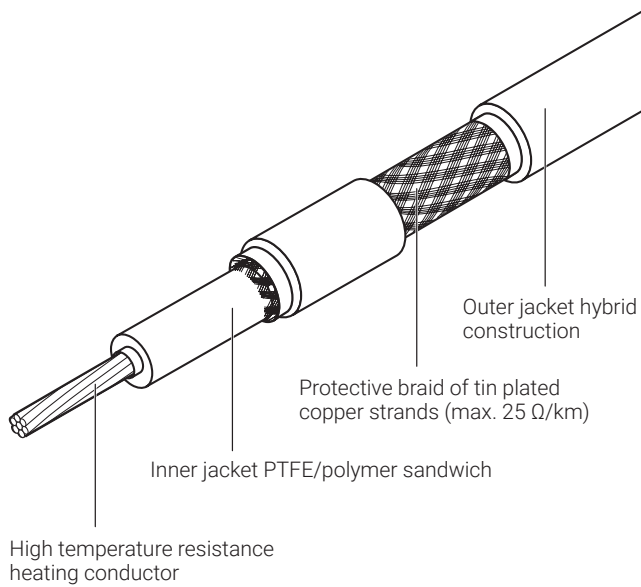


## CONNECT AND PROTECT

### Polymer insulated (PI) series resistance heating cable

#### HEATING CABLE CONSTRUCTION



nVent RAYCHEM XPI-F is a polymer insulated (PI) series heating cable, suitable for use in ordinary and hazardous areas. It has been designed for freeze protection and low temperature maintenance applications on pipes, tanks and other equipment.

XPI-F offers an economical solution for a wide variety of heat-tracing applications, in particular for pipe lengths beyond the maximum circuit lengths of parallel heating cables.

The inner insulation is a sandwich construction of PTFE and PE, the outer insulation is a hybrid PE construction. The use of PTFE in the construction makes it very easy to terminate, provides flexibility, eliminates internal mechanical and thermal stress and makes XPI-F a very safe and reliable product. The PE provides a good chemical withstand and excellent mechanical strength.

XPI-F heating cables can be used for temperatures up to 90°C (continuous) and 100°C (intermittent short-term exposure), making it an ideal PI heating cable for transfer lines and large tanks with limited temperature requirements.

XPI-F is easy to install and has printed meter-marks. nVent offers XPI-F heating cables in a wide range of resistances, starting from 1.8 Ω/km up to 200 Ω/km as well as a complete range of components for connection and splicing.


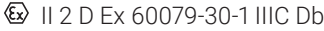


#### APPLICATION

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

## APPROVALS

Compliant to IEC EN 60079-0, IEC IEEE 60079-30-1, EN 60079-30-1

System (heating units) PTB 08 ATEX 1102X  
  
  
 IECEX PTB 08.0051X  
 Ex eb 60079-30-1 IIC T2...T6 Gb  
 Ex tb 60079-30-1 IIIC T260...T90°C Db  
 TC RU C-BE.ИМ43.В.01854  
 ООО «ТехИмпорт»  
 Ambient temp range: -60°C...+56°C  
 1Ex e IIC T4 Gb X  
 Ex tb IIIC T110°C Db X  
 Made in Germany

Bulk cable Baseefa15ATEX0158U  
  
  
 IECEX BAS 15.0105U  
 Ex 60079-30-1 IIC Gb  
 Ex 60079-30-1 IIIC Db  
 TC RU C-BE.ИМ43.В.01854  
 ООО «ТехИмпорт»  
 Ambient temp range: -60°C...+56°C  
 1Ex e IIC T4 Gb X  
 Ex tb IIIC T110°C Db X IP66  
 Made in Germany  
 Ex e IIC Gb

\* Temperature classification (T-rating) has to be established by using the principles of stabilised design or the use of a temperature limiting device.  
 Use TraceCalc design software or contact nVent.

## TECHNICAL DATA

Max. exposure temperature	90°C (power off, continuous), 100°C (power off, intermittent for max 1000 h)
Min. installation temperature	-60°C
Min. bending radius at -55°C	7.5 x cable diameter
Max. power output	20 W/m (typical value, depending on application)
Nominal voltage	Up to 300/500 Vac (U0/U)
Min. impact resistance	4 Joule (as per EN 60079-30-1)
Min. clearance	20 mm between heating cables

## XPI-F HEATING CABLE REFERENCES

Order Reference	Nominal resistance [Ω/km @ 20°C]	Temp. coefficient [x 10 <sup>-3</sup> /K]	Outer diameter [mm nom.]	Nom. Weight (kg/km)	Part Number PN
XPI-F-1.8	1.8	4.3	9,5	208	1244-018798
XPI-F-2.9	2.9	4.3	7,8	143	1244-018799
XPI-F-4.4	4.4	4.3	7,2	112	1244-018800
XPI-F-7	7	4.3	6,6	83	1244-018801
XPI-F-10	10	4.3	6,5	76	1244-018802
XPI-F-11.7	11.7	4.3	6,4	65	1244-018803
XPI-F-15	15	4.3	6,1	61	1244-018804
XPI-F-17.8	17.8	4.3	6	57	1244-018805
XPI-F-25	25	3	6	57	1244-018806
XPI-F-31.5	31.5	1.3	6,4	67	1244-018807
XPI-F-50	50	1.3	6	57	1244-018808
XPI-F-65	65	1.3	5,7	53	1244-018809

Order Reference	Nominal resistance [Ω/km @ 20°C]	Temp. coefficient [ $\times 10^{-3} / K$ ]	Outer diameter [mm nom.]	Nom. Weight (kg/km)	Part Number PN
XPI-F-80	80	0.7	6,1	61	1244-018810
XPI-F-100	100	1.3	5,4	67	1244-018811
XPI-F-150	150	0.4	5,9	48	1244-018812
XPI-F-200	200	0.4	5,6	53	1244-018814

Resistance tolerance: +10/-5%. In particular for cables < 31.5 Ω/km the resistance of the conductor materials is a function of temperature and the change must be considered for design purposes.

#### RECOMMENDED COLD LEAD CABLES FOR XPI-F (COLD LEAD CABLES FROM XPI CAN BE USED ALTERNATIVELY)

Nom. cross section [mm <sup>2</sup> ]	Current rating [A]	Outer diameter [mm nom.]	Nominal resistance [Ω/km @ 20°C]	Temperature coefficient [ $\times 10^{-3} / K$ ]	Order reference	Part number PN
2.5	32	6.6	7	4.3	XPI-F-7	1244-018801
4	42	7.2	4.4	4.3	XPI-F-4.4	1244-018800
6	54	7.8	2.9	4.3	XPI-F-2.9	1244-018799
10	73	9.5	1.8	4.3	XPI-F-1.8	1244-018798

**Notes:** Delivery length depends on type of resistance and is limited by max. weight of 120 kg/spool, respectively 1000 m/run.

To ensure practical and safe on-site handling, it is strongly recommended to limit spool lengths to 25 - 30 kg. Not all resistances are standard items and as such may not be in stock. Contact nVent to confirm lead time. nVent requires the use of a 30 mA residual current device to provide maximum safety and protection from fire.

Where design results in higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the trace heater supplier or alternatively, the next common available trip level for non adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

#### North America

Tel +1.800.545.6258  
 Fax +1.800.527.5703  
 thermal.info@nVent.com

#### Europe, Middle East, Africa

Tel +32.16.213.502  
 Fax +32.16.213.604  
 thermal.info@nVent.com

#### Asia Pacific

Tel +86.21.2412.1688  
 Fax +86.21.5426.3167  
 cn.thermal.info@nVent.com

#### Latin America

Tel +1.713.868.4800  
 Fax +1.713.868.2333  
 thermal.info@nVent.com



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