

Experts for your systems

Electrical Trace Heating




- Quality • Reliability • Delivery reliability
- Our knowledge for your application

ILLw...(CT/CF)

Electrical heating tape for frost protection or temperature maintenance of pipework and vessels in safe or hazardous locations.

Self-Regulating Heating Tape

85°C

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Will not overheat or burnout, even when overlapped
- Can be cut to length with no wastage
- Full range of controls, accessories and approvals
- Available for 220-277V AC (110-120V AC on request)
- 

Description

Quintherm ILLw is an industrial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework and vessels up to 85°C.

It can be cut-to-length at site and exact piping lengths can be matched without any complicated design considerations.

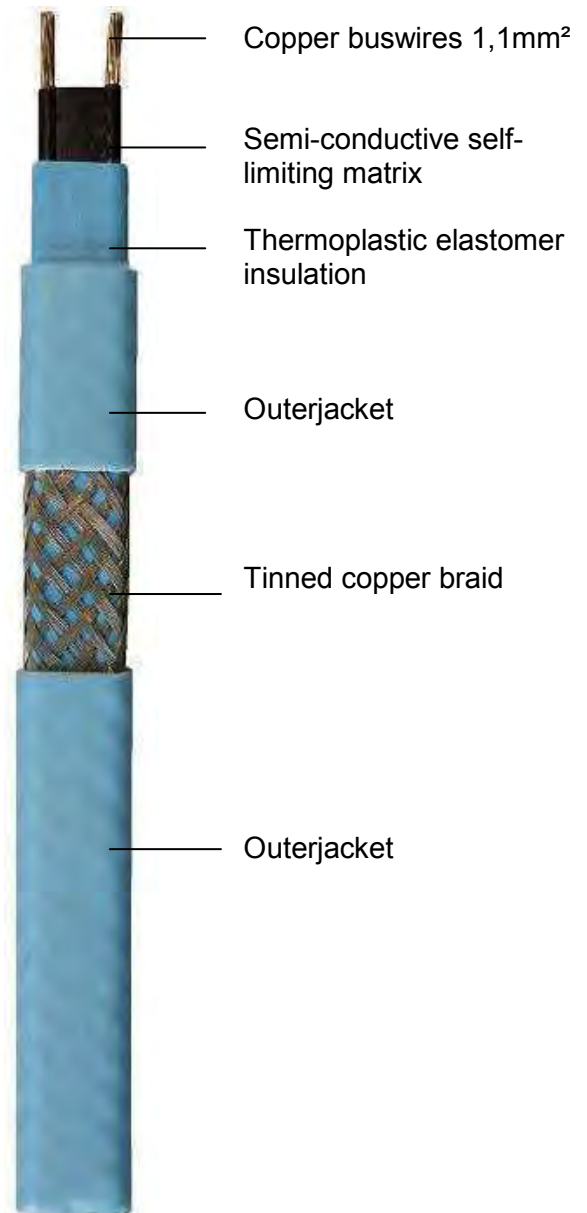
ILLw is approved for use in non-hazardous, hazardous and corrosive environments to world-wide standards.

Its self-regulating characteristics improve safety and reliability. ILLw will not overheat or burnout, even when overlapped upon itself. Its power output is self-regulated in response to the pipe temperature.

The installation of Quintherm ILLw is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.

Options

- ILLw6 Basic heating tape without braiding and without outerjacket.
- ILLw6 C Tinned copper braid providing mechanical protection or where traced equipment does not provide an effective earth path. eg. Plastic pipework.
- ILLw6 CT Thermoplastic outerjacket over tinned copper braid provides additional protection.
- ILLw6 CF Fluoropolymer outerjacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.



IPH...(NF)

Electrical heating tape for process temperature maintenance of pipework and vessels in safe or hazardous areas.



Constant Wattage Heating Tape

285°C

- Temperature resistant up to 285°C
- Can be cut to length with no wastage
- Outputs available up to 70W/m
- Full range of controls, accessories and approvals
- Available in 220..240V AC (110..120V AC on request)
-

Description

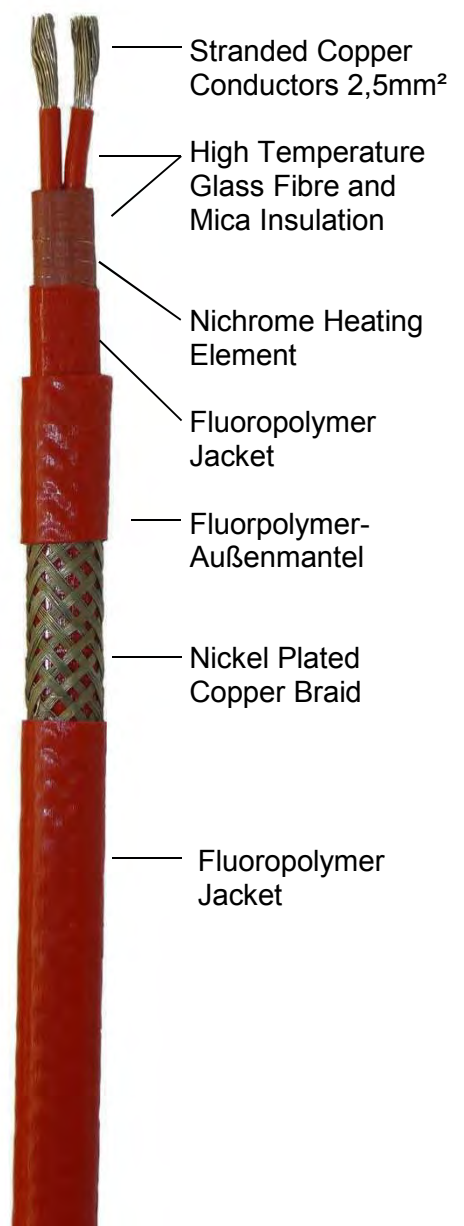
Quintherm IPH is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipework and vessels.

It can be cut-to-length at site and can replace mineral insulated cables for applications where the cut-to-length feature or field fabricated heating cable is preferred.

Quintherm IPH is approved for use in hazardous, safe and corrosive environments.

Because of the special construction with heating zones no additional cold lead is required. From cut point to the next heating wire bonding point the heating cable remains cold and serves as a cold lead.

The installation of IPH heating tape is quick and simple and requires few special skills and tools. Termination and power connection components are provided in convenient kits.



Options

IPH..C Nickel plated copper braid providing mechanical protection or where traced equipment does not provide an effective earth path.


IPH..NF Fluoropolymer jacket over nickel plated copper braid provides protection where corrosive chemical or vapours may be present.

IPS...A

Electrical heating cable for process temperature maintenance of pipework and vessels in safe or hazardous area.

Constant Wattage Heating Tape

425°C

- Withstand temperatures up to 425°C
- Can be cut to length with no wastage
- Outputs available up to 150W/m
- Full range of controls, accessories and approvals
- Available for 220-277V AC (110-120V AC on request)
- 

Description

IPS is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipework and vessels.

It can be cut-to-length at site and can replace mineral insulated (MI) cables for applications where the cut-to-length feature or field fabricated heating cable is preferred.

IPS is approved for use in non-hazardous, and hazardous areas to world-wide standards.

Because of the special construction with “heating zones” no additional cold lead is needed. From cut point to the next heating wire bonding point the heating cable remains cold and serves as cold lead.

The installation of IPS heating tape is quick and simple and requires few special skills or tools. Termination and power connection components are all provided in convenient kits.

IPS is jacketted in a continuous aluminium extrusion for maximum mechanical strength, even after severe process upsets.



Compact termination kit for self-limiting heating cables with terminal block for use in hazardous areas

Termination kit Ex

- Temperature resistant up to +180°C
- Current rating 20A
- For heating cables ILL, ILH et al.
- Very solid because of brass nickel plated
- Very compact design
- **NEW** T-branch



Description

The IAL8Ex< system is a very easy and fast to install connection kit for connecting power supply cable as well as heating cable, end termination, based on an approved screw connection. Due to the very compact design, it is possible to mount the parts directly on the surface of the pipe/tank/enclosure underneath the insulation. There is no blow-heater or special skills required for assembling. Further on branches can easily realized with the T-branch.



Technical data

Temperature range:	-60< 180°C
Cable capacity of supply:	7,0 - 10,5mm
Cable cap. Heating cable:	Type S: 6x12mm Type B: 7x14mm
Max. current rating:	20A AC
Supply voltage:	12< 400V AC
Terminal diameter:	2,5mm ²
Protection class:	IP66
Length supply / end:	110 mm / 70 mm
T-branch (L/W)	125 mm / 60 mm
Diameter:	25mm (SW24)
Weight supply / end / T:	168g / 116g / 290g
Material:	Brass nickel plated

Further Information

Follow instructions of installation manual!

Order information

Material number:

example:	IAL8EX M K S S
Quintherm IAL8EX	
Mid temperature (-40..+135°C) (M)	
High temperature (-60..+180°C) (H)	
Terminal block (K)	
Small heating cables 6x12mm - ILL, ILH, ILS (S)	
wide heating cables 7x14mm - ILLW, ILMw (B)	
Connection and termination set (S)	
Connection set, supply heating cable (A)	
Termination set (E)	
Connection set, heating cable – heating cable (V)	
T-branch (T)	

Approval

EPS 12 ATEX 1457X
Gost RU C-DE.ME92.B.00026

Marking

- II 2G Ex e IIC T6/T5/T4/T3 Gb
- II 2D Ex tb IIIC T195°C Db IP65

Alternative products

IAL3Ex< : Connection and termination kit for self-limiting heating cables in heat shrink technology

Additional products

ILL, ILH< : self-limiting parallel heating cables
AG101Ex: Ex-junction box (different types)




IAL1...

Termination and connection set for hazardous and non-hazardous areas.



Termination Set Ex

- For heating cables up to 150 / 200°C
- For 1 or 2 heating circuits
- No damage by sheet metal insulation
- No mounting plate necessary
- No mounting angle necessary
- 

Description:

The IAL1< Connection and Termination set consists of a direct entry sealed termination unit, a Junction Box and all necessary accessories. With this assembly no mounting plate or mounting angle is needed.

Function:

It has been designed specifically to reduce the risk of damage to heating tapes at termination points, thus avoiding the need to expose the heating tape as it emerges from the thermal insulation for connection into the junction box.



Technical Data:



Dimension Junction Box:	122x120x90mm (WxHxD)
Dimension Mounting unit:	115x110x42mm (WxHxD)
Max. Temperature Enclosure:	Non-Ex: -55°C..80°C T6: -55°C..50°C T5: -55°C..55°C T4: -55°C..60°C
Max. Temp. Mounting unit:	Non-Ex: 180°C
Protection class:	IP66

Ordering Information

Example:	IAL1 S S 1
Quintherm IAL1	
For small heating cables (S)	
For wide heating cables (B)	
Set	
For 1 or 2 heating circuits	

Small heating cables: ILL (85°C), ILH (150°C)
Wide heating cables: ILLW (85°C), ILS (200°C)

Marking

-  II 2 GD
-  II 1 GD T6

Approvals

Enclosure: EPS 09 ATEX 1237
Mounting unit: SIRA 02 ATEX 3081U

Additional Products

Quintex offers a wide range of accessories like controllers, heating cables, termination kits, junction boxes etc.

Further Information


Please consult the installation instructions!



IAL3Ex HQSS

Termination Set in shrink technology for hazardous area.

Termination Set Ex

- Compact design
- Temperature resistant up to 180°C
- Flexible usage
- Applicable for ILH..CF and ILS..NF heating tapes
- Different sets separately available
- 

Description

The IAL3Ex HQSS contains a very flexible and space saving termination set and is used in hazardous areas.

The usage of a special temperature resistant FEP-Connection cable grants different application possibilities at very high temperatures.

This set is composed of connection and end seal parts. These are also separately available.



Specification

Max. ambient temperature:	180°C
Usable for following heating tapes:	ILH..CF ILS..NF
Length connection side:	140mm
Length end seal:	55mm

Marking

 II 2G Ex mb IIC T3

Approval

EPS 09 ATEX 1234 X

Further Information

Please consult the termination instructions!

Ordering Information

Part number:
IAL3Ex HQSS: Power connection and end seal in a set.

Alternative Products

Part number:
IAL4SS: Ex – Termination set for direct entry

Additional Products

Part number:
AG 101 Ex: Ex – Enclosure for up to 3 heating circuits.

ALF 25: FEP – Supply cable 3x2,5mm²

ISM...VA/CuNi (System QX-SH)

Electrical heating cable for temperature maintenance of pipework and vessels in safe or hazardous locations.



Constant Wattage Heating Cable

650°C

- Temperature resistant up to 650°C
- On site assembly possible.
- High chemical resistance
- Large Range of approvals
- Very high Power possible
- 

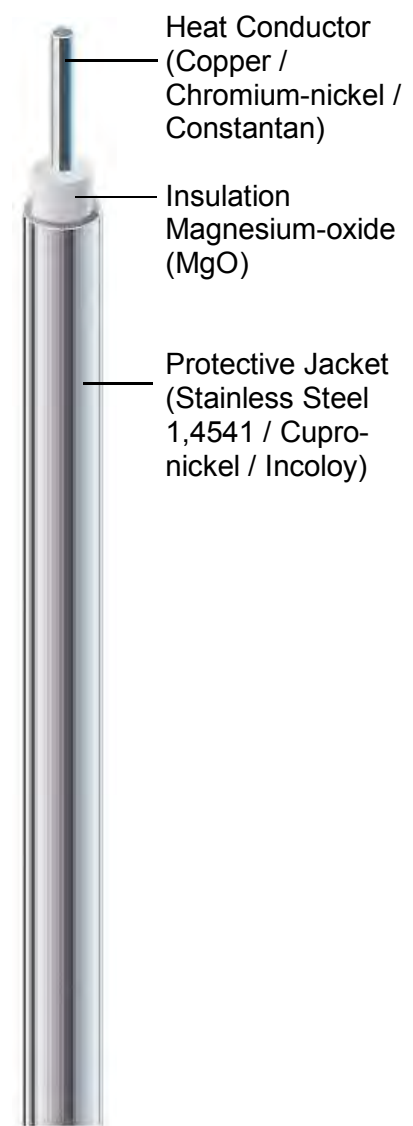
Description

The mineral-insulated heating cable ISM is due to their structure very sturdy and safe for use in industrial and hazardous environments. The different types of Jackets are highly resistant to chemical attack.

The specific resistance of ISM will cause the power output increases or decreases by changing the length of the heating cable.

The heating cable will be soldered or laser-welded with connection sleeves to special cold-ends (Standard length 1,2m).

Depending on the application and temperature requirements, various outer jackets made of stainless steel, Cupronickel or Incoloy are available.



Technical Data

Rating Voltage:	500V
Insulation testing Voltage:	>1,2kV
Material Heat Conductor:	Copper, Chromium-nickel, Constantan
Insulating Material:	Magnesium-oxide
Min. Installation Temp.:	-20°C
Min. Bending Radius:	3 x outer Dia. or 5 x outer Dia. (Ex)

Marking

System:  II 2G Ex eb II T1F T6

Approval

Component: on Request
System: EPS 10 ATEX 1304X

- Compact design
- High switching capacity
- Protection class IP68
- Small hysteresis
- Different temperature ranges available
- 

Description

The IRM2Ex is a mechanical bimetal thermostat. Because of the compact design and the high switching capacity it is well suited for frost protection applications with heating tapes as well as heating plates. The thermostat is moulded in a M20x1,5 cable gland and can be fitted in a junction box with ignition protection class Ex e.

Other temperature ranges are available on request.



Technical Data

Rated Voltage:	250V AC
Switching Pin:	1 NC 16A / 250V AC
Switching Points:	4°C On / 11°C Off
Switching Tolerance:	±3K
Protection Class:	IP68
Supply Cable:	400mm 3G1,5mm ²
Cable Gland:	M20x1,5 Nickelplated brass

Further Information

Please consult the installation instructions!

Ordering Information

Part number:
IRM2Ex: Ex-Mini-Thermostat for frost-protection applications.

Alternative Products

Part number:
IRM2Ex/AG: IRM2Ex Mini-Thermostat for 1-2 heating circuits + supply cable installed in glass-fibre reinforced polyester enclosure.

Marking:

 II 2G Ex mb IIC T6/5/4/3

Approval:

TÜV 08 ATEX 554135 X

IRB2M...Ex

Combination of Temperature-Controller and Limiter for use in hazardous area



Mechanical Controller Ex

- Compact design
- 16A/230V switching capacity
- Cross section 4/6mm²
- 4mm sensor diameter
- Resistant against chemical influences
- 

Description



The Ex-Controller-/Limiter devices of the IRB2M-Series are a combination of mechanical 2-point capillary temperature controller/limiter. The black glassfibre-reinforced polyester enclosure is very rugged and is used as a connector for single core heating cables. The combination of controller and limiter allows an easy and space-saving application for electrical trace heating in hazardous areas. The sensors with 4mm outer-diameter are particularly suitable for mounting on pipelines or containers.



Technical Data

Min. ambient temperature: -40°C
(-55°C on request)
Switching capacity: 16A/230V
(16A/400V and 25A/230V on request)
Temperature class: T6 at +50°C

Marking

 II 2G Ex ed IIC T6
 II 2D Ex tb IIIC T=80°C IP65

Approval

EPS 09 ATEX 1237

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

IRB2M-2050/0200Ex: Controller: -20..50°C
Limiter: 0..200°C

IRB2M0120/130190Ex: Controller: 0..120°C
Limiter: 130..190°C

IRB2M0200/130190Ex: Controller: 0..200°C
Limiter: 130..190°C

IRB2M0120/0200Ex: Controller: 0..120°C
Limiter: 0..200°C

IRB2M0200/0200Ex: Controller: 0..200°C
Limiter: 0..200°C

IRB2M50300/50300Ex: Controller: 50..300°C
Limiter: 50..300°C

Other temperature ranges on request.

IRE168DS

Electronic Temperature Controller for use in non-hazardous Area.



Electronic Controller non Ex

- Compact Design
- Multi-Voltage-Input
- 2-line Display (Set- and Process-Value)
- 4-20mA Output (Process-Value)
- Compatible with several temperature-sensors

Description

The IRE168DS will be engaged on DIN-Rail (35mm).

The Dimension of 69x85x62 mm allows an ideal utilization of the cabinet.

The controller is available as 2 point- or PID-controller. Different sensors can be fitted. The IRE168DS has all adjustment features that are required for electric heat-tracing with easy operation.

Furthermore you have Set- and Process-Value simultaneously on the 2- line Display.



Technical Data

Rating:	100-240V~ ± 10%
Switching-capacity:	1 change-over 16A 1 On-contact 8A
Switching-Accuracy:	0,5% of Scale Range +1 Digit at 25°C
Operating- / Storage-temperature:	-5..+55°C -20..+85°C
Temperature Range:	-200..+800°C
Dimension (l x h x w):	70x85x61mm
Wattage:	max. 4W

Further Information

Please consult the operation instructions!

Ordering Information

Part-Number:
IRE168DS: Electronic Controller 16+8A

Alternative Products

Part number:
IRM040b: Mechanical capillary tube-thermostat for usage direct on the object being heated.
(See Datasheet)

Further Products

Part number:
IRPT100: PT100 Temperature sensor
3-Wire

Quintherm QxV03: Distribution in breaker-box with 3-pole earth leakage circuit breaker, Fuses, Load-Conductor and Controller IRE168DS.
Completely pre-wired.



- For 4 or 8 Channels and up to 8 Zones
- Displays Set- and Process-value
- Multi Voltage Supply 100-240V
- Control: On-Off, P, PI, PD, PID and Auto-Tuning
- Input PT100 and other, Output as Relay and other
- 3 Alarm Outputs

Description

The Quintex IRE8x is a simple to operate Electronic Multi-Function Temperature Controller with various adjustment possibilities for usage in mid- and small-sized plants.

The Controller is available in 4/8 Channel Version. Control-Parameter can be automatically determined and set by Auto-Tuning.

For monitoring you can set 3 different Alarm Outputs.

There are a lot of variants for Sensors, Outputs and monitoring possibilities available.

The Controller will be delivered with pre-set for freeze-protection.



Technical Data:

Number of Channels:	4 / 8
Number of Zones:	8
Functions:	On-OFF, P, PI, PD, PID
Regulator Parameters:	Manual Input / Auto Tuning
Channel Functions:	Each Channel can be set independent
Inputs:	PT100 (Standard) Optional: - Thermocouple: K,J,R,S,B,E,N,T,U,L, and others. - Voltage: 0-5V, 0-10V, 1-5V - Current Transformer: 0-100A
Input Impedance:	1M Ω
Cycle Time:	1s
Temperature Range:	-199...+600°C (for PT100)
Outputs:	Relay (Standard) or SSR; Optional: TRIAC, 0-20mA, 4-20mA
Output Power:	Relay: 250V / 3A or SSR (Solid-State-Relay) with Pulse Output 0/12V, Load over 600I
Alarm Outputs:	3x Relay (max. 250V / 1A)
Alarm Functions:	15 Types
Communication:	based on EIA RS485 / RS422 / RS232C (Option)
Supply Voltage:	100-240VAC, 50-60Hz (Option 24VDC)
Power Consumption:	max. 12VA
Environment:	Temperature: 0-50°C, Humidity: 35-85% r
Dimension (LxWxD):	96x96x100mm

- Compact design
- Multi-Voltage-Input
- 2-line display (Set- and Process-Value)
- Installed in robust enclosure with window
- Compatible with several temperature-sensors
- 4-20mA Output (Process-Value)

Description

The Controller is installed in a glassfibre enhanced polyester enclosure, completely wired to clamps. Through the window you can see Set- and Process-Value anytime.

The Controller is available as 2 point- or PID-Controller. Different sensors can be fitted. The Controller has all adjustment features that are required for electrical heat-tracing with easy operation.

Furthermore you have Set- and Process-Value simultaneously on the 2- line Display.



Technical Data

Rating:	100-240V~ ± 10%
Switching-Capacity:	1 Change-Over 16A/230V 1 On-contact 8A/230V
Switching-Accuracy:	0,5% of Scale Range +1 Digit at 25°C
Cable Glands:	2xM20, 1xM12
Operating- / Storage-temperature:	-5..+55°C -20..+85°C
Temperature Range:	-200..+800°C
Dimension (l x h x w):	220x120x90mm
Wattage:	max. 4W

Further Information

Please consult the operation instructions!

Ordering Information

Part-Number:
IRE168 AG: Electronic Controller 16+8A in enclosure

Alternative Products

Part number:
IRM040b: Mechanical capillary tube-thermostat.
(See Datasheet)

Further Products

Part number:
IRPT100: PT100 Temperature sensor 3-Wire

Quintherm QxV03: Distribution in breaker-box with 3-pole earth leakage circuit breaker, Fuses, Load-Conductor and Controller IRE168DS. Completely pre-wired.

IRE33DS Exi

Electronic controller for trace heating for installation on DIN-rail TS35



Electronic Controller

- Compact design
- 7-segment display
- Temperature range 0°C..+450°C
- For 2/3/4 wired PT100
- Low alarm possible
- 

Description

The IRE33DS Exi is part of an electronic trace heating system device in safe area. The resistance thermometer will be installed in a hazardous area and is a component of the intrinsically safe circuit. The measurement value processing is micro-controller-operated.

If the line is interrupted or the resistance thermometer is not connected, the heating circuit will be opened. If there is no supply voltage, the energy supply for the circuit will be interrupted.

The temperature sensor IRE33DS Exi can be operated with all DIN 3440 industrial resistance thermometers PT100 DIN. The Ex-Protection thereby is not limited.




Technical Data

Supply voltage:	24 - 265V AC/DC
Measurement range:	0 .. +450°C
Switching capacity:	5A
Switching hysteresis:	1,5K
Ambient temperature:	-20A +50°C
Dimensions (WxHxD):	55 x 75 x 110mm
Power consumption:	ca. 2,5VA

Further Information

Please consult the installation instructions!

Marking

 II (2) G [Ex ib] IIC/IIB

Approval

TÜV 10 ATEX 555822

Ordering Information

Part number: IRE33DS Exi

 0044

IRPT100Ex/CF (10000)

PT100 Temperature Sensor certified for use in Hazardous Area.

Ex Temperature Sensor

- Compact design
- Very flexible due to the PTFE cable
- Up to 200°C
- 4-wire design
- According to latest standards
- 

Description

Because of the PTFE cable the IRPT100Ex/CF temperature sensor is very flexible.

Due to the short 60mm sensor the IRPT100Ex/CF can be fitted easily to almost every measuring point.

The wide temperature range of $> +200^{\circ}\text{C}$ also allows a wide range of applications.





Technical Data

Rating Voltage:	max. 60V
Measurement Range:	$> +200^{\circ}\text{C}$
Signal Circuit:	max. 10mA AC/DC
Sensor Diameter:	6mm
Sensor Length:	60mm
Supply Cable Length:	1,5m PTFE (or 10,0m for IRPT100Ex/CF 10000)
Measurement System:	4-wire

Ordering Information

Part number:	IRPT100Ex/CF
Part number:	IRPT100Ex/CF 10000 (with 10,0m PTFE cable)

Marking

 II 2GD Ex e II T1#T6
 II 2GD Ex tD A21 IP66 T 60°C

Approval

VTT 07 ATEX 010X

Additional Products


Part number:	
IRE168DS:	Electronic controller 2 relay 16+8A
AG 99 Ex:	Ex-Enclosure for PT100 temperature sensors



IH2 130 2 200

Self-Limiting Heating Plate certified for use in Hazardous Area.

Ex Heating Plate

- Self-Limiting characteristic
- Compact design
- Depending on version T3, T4, T5, T6
- Different versions available from 10W up to 1kW
- Uniform heat distribution
- 

Description

The Self-Limiting Heating Plate „Quintherm IH2 130 2 200“ is a new generation of heating plates. This compact heating plate has a uniform heat distribution over the whole surface.

By any installation position the heating plate is suitable very well for small cabinets and narrow rooms. Depending on size and output available for Ex-Temperature classes T3 – T6.

(Ambient temperature up to -55°C available on request)



Possible Applications

- Heating of Cabinets
- Condensation Prevention
- Heating of Pumps

and other typical Heating Plate applications.

Technical Data

Rating Voltage:	240V AC
Power Output:	ca. 130W at +5°C
Protection Class:	IP 65
Ambient Temperatures:	-40°C? +85°C
Temperature Class:	T4
Feeding Cable:	2m 3G1,5mm ² Radox
Measurements (lxbxh):	280 x 200 x 40mm
Installation Position:	any
Fuse Protection:	16A C-Characteristic
Weight:	ca. 4,3 kg



Ordering Information

Industrial Heating Plate	IH2	130	2	200
Output at +5°C				
Rating Voltage (240V)				
Length Feeding Cable (cm)				

Marking

 II 2 G Ex mb IIC T4

Approval

EPS 09 ATEX 1234X
GOST 'R' POCC DE. r505.BO3368
IECEX EPS 11.0001X

Additional Products

Part number:
IRM2Ex/AG: Frost Guard (see Datasheet)

Adhesive Tapes

Adhesive tapes for fixing heating cables and for a better heat transfer.

Mounting Accessories

Aluminium tape



Part number: ALK150

- Length: 50m
- Width: 50mm
- Temperature resistant: to 150°C
- Thickness: 30µm

Part number: ALK1 150m

- Length: 100m
- Width: 75mm
- Temperature resistant: to 150°C
- Thickness: 30µm

Polyester tape



Part number: PEK100

- Length: 50m
- Width: 19mm
- Temperature resistant: to 100°C
- Thickness: 16µm

Cloth adhesive tape



Part number: GEK130

- Length: 50m
- Width: 12mm
- Temperature resistant: to 130°C
- Thickness: 31µm

Glass fibre tape



Part number: GSK180 / GSK180B

- Length: 50m
- Width: GSK180: 12mm
- GSK180B: 19mm
- Temperature resistant: up to 200°C (short time up to 275°C)
- Thickness: 19µm