV AC

XPI heating cable references

Order Reference	Nominal resistance [Ω / km @ 20°C]	Temp. coefficient [x 10 ⁻³ / K]	Outer diameter [mm nom.]	Nom. weight [kg/km]	Order Number PN
XPI-0,8	0.8	3.9	12.1	398	1244-000189
XPI-1.1	1.1	3.9	10.3	303	1244-000201
XPI-1.8	1.8	3.9	8.8	206	1244-000182
XPI-2.9	2.9	3.9	7.1	142	1244-000202
XPI-4.4	4.4	3.9	6.3	112	1244-000190
XPI-7	7.0	3.9	5.7	83	1244-000203
XPI-10	10	3.9	5.4	73	1244-000204
XPI-11.7	11.7	3.9	5.2	62	1244-000183
XPI-15	15	3.9	5.1	58	1244-000191
XPI-17.8	17.8	3.9	4.9	55	1244-000178
XPI-25	25	1.9	4.9	55	1244-000192
XPI-31.5	31.5	1.3	5.3	64	1244-000205
XPI-50	50	1.3	4.9	55	1244-000184
XPI-65	65	1.3	4.8	50	1244-000206
XPI-80	80	0.7	5.1	58	1244-000193
XPI-100	100	0.4	5.2	63	1244-000207
XPI-150	150	0.4	4.9	55	1244-000185
XPI-180	180	0.25	4.7	49	1244-000194
XPI-200	200	0.4	4.8	50	1244-000195
XPI-320	320	0.25	4.9	53	1244-000653
XPI-380	380	0.25	4.8	51	1244-000180
XPI-480	480	0.25	4.7	48	1244-000208
XPI-600	600	0.25	4.5	46	1244-000196
XPI-700	700	0.25	4.5	44	1244-000186
XPI-810	810	0.04	4.6	48	1244-000209
XPI-1000	1000	0.04	4.5	46	1244-000197
XPI-1440	1440	0.04	4.4	43	1244-000211
XPI-1750	1750	0.04	4.3	41	1244-000198
XPI-2000	2000	0.0	4.6	47	1244-000187
XPI-3000	3000	0.0	4.4	43	1244-000212
XPI-4000	4000	0.0	4.2	40	1244-000199
XPI-4400	4400	0.0	4.3	41	1244-000181
XPI-5160	5160	0.0	4.3	40	1244-000654
XPI-5600	5600	0.0	4.2	39	1244-000188
XPI-7000	7000	0.0	4.2	38	1244-000213
XPI-8000	8000	0.0	4.2	38	1244-000200

Resistances < 31.5 Ω / km: Please consider the cold/warm resistance change.

Recommended cold lead cables for XPI

Nom. cross section [mm ²]	Current rating [A]	Outer diameter [mm nom.]	Nominal resistance [Ω /km @ 20°C]	Temperature coefficient [x 10 ⁻³ /K]	Order reference	Order number PN
2.5	32	5.7	7.0	3.9	XPI-7	1244-000203
4	42	6.3	4.4	3.9	XPI-4.4	1244-000190
6	54	7.1	2.9	3.9	XPI-2.9	1244-000202
10	73	8.8	1.8	3.9	XPI-1.8	1244-000182
16	98	10.3	1.1	3.9	XPI-1.1	1244-000201
25	129	12.1	0.8	3.9	XPI-0.8	1244-000189

Resistance tolerance: +10/-5% as per IEC

Notes:

Delivery length depends on type of resistance and is in any case limited by max. weight of 120 kg/ spool, respectively 1000 m/ run.

Not all resistances are standard items and may such not be in stock. Contact Tyco Thermal Controls to confirm lead time.

Tyco Thermal Controls requires the use of a 30 mA residual current device to provide maximum safety and protection from fire. Where design results in a higher leakage current, a maximum 300 mA residual current device may be used. All safety aspects need to be proven.