Erfahrung ist Zukunft

QUINT Ex®

Experts for your systems

Electrical Trace Heating

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

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Proviso

We reserve the right to make technical changes. Changes, errors, and literal errors do not justify any claim for damage compensation. For security components and systems, the relevant standards as well as the relevant operating and assembly instructions have to be followed.

This product catalog invalidates all previous catalogs.

Product Catalogue: Version 9.3

ILLw… /Qx

Electrical heating tape for frost protection or temperature maintenance of instrument lines, pipework or vessels in safe or hazardous area.

Self-Regulating Heating Tape Ex

85°C

- Automatically adjusts heat output in response to heated surface temperature.
- Can be cut to length with minimal wastage.
- Suitable for light industrial and commercial applications up to 85°C.
- Full range of terminations, controls. Accessories and approvals available.
- Will not overheat, even when overlapped.
- Available for 220…277V AC (110V…120V AC upon request)

Description

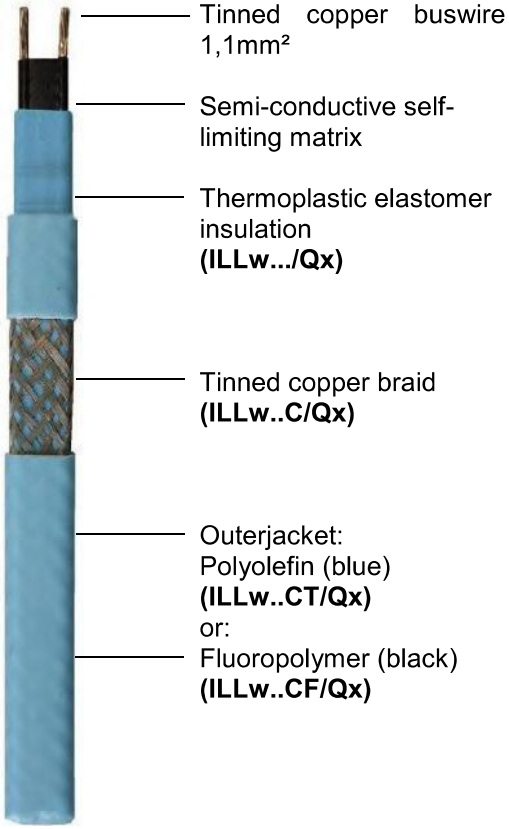
Quintherm ILLw is a light industrial/commercial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework or vessels in the construction and refrigeration industries up to and including 85°C which are not subject to steam cleaning.

It can be cut-to-length on site to match exact pipe lengths without any complicated design considerations.

ILLw is approved for use in non-hazardous, hazardous or 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 automatically self-regulated in response to pipe or heated surface temperature.

Installation of Quintherm ILLw is quick and easy, requiring no special tools or skills. Terminations, in-line splicing and power connection components are all available in convenient kits.



Options

ILLw.../Qx Base heating tape without any braiding or outerjacket. (only for non-Ex applications) *(available upon special request)*

ILLw..C/Qx Base heating tape with tinned copper braid providing mechanical protection or where Traced equipment does not provide an effective earth path, e.g. plastic or non-metallic pipework or surfaces. *(available upon special request)*

ILLw..CT/Qx Base heating tape with tinned copper braid and thermoplastic outerjacket for added mechanical and light chemical protection.

ILLw..CF/Qx Base heating tape with tinned copper braid and fluoropolymer outerjacket for added mechanical and aggressive chemical protection.

ILLw... /Qx

Technical Data

Max. Exposure Temperature:
Power On: 85°C
Power Off: 85°C

Min. Installation Temperature: -40°C

Min. Operating Temperature: -65°C

Power Supply: 220-277VAC

Cross-Section: 1.1mm²

Max. Resistance of Protective Braiding: ≤ 18.2 Ω/km

Temperature Class: T6 up to ILLw31...
T4 from ILLw40...

Weights and Dimensions:

Typ	Dimensions Nominal (mm)	Weight kg/100m	Min. Bending radius (mm)	Gland size
ILLw..	10.75 x 3.75	5.6	25	M20
ILLw..C	11.75 x 4.75	9.5	30	M20
ILLw..CT	12.95 x 5.95	11.8	35	M20
ILLw..CF	12.95 x 5.95	12.6	35	M20

Approval

ATEX, IECEx, EAC

Ordering information

Example: ILLw 40 2 C F/Qx

Quintherm tape family (ILLw)

Nominal output 40W/m at 10°C

Supply voltage 220-277V AC (2)
Supply voltage 110-120V AC (1)

Tinned copper braid (C)

Polyolefin outerjacket (T) (blue)
Fluoropolymer outerjacket (F) (black)

Further Information

Please consult the instalation instructions.

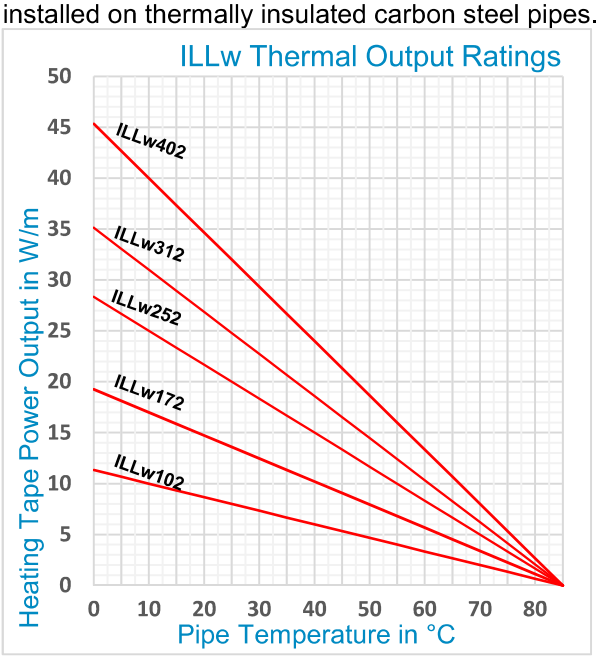
Max. Cct Length (m) vs. MCB Size (A)

Type	Start Temp.	230V AC			
		10A	16A	20A	25A
ILLw102..	+10°C	136	198	198	198
	0°C	122	188	188	188
	-20°C	108	174	176	176
	-40°C	96	154	166	166
ILLw172..	+10°C	92	148	152	152
	0°C	84	134	144	144
	-20°C	74	118	136	136
	-40°C	66	106	128	128
ILLw252..	+10°C	74	118	124	124
	0°C	68	108	120	120
	-20°C	60	94	112	112
	-40°C	52	84	106	106
ILLw312..	+10°C	58	92	112	112
	0°C	52	84	104	104
	-20°C	46	74	92	92
	-40°C	42	66	82	82
ILLw402..	+10°C	46	74	92	92
	0°C	42	66	84	84
	-20°C	36	58	74	74
	-40°C	32	52	66	66

For use with type “C” MCB in accordance with EN60898-2:2006

Thermal Ratings

Nominal power output at 230V AC when ILLw is installed on thermally insulated carbon steel pipes.



Accessories

A full range of accessories are available to complement our heating tapes, such as terminations, end seals, junction boxes and thermostats. Most items carry separate approvals where required for use in hazardous areas.

ILM(w)… /Qx

Electrical heating tape for frost protection or temperature maintenance of instrument line, pipework, or vessels in safe or hazardous area.

Self-Regulating Heating Tape Ex

100°C

- Automatically adjusts heat output in response to heated surface temperature.
- Can be cut to length with minimal wastage.
- Suitable for light industrial and commercial applications up to 100°C.
- Full range of terminations, controls, accessories and approvals available.
- Will not overheat, even when overlapped.
- Available for 220…277V AC (110V…120V AC upon request)

Description

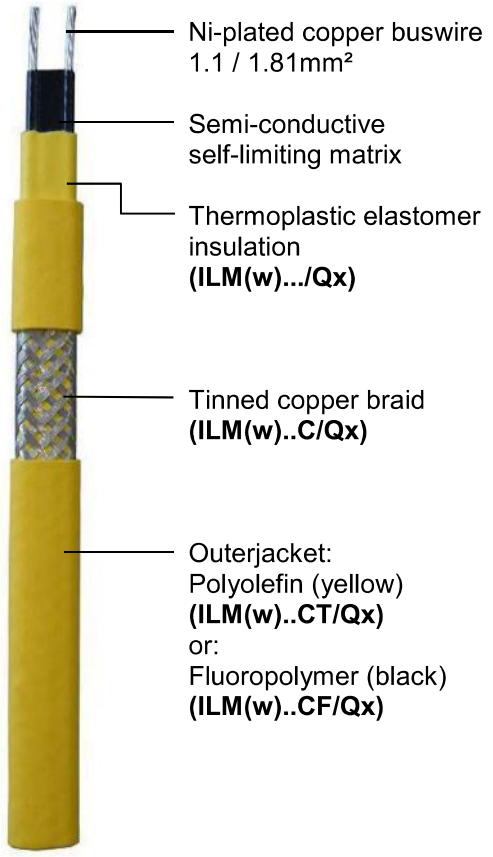
Quintherm ILM & ILMw is a medium industrial/ commercial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework or vessels in the construction and heavy industries up to and including 100°C which are not subject to steam cleaning.

It can be cut-to-length on site to match exact pipe lengths without any complicated design considerations.

ILM & ILMw is approved for use in non-hazardous, hazardous or corrosive environments to world-wide standards.

Its self-regulating characteristics improve safety and reliability. ILM & ILMw will not overheat or burnout, even if overlapped upon itself. Its power output is automatically self-regulated in response to pipe or heated surface temperature.

Installation of Quintherm ILM & ILMw is quick and easy, requiring no special tools or skills.
Terminations, in-line splicing and power connection components are all available in convenient kits.



Options

(available upon special request)

ILM(w).../Qx Base heating tape without any braiding or outerjacket. (only for non-Ex applications)

ILM(w)..C/Qx Base heating tape with tinned copper braid providing mechanical protection or where Traced equipment does not provide an effective earth path, e.g. plastic or non-metallic pipework or surfaces.

ILM(w)..CT/Qx Base heating tape with tinned copper braid and thermoplastic outerjacket for added mechanical and light chemical protection.

ILM(w)..CF/Qx Base heating tape with tinned copper braid and fluoropolymer outerjacket for added mechanical and aggressive chemical protection.

ILM(w)… /Qx

Technical Data

Max. Exposure Temperature:
Power On: 100°C
Power Off: 100°C

Min. Installation Temperature: -40°C

Min. Operating Temperature: -65°C

Power Supply: 220-277VAC
Cross Section: 1.1/1.81mm²
Max. Resistance of Protective Braiding: ≤ 18.2 Ω/km

Temperature Class: T4 up to ILM31...
T3 from ILMw45…

Weights and Dimensions:

Type	Dimensions Nominal (mm)	Weight kg/100m	Min. Bending radius (mm)	Gland size
ILM..	10.5 x 3.75	5.7	25	M20
ILM..C	11.5 x 4.75	9.5	30	M20
ILM..CT	12.7 x 5.95	11.8	35	M20
ILM..CF	12.7 x 5.95	12.6	35	M20
ILMw..	13.2 x 4.3	8.7	25	M20
ILMw..C	14.2 x 5.3	12.9	30	M20
ILMw..CT	15.4 x 6.5	15.7	40	M25
ILMw..CF	15.4 x 6.5	16.6	40	M25

Approval

ATEX, IECEx, EAC

Ordering Information

Example: ILMw 45 2 C F/Qx

Quintherm tape family (ILM(w))

Nominal output 45W/m at 10°C

Supply voltage 220-277V AC (2)
Supply voltage 110-120V AC (1)

Tinned copper braid (C)

Polyolefin outerjacket (T) (yellow)
Fluoropolymer outerjacket (F) (black)

Further Information

Please consult the installation instructions.

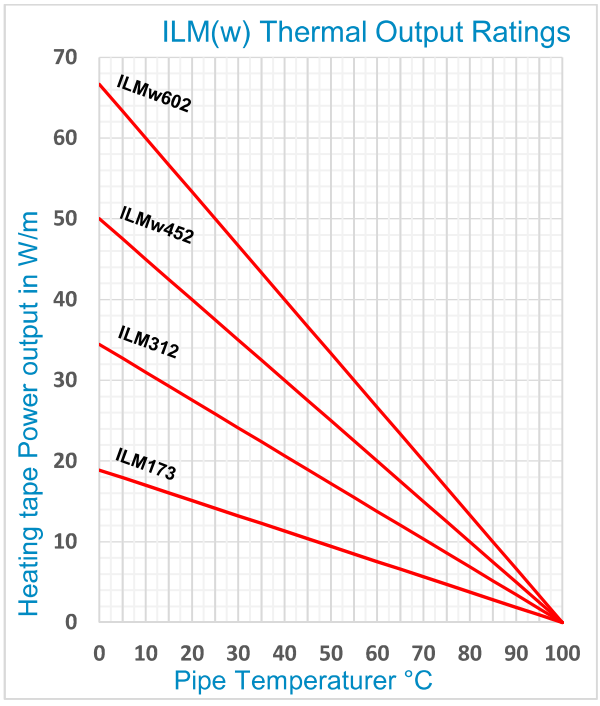
Max. Cct Length (m) vs. MCB Size (A)

Type	Start Temp.	230V AC			
		10A	16A	20A	25A
ILM172..	+10°C	76	120	148	148
	0°C	62	98	122	148
	-20°C	42	66	82	102
	-40°C	28	44	56	68
ILM312..	+10°C	52	82	104	110
	0°C	42	68	84	106
	-20°C	28	46	56	70
	-40°C	18	30	38	48
ILMw452..	+10°C	38	62	76	96
	0°C	32	50	64	80
	-20°C	22	34	42	52
	-40°C	14	22	28	34
ILMw602..	+10°C	35	52	66	82
	0°C	28	44	56	70
	-20°C	20	32	40	50
	-40°C	14	22	28	34

For use with type “C“ CB in accordance with EN60898-2:2006

Thermal Ratings

Nominal power output at 230V AC, when ILM(w) is installed on thermally insulated carbon steel pipes.



Accessories

A full range of accessories are available to complement our heating tapes, such as terminations, end seals, junction boxes and thermostats. Most items carry separate approvals where required for use in hazardous areas.

ILH… /Qx

Electrical heating tape for frost protection or temperature maintenance of instrument lines, pipework or vessels in safe or hazardous area.

Self-Regulating Heating Tape

225°C

- Automatically adjusts heat output in response to heated surface temperature
- Can be cut to length with minimal wastage
- Suitable for high process temperature maintenance applications up to 200°C
- Full range of terminations, controls, accessories and approvals available
- Will not overheat, even when overlapped
- Available for 220…277V AC (110V…120V AC upon request)

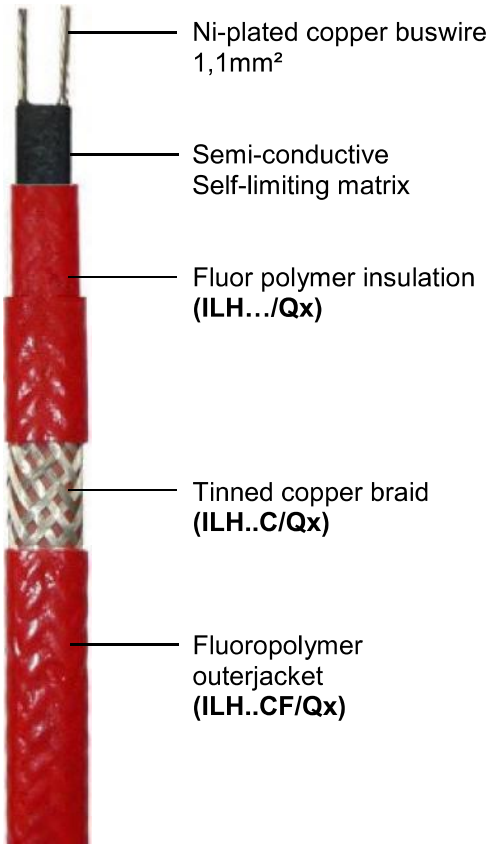
Description

Quintherm ILH is a high temperature industrial/commercial grade self-regulating heating tape that can be used for high process temperature maintenance of pipework or vessels in the pharmaceutical & chemical or construction industries up to 225°C (switched off) which may be subject to steam cleaning.
It can be cut-to-length on site to match exact pipe lengths without any complicated design considerations.

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

Its self-regulating characteristics improve safety and reliability. ILH will not overheat or burnout, even if overlapped upon itself. Its power output is automatically self-regulated in response to pipe or heated surface temperature. This ensures safety and reliability.

Installation of Quintherm ILH is quick and easy, requiring no special tools or skills. Terminations, in-line splicing and power connection components are all available in convenient termination kits.



Options

ILH.../Qx Base heating tape without any braiding or outer jacket (only for non-Ex applications). *(available upon special request)*

ILH..C/Qx Base heating tape with tinned copper braid providing mechanical protection or where Traced equipment does not provide an effective earth path, e.g. plastic or non-metallic pipework or surfaces. *(available upon special request)*

ILH..CF/Qx Base heating tape with tinned copper braid and fluoropolymer outerjacket for added mechanical and aggressive chemical protection.

ILH… /Qx

Technical Data

Max. Exposure Temperature:
Power On: 200°C
Power Off: 225°C

Min. Installation Temperature: -40°C

Min. Operating Temperature: -65°C

Power Supply: 220-277VAC
Cross Section: 1.1mm²
Max. Resistance of Protective Braiding: ≤18.2 Ω/km

Temperature Class: T3 up to ILH60…
T2 from ILH75…

Weights and Dimensions:

Type	Dimensions nominal (mm)	Weight kg/100m	Min. bending radius (mm)	Gland size
ILH..	9.55 x 3.35	6.9	20	M20
ILH..C	10.55 x 4.35	10.4	30	M20
ILH..CF	11.45 x 5.25	13.4	35	M20

Approval

ATEX, IECEx, EAC

Ordering Information

Example: ILH 30 2 C F/Qx

Quintherm tape family (ILH)

Nom. output 30W/m at 10°C

Supply voltage 220-277V AC (2)
Supply voltage 110-120V AC (1)

Tinned copper braid (C)

Fluoropolymer outerjacket (F)

Further Information

Please consult the installation instructions.

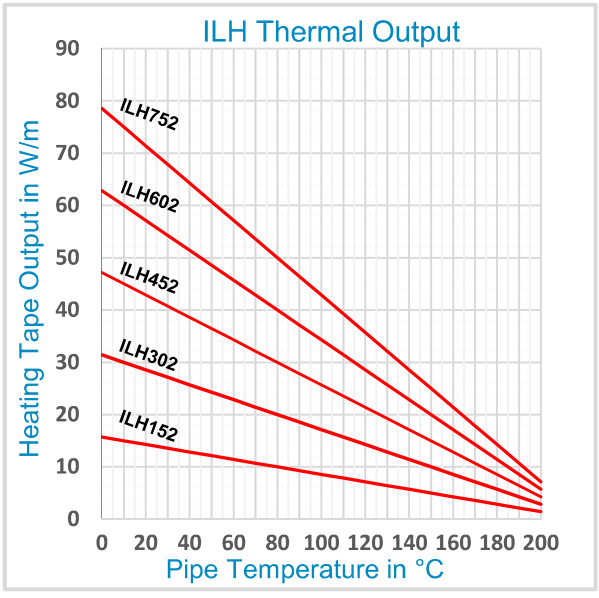
Max. Cct Length (m) vs. MCB size (A)

Type	Start temp.	230V AC			
		10A	16A	20A	32A
ILH152..	+10°C	112	162	162	162
	0°C	106	162	162	162
	-20°C	94	150	162	162
	-40°C	84	134	162	162
ILH302..	+10°C	58	92	114	114
	0°C	56	88	112	114
	-20°C	50	82	102	114
	-40°C	46	74	94	114
ILH452..	+10°C	42	66	84	98
	0°C	40	64	80	98
	-20°C	36	58	72	90
	-40°C	34	52	66	82
ILH602..	+10°C	32	52	64	76
	0°C	30	50	62	64
	-20°C	28	44	56	58
	-40°C	26	40	50	52
ILH752..	+10°C	26	40	52	66
	0°C	22	34	44	48
	-20°C	14	24	28	32
	-40°C	10	14	18	22

For use with type “C” MCB in accordance with EN60898-2:2006

Thermal Ratings

Nominal power output at 230V AC when ILH is installed on thermally insulated carbon steel pipes.



Accessories

A full range of accessories are available to complement our heating tapes, such as terminations, end seals, junction boxes and thermostats. Most items carry separate approvals where required for use in hazardous areas.

ILS… /Qx

Electrical heating tape for frost protection or temperature maintencance of instrument lines, pipework or vessels in safe or hazardous area.

Self-Regulating Heating Tape Ex

250°C

- Automatically adjusts heat output in response to heated surface temperature.
- Can be cut to length with minimal wastage.
- Suitable for high process temperature maintenance applications up to 220°C.
- Full range of terminations, controls, accessories and approvals available.
- Will not overheat, even when overlapped.
- Available for 220…277V AC. (110V…120V AC upon request)

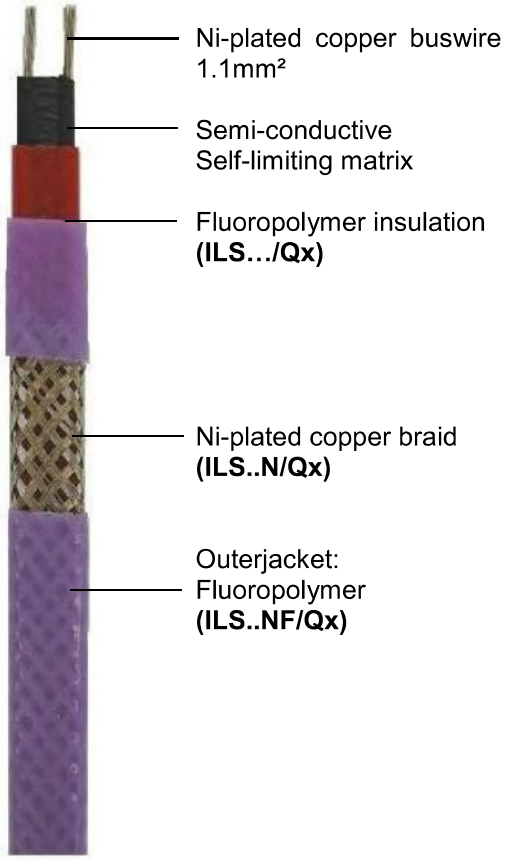
Description

Quintherm ILS is a super high temperature industrial/ commercial grade self-regulating heating tape that can be used for super high process temperature of pipework or vessels in the pharmaceutical & chemical or construction industries up to 250°C (switched off) likely to be subject to steam cleaning. It can be cut-to-length on site to match exact pipe lengths without any complicated design considerations.

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

Its self-regulating characteristics improve safety and reliability. ILS will not overheat or burnout, even if overlapped upon itself. Its power output is automatically self-regulated in response to pipe or heating surface temperature. This ensures safety and reliability.

Installation of ILS is quick and easy, requiring no special tools or skills. Terminations, in-line splicing and power connection components are all available in convenient kits.



Options

ILS.../Qx Base heating tape without any braiding or outerjacket (for non-Ex applications only) *(available upon special request)*

ILS..N/Qx Base heating tape with nickel-plated copper braid providing mechanical protection or where traced equipment does not provide an effective earth path, e.g. plastic or non-metallic pipework or surfaces. *(available upon special request)*

ILS..NF/Qx Base heating tape with nickel-plated copper braid and fluoropolymer outerjacket for added mechanical and aggressive chemical protection.

ILS… /Qx

Technical Data

Max. Exposure Temperature:	
Power On:	220°C
Power Off:	250°C
Min. Installation Temperature:	-40°C
Min. Operating Temperature:	-65°C
Power Supply:	220-277VAC
Cross-Section:	1.1mm²
Max. Resistance of Protective Braiding:	≤ 18.2 Ω/km
Temperature Class:	T3 up to ILS60... T2 from ILS75…

Weights and Dimensions:

Type	Dimensions Nominal (mm)	Weight kg/100m	Min. bending radius (mm)	Gland size
ILS..	10.2 x 3.5	7.6	20	M20
ILS..N	11.2 x 4.5	11.3	30	M20
ILS..NF	12.1 x 5.4	14.6	35	M20
ILSw..	12.5 x 3.7	11.4	25	M25
ILSw..N	13.5 x 4.7	15.8	30	M25
ILSw..NF	14.4 x 5.6	19.5	35	M25

Approval

ATEX, IECEx, EAC

Ordering Information

Example: ILS 30 2 N F/Qx

- Quintherm tape family (ILS)
- Nominal output 30W/m at 10°C
- Supply voltage 220-277V AC (2)
  Supply voltage 110-120V AC (1)
- Nickel-plated copper braid (N)
- Fluoropolymer outerjacket (F)

Further Information

Please consult the installation instructions.

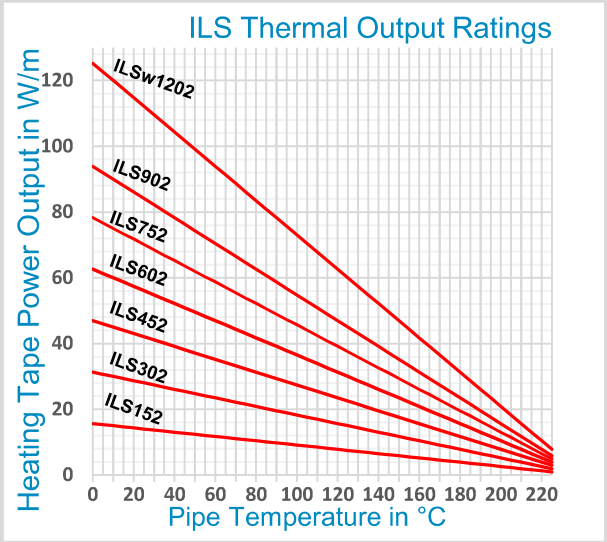
Max. Cct Length (m) vs. MCB Size (A)

Type	Start Temp.	230V AC			
		10A	16A	20A	25A
ILS152..	+10°C	76	122	154	154
	0°C	70	112	140	146
	-20°C	62	98	122	138
	-40°C	52	82	102	126
ILS302..	+10°C	52	82	102	108
	0°C	46	74	92	104
	-20°C	40	66	82	98
	-40°C	30	50	62	88
ILS452..	+10°C	38	62	76	88
	0°C	34	56	70	84
	-20°C	30	50	62	76
	-40°C	22	34	44	46
ILS602..	+10°C	30	50	62	76
	0°C	28	44	56	58
	-20°C	20	32	40	42
	-40°C	12	18	24	24
ILS752..	+10°C	22	34	44	46
	0°C	16	26	34	36
	-20°C	12	18	24	24
	-40°C	8	12	14	14
ILS902..	+10°C	14	24	28	46
	0°C	12	18	22	36
	-20°C	8	12	16	24
	-40°C	4	8	10	14
ILSw1202..	+10°C	14	22	28	46
	0°C	12	18	24	36
	-20°C	8	14	16	26
	-40°C	6	10	12	20

For use with type "C" MCB in accordance with EN60898-2:2006

Thermal Ratings

Nominal Power Output at 230V AC when ILS is installed on thermally insulated carbon steel pipes.



Accessories

A full range of accessories are available to complement our heating tapes, such as terminations, end seals, junction boxes and thermostats. Most items carry separate approvals where required for use in hazardous areas.

ILL..S../Qx

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

Self-Limiting Heating Tape Ex

85°C

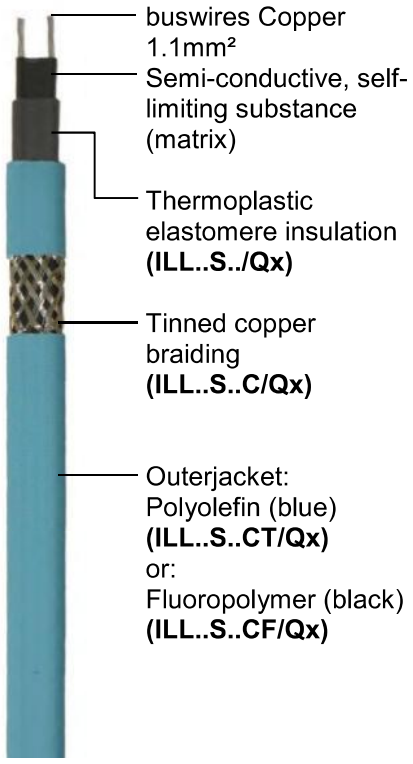
- Can be cut to length with minimal wastage
- Broad variety of termination sets, controllers and accessories available
- Will not overheat, even when overlapped
- Ideal for battery powered applications
- For 24V AC/DC (12V upon request)
- Automatically adjusts power output in response to pipe/ worpiece temperature

Description

Quintherm ILL..S.. is a light industrial/commercial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework and vessels in the construction and refrigeration industries. It can be cut-to-length at site and exact piping lengths can be matched without any complicated design considerations.

Its self-regulating characteristics improve safety and reliability. ILL..S.. 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 ILL..S.. is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.



Options

ILL..S../Qx Basic heating tape without copper braiding and without outerjacket (only for non-Ex applications) *(no stock, only available upon request)*

ILL..S..C/Qx Tinned copper braid provides effective grounding (where not already provided by e.g. pipework).

ILL..S..CT/Qx Standard heating cable with tinned copper braid and polyolefin outerjacket for enhanced mechanical and chemical protection.

ILL..S..CF/Qx Standard heating cable with tinned copper braid and fluoropolymer outerjacket to withstand corrosive chemicals or vapours.

ILL..S../Qx

Technical Data

Max. Permitted Temperature:
Power On: 85°C
Power Off: 85°C
Min. Installation Temperature: -40°C
Power Supply: 22-24V (11-12V) AC/DC
Max. Resistance of Protective Braid: 18,2 Ohm/km
Temperature Class: T6 12W/m, 17W/m; T4 30W/m

Weights and Dimensions:

Type	Dimensions Nominal (mm)	Weight Kg/100m	Min. Bending Radius (mm)	Gland Size
ILL..S..	10.8 x 3.8	4.8	25	M20
ILL..S..C	11.8 x 4.8	9.5	30	M20
ILL..S..CT	13 x 6	11.8	35	M20
ILL..S..CF	12.7 x 5.7	12.6	35	M20

Approval

ATEX, IECEx, EAC

Ordering Information

Example:

ILL 17 S24 C T

- ILL: Quintherm ILL
- 17: Nominal Output 17W/m
- S24: Supply Voltage 24V AC/DC (S24); Supply Voltage 12V AC/DC (S12)
- C: Tinned Copper Braid (C)
- T: Polyolefin Outerjacket (T) (blue); Fluoropolymer Outerjacket (F) (black)

Max. Length (m) vs. Circuit Braker Size

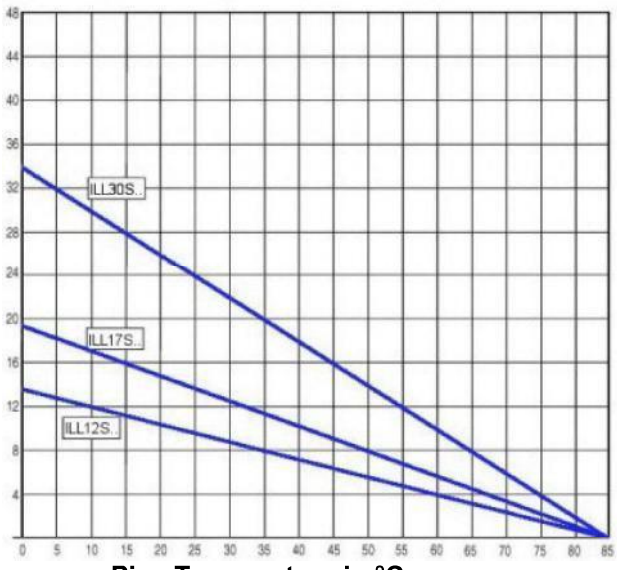
Type	Start Temp.	6A	10A	16A	20A
ILL12S24..	5°C	8	14	18	-
	0°C	8	12	18	
	-20°C	6	12	16	
	-40°C	6	10	14	
ILL17S24..	5°C	6	8	14	16
	0°C	4	8	12	14
	-20C°	4	6	10	14
	-40°C	4	6	10	12
ILL30S24...	5°C	4	6	1	12
	0°C	4	6	8	10
	-20°C	2	4	8	10
	-40°C	2	4	6	8

For use with Type C circuit brakers to EN60898

Thermal Ratings

Nominal output at 12V or 24V when the heating tape is installed on insulated metal piepes.

W/m



Pipe Temperature in °C

Accessories

Quintex offers a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. Such items carry separate approvals from the heating tapes. When used in hazardous areas, only use approved components.

Further Information

Please consult the installation instructions.

CLD…/Qx

Electrical heating tape for roof and gutter protection from snow and ice buildup.

Self-Regulating Heating Tape non-Ex

85°C

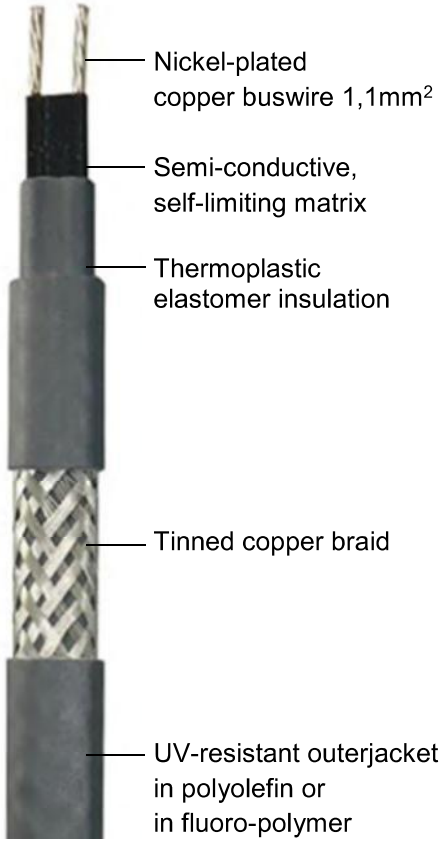
- High UV-resistance
- Will not overheat, even when overlapped
- Can be cut to length with minimal wastage
- Available for different voltages
- Temperature resistant up to 85°C
- Available with fluoro-polymer outerjacket

Description

Quintherm CLD is a special self-limiting heating cable for gutter heating and to prevent formation of snow slab on roofs areas.

Thanks to the UV resistance, these heating tapes are well suitable to the requirements of this particular application. By the temperature resistance of 85°C this heating tape resists even hot surfaces caused by sun exposure.

Its self-regulating characteristics improve safety and reliability. Quintherm CLD will not overheat or burnout, even when overlapped. The power output is self-regulated in response to the ambient temperature.
On the characteristics can be seen that the heating tape can reach a power output of 36W/m in ice water to ensure the required defrost ability.



Possible Applications

- Gutter heating
- Roof valley heating
- Downspoat heating
- Roof area heating
- Roof draining heating
- Facade heating

Technical Data

Max. Allowed Temperature:
Power On: 85°C
Power Off: 85°C

Min. Installation Temperature: -40°C

Power Supply: 208 - 277VAC
Cross Section: 1.1mm²
Maximum Resistance of Protective Braid: ≤ 18.2Ohm/km

Type	Nominal Dimensions (mm)	Weight Kg/100m	Min. Bending Radius (mm)
CLD	10.5 x 5.9	10.0	35

Power Output

at 0°C

In air: 18W/m

In ice water: 36W/m

Cold Start Data

Values for 300 seconds

Starting Temperature	Current (A/m) at 230V AC
-15°C	0.295
0°C	0.259
+15°C	0.236

Ordering Information

Example:

CLD182 CT/CF

- Quintherm CLD
- Nominal Output 18W/m at 0°C
- Supply Voltage 208 – 277VAC
- Tinned Copper Braid (C)
- Outerjacket Polyolefin (T) or Fluoro-Polymer (F)

Max. Length of Heating Circuit (m)

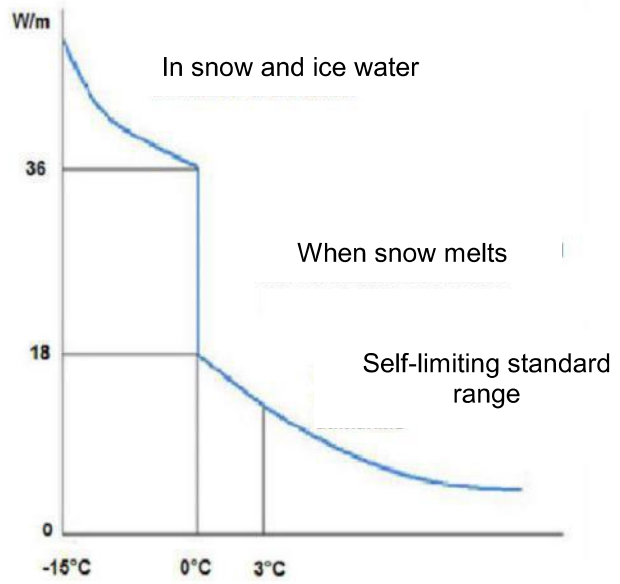
In relationship to used circuit breaker.

Start Temp.	10A	16A	20A	32A
+10°C	56	88	92	-
0°C	48	76	92	-
-15°C	36	58	74	92

Circuit breaker Type C to IEC 60898

Thermal Ratings

Nominal output at 230V AC



Power Output Multiplying Factors

Supply Voltage	Multiplying Factors
208VAC	0.93
220VAC	0.97
230VAC	1.00
240VAC	1.03
250VAC	1.06
277VAC	1.15

IAL1...

Termination and connection set for use in hazardous area.

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

Dimensions:		
Enclosure (LxBxH in mm):		122x120x90
Mounting Unit (LxBxH in mm):		115x110x42
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 cales (S)
  For wide heating cables (B)
- Set
- For 1 or 2 heating circuits

Small heating cables: ILL..S, ILH

Wide heating cables: ILLW, ILM, ILS

Approval

ATEX, IECEx, EAC

Marking

II 2 GD T6

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!

IAL3SK1 (F)

Termination set in shrinking technology for use in non-hazardous area.

Termination Set non-Ex

- Compact design
- Temperature resistant up to 130°C (IAL3SK1 F 120°C)
- Quick and easy to assemble
- Applicable for different heating tapes CLD; ILL..S; ILLw; ILM, ILMw; ILH (up to 120°C);
- Different sets seperately available

Description

The IAL3SK1 is a termination set which is easy and fast to assemble.

The heating tape will be connected with the feeding cable by using a ceramic terminal block and afterwards overshrunk with a special shrink tubing.

Because of the illustrated instruction manual the installation is very easy and requires no special tools.

Technical Data

Max. Ambient Temperature: +130°C
or +120°C for IAL3SK1 F

Heating Tapes: CLD, ILL..S, ILLw, ILM, ILMw, ILH

Cross Section: up to 2.5mm^2

Length Connection Side: 120mm

Length End Seal: 58mm

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

IAL3SK1: Power connection and end seal in one kit, for heating tapes with polyolefin outerjacket

IAL3SK1 F: Power connection and end seal in one kit, for heating tapes with fluoro-polymer outerjacket

Alternative Products

Part number:

IAL5SS: Non-Ex Termination set in screw technology

Additional Products

Part number:

IAL3VK1: Connection set (Heating tape – Heating tape)

IAL3AG1: Power connection and end seal for direct entry in a special enclosure

AG 101: Non-Ex glasfiber reinforced Polyester enclosure for 1-3 heating circuits

IAL3SAG1 (F)

Termination set in shrinking technology for use in non-hazardous area.

Termination Set non-Ex

- Compact design
- Direct entry in enclosure by using an M20 cable gland
- Quick and easy to assemble
- Different sets seperately available
- Applicable for different heating tapes CLD; ILL..S; ILLw; ILM, ILMw; ILH (up to 120°C);

Description

The IAL3SK1 is a termination set which is easy and fast to assemble.

The bus wires of the heating cable will be inserted over an M20 cable gland directly into an enclosure.

Because of the illustrated instruction manual the installation is very easy and requires no special tools.

Technical Data

Max. Ambient Temperature:	+130°C or +120°C for IAL3SK1 F
Heating Tapes:	CLD, ILL..S, ILLw, ILM, ILMw, ILH
Cable Gland:	1x M20
Length End Seal:	58mm

Further Information

Please consult the installation instructions!

Ordering Information

Part number:	
IAL3SAG1:	supply & termination kit for direct entry into an enclosure, for heating tapes with polyolefin outerjacket
IAL3SAG1 F:	supply & termination kit for direct entry into an enclosure, for heating tapes with fluoropolymer outerjacket

Alternative Products

Part number:	
IAL5SS:	Non-Ex Termination set in screw technology

Additional Products

Part number:	
IAL3VK1:	Connection set (Heating tape – Heating tape)
IAL3SK1:	Power connection and end seal in one kit,
AG 101:	Non-Ex glasfiber reinforced Polyester enclosure for 1-3 heating circuits

IAL3Ex MK.. (F)

Termination set in shrinking technology for use in hazardous area.

Termination Set Ex

- For supply cables up to 2,5mm²
- Compact design
- Quick and easy to assemble
- Different versions available
- Applicable with the following heating tapes ILLw…CT/CF, ILM(w)…CT/CF

Description

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

The heating cable is connected to a special feeding cable by using a ceramic terminal block and afterwards overshrunk with a special shrink tubing. The compact design enable to use this set in cramped space conditions.

The illustrated manual helps for an error-free installation.

Technical Data

Ambient Temperatures:	min. -20/-40°C max. +65°C/+85°C
For Heating Tapes:	ILLw, ILM(w)
Cross Section:	bis 2.5mm²
Length Connection Side:	140mm
Length End Seal:	ca. 60mm

Approval

ATEX, IECEx, UKEX, EAC

Marking

II 2G Ex mb IIC T6/T5/T4/T3 Gb
II 2D Ex mb IIIC T85°C/T100°C/T135°C/T200°C Db

Further Infromation

Please consult the installation instructions!

Ordering Information

Part number:
(for heating tapes with polyolefin outerjacket)

IAL3Ex MKSS:	Power connection and end seal
IAL3Ex MKSA:	Power connection only
IAL3Ex MKSE:	End seal only
IAL3Ex MKSV:	Connection heating tape - heating tape

Part number:
(for heating tapes with flouropolymer outerjacket)

IAL3Ex MKSS F:	Power connection and end seal
IAL3Ex MKSA F:	Power connection only
IAL3Ex MKSE F:	End seal only
IAL3Ex MKSV F:	Connection heating tape – heating tape

Additional Products

Part number:
AG 101 Ex: Ex-junction box for up to 3 heating circuits (further versions, please see data sheet)

Radox-125 3G x 1.5:	Temperature resistant connection cable.
Radox-125 3G x 2.5:	Temperature resistant connection cable.

IAL3Ex MQ.. (F)

Termination set in shrinking technology for use in hazardous area.

Termination Set Ex

- For supply cables up to 1.5mm²
- Compact design
- Quick and easy to assemble
- Suitable for following heating tapes ILL(w)…CT/CF, ILM(w)…CT/CF
- Different versions available upon request

Description

The IAL3Ex MQSS contains a very flexible and space saving termination set and can be used in hazardous area.

The heating cable is connected to a special feeding cable by using isolated butt connectors and afterwards overshrunk with a special shrink tubing. The compact design enables use even under cramped space conditions.

The illustrated manual helps for an error-free installation. This set contains power connection and end seal.

Technical Data

Ambient Temperatures:	min. -20/-25°C max. +65°C/+85°C
For Heating Tapes:	ILLw, ILM(w)
Cross Section:	up to 1.5mm²
Lenth Connection Side:	140mm
Length End Seal:	ca. 60mm

Approval

ATEX, IECEx, UKEX, EAC

Marking

II 2G Ex mb IIC T6/T5/T4/T3 Gb
II 2D Ex mb IIIC T85°C/T100°C/T135°C/T200°C Db

Further Information

Please consult the installation instruction!

Ordering Information

Part number:
(for heating tapes with polyolefin outerjacket)

IAL3Ex MQSS:	Power connection and end seal
IAL3Ex MQSA:	Power connection only
IAL3Ex MQSE:	End seal only
IAL3Ex MQSV:	Connection heating tape – heating tape

Part number:
(for heating tapes with flourpolymer outerjacket)

IAL3Ex MQSS F:	Power connection and end seal
IAL3Ex MQSA F:	Power connection only
IAL3Ex MQSE F:	End seal only
IAL3Ex MQSV F:	Connection heating tape – heating tape

Additional Products

Part number:
AG 101 Ex:Ex-junction box for 1-3 heating circuits
(for further information see datasheet)

Radox-125 3G x 1,5:	Temperature resistant connection cable Ex
Radox-125 3G x 2,5:	Temperature resistant connection cable Ex

IAL3Ex HQ..

Termination set in shrink technology for application in hazardous area.

Termination Set Ex

- Compact design
- Temperature resistant up to 180°C
- Flexible usage
- Different sets seperately available
- Applicable for: ILH...CF/Qx , ILS…NF/Qx

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.

Technical Data

Temperature Resistant up to:	180°C
For Heating Tapes:	ILH, ILS…NF/Qx
Length Connection Side:	140mm
Length End Seal:	ca. 55mm

Approval

ATEX, IECEx, UKEX, EAC

Marking

II 2G Ex mb IIC T3 Gb
II 2D Ex mb IIIC T200°C Db

Further Information

Please consult the installation instructions!

Ordering Information

Part number:	
IAL3Ex HQSS:	Power connection and end seal.
IAL3Ex HQSA:	Power connection only
IAL3Ex HQSE:	End seal only
IAL3Ex HQSV:	Connection heating tape – heating tape

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

(for different versions view enclosure datasheet)

ALF 25:	Heat resistant FEP-Supply cable 3Gx2.5mm²

IAL4SS/BS

Silicon termination set for use in hazardous area.

Termination Set Ex

- Compact design
- Temperature resistant up to 200°C
- Quick and easy to assemble
- Applicable with different types of heating tapes
- Further sets available

Description

The termination kits of the IAL4-series are silicon-made termination parts which contains power supply, end seal, a special cable gland and various accessories. These termination kits can be used to connect the heating circuit directly in an Exe approved junction box e.g. AG.. Ex or thermostat enclosure IR2M..Ex.

There is no separate supply cable needed. Because of the high temperature resistance up to 200 °C, heating cable types ILL.. are suitable as well as mid- & high temperature heating cable types ILM, ILH and ILS.

Technische Daten

Temperature Resistant:	-60°C…200°C
Material:	Silicone
Length Connection Sleeve:	125 mm
Length End Seal:	66 mm

Approval

ATEX, IECEx, UKEX, EAC

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

IAL4SS:	Termination set suitable for ILL..S..CT/CF,
IAL4BS:	Termination set suitable for ILLw..CT/CF, ILM..CT/CF, ILH..CF, ILS..NF
IAL4SA:	like IAL4SS, but only power supply
IAL4BA:	like IAL4BS, but only power supply
IAL4SE:	like IAL4SS, but only end seal
IAL4BE:	like IAL4BS, but only end seal

Additional Products

AG 101 Ex:	Ex-Junction box for 1-3 heating circuits
IR2M0012Ex:	Ex-Capillary thermostat 0…+120°C for 1 heating circuit

IAL5SS /BS

Termination set in screwing technology for use in non-hazardous area.

Termination Set non-Ex

- Compact design
- Temperature resistant up to 130°C
- Quick and easy to assemble
- Suitable for different types of heating tapes ILL..S, ILLw, ILM, ILMw, ILH, ILS (up to 130°C)
- Power supply and end termination seperately available

Description

The Quincon system contains a termination set which is easy and fast to assemble, based on approved screw technology.
The compact dimensions makes it possible, that this system can be installed even underneath the thermal insulation of the pipe.

The IAL5 product range contains several components such as power supply, end termination, branches and connections.

The installation is very easy to handle and requires no special tools.

Technical Data

Temperature Resistant:	-40°C…130°C
For Heating Tapes:	ILLw, ILL..S, ILM, ILMw, ILH, ILS
Cross Section:	up to 2.5mm²
Length Power Connection:	125mm
Length End Termination:	58mm

Further Information

Please consult the installation instructions!

Ordering Information

Part number:	
IAL5SS:	Power connection and end termination set
IAL5BS:	Like IAL5SS, but for ILMw
IAL5SA:	Power connection (single)
IAL5SE:	End termination (single)
IAL5ST:	T-Branch (supply cable + 2 heating cables or 3 heating cables)
IAL5SV:	Connection heating cable – heating cable, except for ILMw

Alternative Products

Part number:	
IAL3SK1:	Non-Ex termination set in shrinking technology

Further Products

Part number:	
AG 101:	Junction box made of glasfiber enhanced polyester for up to 3 heating circuits (different versions see datasheet)

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Tel: +49 9343 6130 -0 Fax: +49 9343 6130 -105 E-Mail: info@quintex.info www.quintex.eu

IAL5SC

Termination kit with integrated bimetal-temperature switch for use in non-hazardous area.

Termination Kit non-Ex

- Compact design
- Operating temperature up to 125°C
- Quick and easy to assemble
- Suitable for wide range of heating cables
- End termination kit seperately available

Description

The Quincon system contains a termination kit, based on approved screw technology, which is quick and easy to assemble. The integrated bimetal-temperature-switch eliminates the use of an additional thermostat. This compact design saves both space and time be-cause no additional enclosure is required.

When the temperature is measured under the thermal insulation, it ensures a more economical solution withreduced operation, unlike conventional systems measuring the ambient temperature outside the thermal insulation.

Technical Data

Max. Operating Temperature:	125°C
Suitable Heating Cables:	ILLw, ILL..S, ILM
(depending on operating temperature also ILH, ILS)	
Terminal Capacity:	up to 2.5mm²
Max. Current Rating:	16A at 230V AC
Dimensions (LxWxH in mm):	140 x 60 x 30
Proctection Class:	IP68
Switching Points:	4°C On, 11°C Off

(Further temperature ranges available upon re-quest)

Ordering Information

Part number:	
IAL5SC:	Power termination with in-line bimetall temperature switch
IAL5SE:	End termination kit

Alternative Products

Part number:	
IAL8Ex HKSC:	Power termination with in-line bimetall temperature switch for haz-ardous area

Further Products

Article code:	
AG 101:	Fiber glass enhanced junction box for 1-3 heating circuits (for different versions please see junction box data sheet)

Further Information

Please consult the installation instructions!

IAL8EX ...

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

Termination Kit Ex

- Temperature resistant up to 190°C
- Current rating 20A
- Suitable for use with many types of heating cables
- Version brass nickel plated
- Version in stainless steel upon request
- Compact design

Description

The IAL8Ex… system is a very easy and quick 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, or enclosure underneath the insulation.
There is no blow-heater or special skills required for assembling. Further on branches can easily be realized with the T-branch.

Technical Data

Temperature Range:	-60…190°C
Heating Cables:	ILLw, ILM, ILH, ILS, IPH, IPL
Clamping Range Supply:	7.0 – 10.5mm
Clamping Range Heating Cable:	4.7x10 – 6.5x13mm
Max. Current Rating:	20A AC
Supply Voltage:	12…400V AC
Terminal Diameter:	2.5mm²
Protection Class:	IP65
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

Approval

ATEX, IECEx, UKEX, EAC

Marking

II 2G Ex eb IIC T6/T5/T4/T3/T2 Gb
II 2D Ex tb IIIC T135°C Db IP65

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

Example: IAL8EX H K S S

- IAL8EX — Quintherm IAL8EX
- H — Operation temperature range: -60..+190°C
- K — Terminal block (K)
- S — Narrow heating tapes (see clamping range)
- S — Connection and termination set (S)
  Connection set, supply heating cable (A)
  End-Termination set (E)
  Connection set, heating cable – heating cable (V)
  T-branch (T)
  Integrated frost protection thermostat (C)

Alternative Products

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

Further Products

ILLw, ILM, ILH; ILS, self-limiting parallel heating cables
AG 101Ex : Ex-junction box (different types)

IAL8wEX…

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

Termination Kit Ex

- Temperature resistant up to 190°C
- Current rating 20A
- Suitable for use with many types of heating cables
- Version brass nickel plated
- Version in stainless steel upon request
- Compact design

Description

The IAL8wEx… system is a very easy and quick 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, or enclosure underneath the insulation.

There is no blow-heater or special skills required for assembling.

Technical Data

Temperature Range:	-60…190°C
Heating Cables:	ILMw, ILSw, other heating tapes (see clamping range)
Clamping Range Supply:	7.0 – 10.5mm
Clamping Range Heating Cable:	6.5x13 – 7.5x15.5mm
Max. Current Rating:	20A AC
Supply Voltage:	12…400V AC
Terminal Diameter:	2.5mm²
Protection Class:	IP65
Length:	110 mm
Diameter:	31mm (SW29)
Weight Supply/ End/ T:	202g
Material:	Brass nickel Plated

Approval

ATEX, IECEx, UKEX, EAC

Marking

II 2G Ex eb IIC T6/T5/T4/T3/T2 Gb
II 2D Ex tb IIIC T135°C Db IP65

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

Example: IAL8wEX H K W S

- Quintherm IAL8wEX
- Operation temperature range: -60..+190°C
- Terminal block (K)
- Wide heating tapes (see clamping range)
- Connection and termination set (S)
  - Connection set, supply - heating cable (A)
  - End-Termination set (E)
  - Connection set, heating cable – heating cable (V)

Alternative Products

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

Further Products

ILMw:	self-limiting parallel heating
IAL8EX... :	fast connection kit
AG 101Ex :	Ex-junction box (different types)

IAL8EX HKSC

Termination kit for self-limiting heating cables with integrated ambient thermostat type IRM2Ex; for use in non-hazardous and hazardous area.

Termination Kit Ex

- High temperature resistance
- Switching capacity up to 16A
- Suitable for use with many types of heating cables
- Version brass nickel plated
- Compact design
- Thermostat already integrated

Description

The IAL8EX< system is a very easy and fast to install connection kit, based on an approved screw technology. Our version with integrated ambient thermostat makes it possible to realize power supply, branch of heating cable and thermostat – all in one device!

Direct switching capacity is up to 16A.
Typical applications are simple frost protection applications on pipes, tanks, and heat jackets.

Technical Data

Temperature Range:	-55…110°C
Cable Clamping Range:	7,0 - 10,5mm
Cable cap. Heating cable:	Type S: 6x12mm Type B: 7x14mm
Max. Current Rating:	16A AC
Switching Points:	4°C On / 11°C Off
Supply Voltage:	250V AC
Terminal Diameter:	2,5mm²
Protection Class:	IP65
Total Length/ Width	125 mm / 60 mm
Diameter:	25mm (SW24)
Weight:	ca. 350g
Material:	Brass Nickel Plated

Approval

ATEX, IECEx, UKEX, EAC

Marking

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

Further Information

Please consult the installation instructions.

Ordering Information

Part number:

Example: IAL8EX H K S **C**

- IAL8EX: Quintherm IAL8EX
- H: Temperature range -55°C…+110°C
- K: Terminal block (K)
- S: Small heating cables 6x12mm - ILL..s ,ILH, ILS(S) / Wide heating cables 7x14mm - ILLW, ILMw (B)
- **C: Thermostat mechanical (C)**

Alternative Products

IRM2Ex	Mechanical thermostat in M20 cable gland
IRM2Ex/AG	Mechanical thermostat mounted in Enclosure

Further Products

ILLw, ILM, ILH, ILS self-limiting parallel heating cables.

IPL…/Qx

Electrical heating tape for temperature maintenance or frost protection of pipework or vessels in non-hazardous area.

Constant Wattage Heating Tape non-Ex

200°C

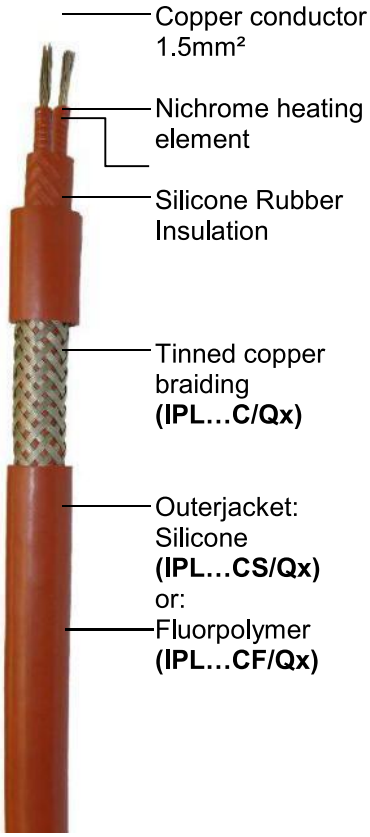
- Temperature resistant up to 200°C
- Can be cut to length without wastage
- Outputs available up to 50W/m
- High flexibility
- Available for 208 - 277V AC (110 - 120V AC upon request)

Description

IPL 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-tolength feature or field fabricated heating cable is preferred.

IPL is approved for use in non-hazardous areas. 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.



Options

IPL…C With tinned copper braid for mechanical protection and an effective grounding.

IPL…CS Silicone outerjacket over the braiding provides additional protection.

IPL…CF Fluoropolymer outerjacket provides protection from aggressive chemicals and vapours.

IPL…/Qx

Technical Data

Max. Temperature:
Power On: see table
Power Off: 200°C

Minimal Installation Temperature: -40°C

Cross Section: 1.5mm²

Power Supply: 208 - 277V AC

Max. Resistance of Protective Braid: 18,2 Ohm/km

Weights and Dimensions:

Type	Nom. Dimensions (mm)	Weight Kg/100m	Min. Bending (mm)	Cable Glands
IPL…C	9.4 x 6.2	11.7	12	M16
IPL…CS	11.4 x 8.2	14.3	15	M20
IPL…CF	10.2 x 7.0	14.3	25	M20

Structure

Heating Element: Nickel-Chromium
Power Conductors: Tin Plated Copper 1.5mm²
Conductor Insulation: Silicone Rubber
Primary Insulation: Silicone Rubber
Braiding: Tinned Copper
Outerjacket: Silicone Rubber
or Fluoropolymer

Ordering Information

Example:

IPL 50 2 C S

Quintherm IPL
Output 50W/m
Supply Voltage 220-240V (2)
Supply Voltage 110-120V (1)
Tinned Copper Braid (C)
Silicone Rubber Outerjacket (S)
Fluoropolyme Outerjacket (F)

Further Information

Please consult the installation instructions.

Maximum Pipe/ Workpiece Temperature

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.
For worst case conditions, the temperature of steel pipes should be limited to the following levels:

Output (W/m)	Maximum Pipe Temperature (°C)		
	IPL…C	IPL…CS	IPL…CF
6.5	190	190	190
13	180	185	185
23	150	160	160
33	110	115	115
50	75	80	75

Maximum Circuit Length

Output (W/m)	Max. Circuit Length		Zone Length	
	115V	230V	115V	230V
6.5	82m	164m	1000mm	1500mm
13	58m	116m	800mm	1100mm
23	44m	87m	900mm	1000mm
33	36m	73m	750mm	1000mm
50	30m	59m	1000mm	1000mm

Power Conversion Factors

115V Heating Tape		230V Heating Tape	
277V	Factor 5.80	277V	Factor 1.45
230V	Factor 4.00	240V	Factor 1.09
208V	Factor 3.27	220V	Factor 0.91
120V	Factor 1.09	208V	Factor 0.82
110V	Factor 0.91	115V	Factor 0.25

Accessories

Quintex offers a complete line of accessories, temperature controller, connection sets as well as different enclosures. These products are recommended for a failure free operation.

IPH…/Qx

Electrical heating tape for process temperature maintenance of pipework and vessels in hazardous area.

Constant Wattage Heating Tape Ex

285°C

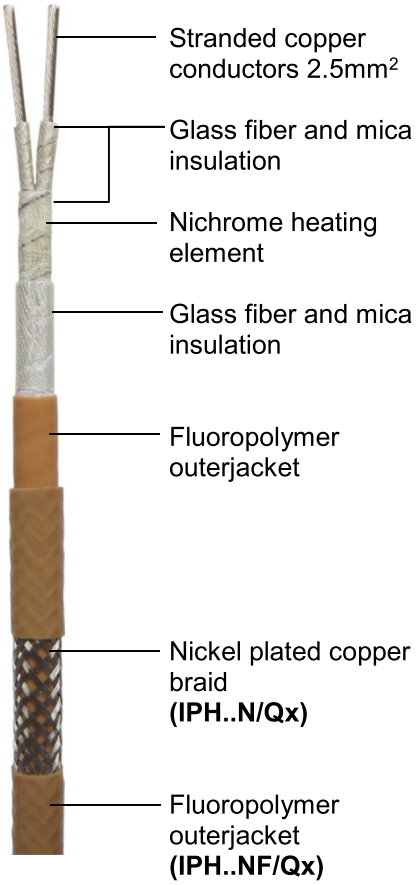
- Temperature resistant up to 285°C
- Can be cut to length without wastage
- Outputs available up to 70W/m
- Full range of controls, accessories and approvals
- Available in 220..240V AC (110..120V AC on request)

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..N A nickel plated copper braid provides mechanical protection and (where needed) an effective grounding.

IPH..NF Fluoropolymer outerjacket over nickel plated copper braid provides protection against corrosive chemicals or vapours.

Technical Data

Max. Temperature:
Power On: see table
Power Off: 285°C
Min. Installation Temperature: -40°C

Power Supply: 220-240V AC
Cross Section: 2.5mm²
Temperature Class: see table right side

Weight and Dimensions:

Type	Nominal Dimensions (mm)	Weight kg/100m	Min. Bending Radius (mm)	Gland Size
IPH..	8.8 x 6.0	12	25	M20
IPH..N	9.6 x 6.8	16	30	M20
IPH..NF	10.3 x 7.5	19	35	M20

Approvals

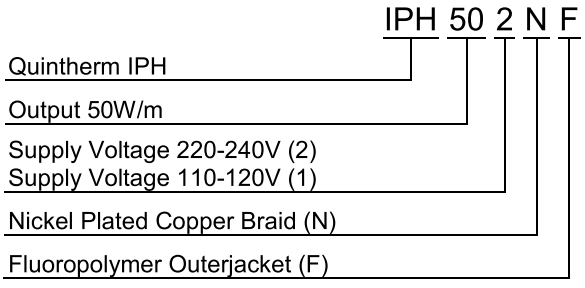
ATEX, IECEx, EAC

Structure

Heating Element: Nickle - Chromium
Power Conductor: Nickel Plated Copper 2.5mm²
Conductor Insulation: Glass Fiber - Mica
Primary Insulation: Fluoropolymer
Braid: Nickel Plated Copper
Outerjacket: Fluoropolymer

Ordering Information

Example:



Further Information

Please consult the installation instructions for IAPH4BS.

Maximum Pipe/ Workpiece Temperature

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.
For worst case conditions, the temperature of steel pipes should be limited to the following levels:

Type	Output (W/m)	T6	T5	T4	T3	T2	T1	Non-Ex (°C)
IPH...	10	Not Approved						275
	30							239
	50							192
	70							133
IPH..N	10	43	60	100	181	275	275	275
	30	-	-	25	114	234	234	234
	50	-	-	-	49	186	186	186
	70	-	-	-	-	125	125	125
IPH..NF	10	39	59	106	186	275	275	275
	30	-	-	20	133	243	243	243
	50	-	-	-	64	201	201	201
	70	-	-	-	-	147	147	147

Mamimum Circuit Length

Output (W/m)	Max. Circuit Length		Zone Length	
	115V	230V	115V	230V
10	79m	152m	1.000mm	
30	46m	88m		
50	35m	68m		
70	30m	56m		

Power Conversion Factors

115V Heating Tape		230V Heating Tape	
277V	Factor 5.80	277V	Factor 1.45
230V	Factor 4.00	240V	Factor 1.09
208V	Factor 3.27	220V	Factor 0.91
120V	Factor 1.09	208V	Factor 0.82
110V	Factor 0.91	115V	Factor 0.25

Accessories

Quintex offers a complete line of accessories, temperature controllers, connection kits as well as junction boxes. These products are recommended for a failure free operation.

IPS…/Qx

Electrical heating tape for process temperature maintenance of pipework and vessels in hazardous area.

Constant Wattage Heating Tape Ex

500°C

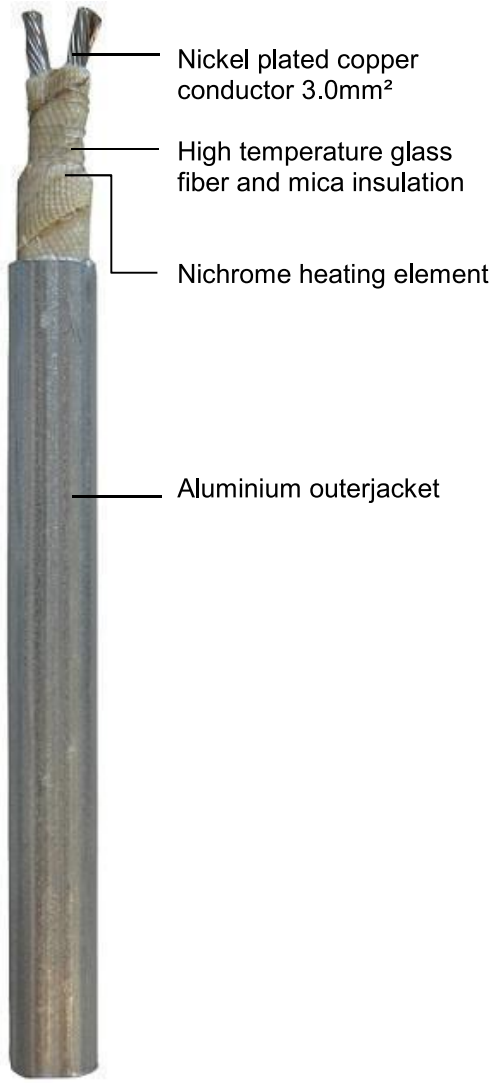
- Temperature resistant up to 500°C
- Can be cut to length without wastage
- Outputs available up to 150W/m
- Full range of controls, accessories and approvals
- Available for 220..277V AC
- 110..120V AC upon request

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-tolength 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.



Technical Data

Temperature Resistant:	
Continuous:	500°C
Min. Installation Temperature:	-40°C
Min.Operating Temperature:	-65°C
Power Supply:	12-277V AC
Cross Section:	3.0mm²
Temperature Class:	T1 – T5
Dimensions Nominal (in mm):	10.0 x 7.0
Weight (Kg/100m):	16.5
Min. Bending Radius (in mm):	25

Approval

ATEX, IECEx, EAC

Structure

Heating Element:	Nickel-Chromium
Power Conductor:	Nickel Plated Copper 3mm²
Conductor Insulation:	Glass Fiber/ Mica
Primary Insulation:	Glass Fiber/ Mica
Outerjacket:	Aluminium

Ordering Information

Example: IPS 50 2 A

- Quintherm IPS
- Output 50W/m
- Supply Voltage 220-277V (2)
  Supply Voltage 110-120V (1)
- Aluminium Outerjacket

Accessories

Quintex offers a complete range of accessories including termination/ splice kits, end seals, junction boxes and controls. When used in hazardous areas, only use approved components.

Maximum Pipe/ Workpiece Temperature

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.
For worst case conditions, the temperature of steel pipes should be limited to the following levels:

Type	T6	T5	T4	T3	T2	T1	Non-Ex (°C)
IPS152A	-	36	71	160	289	350	350
IPS302A	-	11	28	100	246	323	323
IPS502A	-	-	-	39	178	276	276
IPS1002A	-	-	-	-	48	140	140
IPS1502A	-	-	-	-	-	36	36

Maximum Circuit Length

Output (W/m)	Max. Circuit Length		Zone Length	
	115V	230V	115V	230V
15	59m	118m	1.000mm	
30	42m	83m		
50	32m	64m		
100	23m	46m		
150	19m	37m		

Power Conversion Factors

115V Heating Tape		230V Heating Tape	
125V	Factor 1.18	277V	Factor 1.45
120V	Factor 1.09	240V	Factor 1.09
110V	Factor 0.91	220V	Factor 0.91
100V	Factor 0.76	208V	Factor 0.82

IAP_4B_

Silicon termination set for use in hazardous area.

Termination Set Ex

- Compact design
- Temperature resistant up to 200°C
- Quick and easy assembled
- Applicable with different types of constant wattage heating tapes
- For various constant-wattage heating cables

Description

The termination kits of the IAP_4-series are silicon-made termination parts which contain power supply, end seal, a special cable gland and various accessories. These termination kits can be used to connect the heating circuit directly in an Ex e approved junction box e.g. AG...Ex or thermostat enclosure IR2M...Ex.

The high temperature resistance up to 200°C allows the connection technology to be used for all constant-heating heating cables of the types IPH and IPS as well as IPL (non Ex).

Technical Data

Temperature Resistant:	-60°C…200°C
Material:	Silicone
Length Connection Sleeve:	125 mm
Length End Seal:	66 mm

Approval

ATEX, IECEx, UKEX, EAC

Further Information

Please consult the installation instructions!

Additional Products

AG 101 Ex:	Ex-Junction box for 1-3 heating circuits
IR2M0012Ex:	Ex-Capillary thermostat 0…+120°C for 1 heating circuit

Ordering Information

IAPH4BS:	Termination set for IPH
IAPH4BA:	Connection set for IPH
IAPH4BE:	End Seal for IPH
IAPS4BS:	Termination set for IPs
IAPS4BA:	Connection set for IPS
IAPS4BE:	End Seal for IPS
IAPL4BS:	Termination set for IPL
IAPL4BA:	Connection set for IPL
IAPL4BE:	End Seal for IPL

non Ex

Connection set also available with brass cable gland

Questionaire for heating systems

General Information:	
Company:	Contact person:
Street	Zip Code / City
Telephone	Fax Number
Email:	Mobil:

Pipe Information:	
Length[m]	Nominal Diameter[DN,mm]:
Material	Wall thickness[mm]
Internal pipe coating	
No. flanges	No. of supports
No. of valves	No. Pumpes
Insulation material	Insulation thickness[mm]
Therm. Conduct. [W/m K]:	

Tank Information	
Diameter[m]	Height/length[m]
Material	Wall thickness[mm]
Tank position: Vertikal O Horizontal O	
Roof: flat O dome O	Bottom: flat O dome O
If conical: Cone height [m]	
Min. product content[m]	Max. product content[m]
Insulation material	Insulation thickness[mm]
Therm. Conduct. [W/m K]:	

Temperaturen:	
Maintain temperature[°C]	Max. ambient temperature[°C]
Min. ambient temperature[°C]	Wind velocity[m/s]
Max. allowed temperature[°C]	Max. allowed temperature tank [°C]
Max. allow. Product temp.[°C]	Max. operation temp.[°C]

Additional Data:	
Electrical Data	Remarks:
Power supply [V] Frequency [Hz]	
Typ of electrical net	
Ex-Area	
Gas O Dust O	
Temperatureclass 1 O 2 O 3 O 4 O 5 O	

ISK…7PFF-H/L

Electrical heating cable for frost protection or temperature maintenance of pipework and vessels in hazardous area.

Flexible Series Resistance Heating Tape Ex

260°C

- Quick and easy to assemble
- Constant power output
- Highly flexible and chemical resistant
- Temperature resistant up to 260°C (suitable for high pressure steam cleaning)
- Long heating circuits possible (>250m)

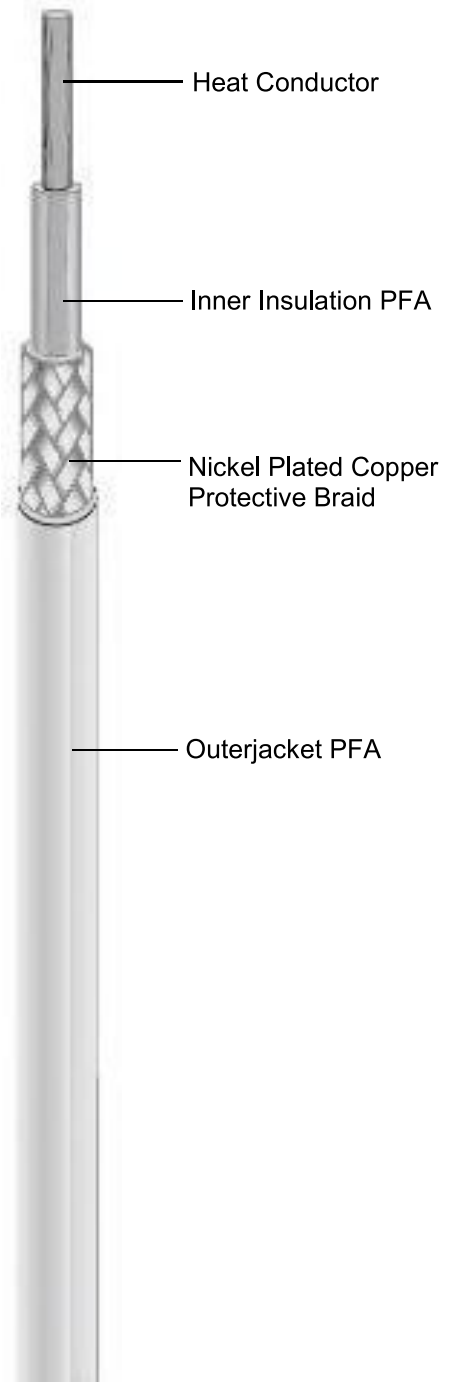
Description

Quintherm ISK single core heating cable is easy to use and install due to its light and flexible construction. It is rugged and safe for use in most hazardous area industrial applications. The materials

of the heating cable are highly resistant to chemical attack and mechanical abuse.

The specific resistance of ISK cables allow the power output to increase or decrease by shortening or lengthening the heating cable respectively.

The high temperature resistance up to 260°C allows for use even under difficult conditions.



Technical Data

Nominal Voltage:	450/750V AC
Tested Voltage:	2.5kV
Temperature Resistant:	-60°C…+260°C
Resistance of Braiding:	<18.2 Ohm/km
Min. Inst. Temperature:	-60°C
Min. Bending Radius:	25mm for Ø >8mm 15mm for Ø ≤8mm
Max. Mechanical Stress:	4J tested ≥ 7.2 Ohm/km 7J tested < 4.4 Ohm/km

Approval

ATEX, IECEx, EAC

Resistance Chart ISK

Part Number	Ohm/km at 20°C	Outer Diameter (mm)
ISK 1R08 7PFF-H	1.08	10.20
ISK 1R71 7PFF-H	1.71	8.60
ISK 2R90 7PFF-H	2.90	7.60
ISK 4R40 7PFF-H	4.40	6.70
ISK 7R20 7PFF-H*	7.20	4.94
ISK 0010 7PFF-L	10.00	4.75
ISK 11R7 7PFF-L	11.70	4.60
ISK 0015 7PFF-L	15.00	4.42
ISK 17R8 7PFF-L	17.80	4.30
ISK 0025 7PFF-L	25.00	4.27
ISK 31R5 7PFF-L	31.50	4.59
ISK 0050 7PFF-L*	50.00	4.27
ISK 0065 7PFF-L	65.00	4.11
ISK 0080 7PFF-L	80.00	4.01
ISK 0100 7PFF-L*	100.00	4.56
ISK 0150 7PFF-L	150.00	4.27
ISK 0180 7PFF-L	180.00	3.96
ISK 0200 7PFF-L	200.00	4.10
ISK 0230 7PFF-L	230.00	4.10
ISK 0320 7PFF-L*	320.00	4.23
ISK 0360 7PFF-L	360.00	3.82
ISK 0380 7PFF-L	380.00	4.13
ISK 0450 7PFF-L	450.00	4.10
ISK 0480 7PFF-L*	480.00	4.01
ISK 0600 7PFF-L	600.00	3.90
ISK 0650 7PFF-L	650.00	3.87
ISK 0700 7PFF-L	700.00	3.83
ISK 0810 7PFF-L	810.00	3.99
ISK 1000 7PFF-L*	1000.00	3.89
ISK 1440 7PFF-L*	1440.00	3.74
ISK 1750 7PFF-L	1750.00	3.70
ISK 2000 7PFF-L	2000.00	3.92
ISK 3000 7PFF-L*	3000.00	3.75
ISK 8000 7PFF-L*	8000.00	3.47

* on stock available
Delivery time for not available types 4-6 weeks. Minimum order quantity: 500m

IAK8EK

Connection kit for single core heating cables for use in hazardous area.

Termination Kit Ex

- Temperature resistant up to 190°C
- Current rating of 20A
- For single core cables ISK etc.
- Brass nickel plated, thus very solid
- Stainless steel version upon request
- Compact design

Description

The IAK8EK system is a very easy and fast to install connection kit for connecting cold lead and heating cable or for reparation of heating cables based on a screw connection.

Because of the very compact design the set can be placed between surface and insulation.
There is no blow-heater or special skills required for assembling.

Technical Data

Temperature range:	-60…190°C
Cable Capacity of Seal:	3.6 – 6.5mm
Max. Current Rating:	20A AC
Supply Voltage:	12…400V AC
Terminal Diameter:	2.5mm²
Protection Class:	IP65
Length incl. glands:	110mm
Diameter:	25mm
Weight incl. Glands:	168g
Material:	Brass Nickel Plated

Approval

ATEX, IECEx, UKEx, EAC

Marking

II 2G Ex eb IIC T6/T5/T4/T3/T2 Gb
II 2D Ex tb IIIC T135°C Db IP65

Further Information

Please consult the installation instructions!

Ordering Information

Part number:
IAK8EK: Connection set for single core heating cables.

Alternative Products

Part number:
IAK1EG1: Connection set for single core heating cables up to 32A
IAK1EG2: Connection set for single core heating cables up to 98A

Further Products

Part number:
IAKKE1Ex: Cold lead, 1.2m
ISK: Single core heating cable, Ex
AG 101Ex: Ex junction box 122x120x90mm (different types see data sheet)

IAK1EG1

Connection sleeve for single core heating cables
for use in hazardous area.

Termination Kit Ex

- Compact design
- Temperature resistant up to 200°C
- Easy and fast to assemble
- Protection class IP67
- Usable for all ISK heating cables

Description

The IAK1EG1 system contains an Ex-termination sleeve which is easy and fast to assemble. It is based on a screw connection.

This sleeve connects a ISK heating cable to a special ISK cold lead to connect in a termination-/ controller enclosure. Thereby an increase of temperature in the enclosure is effectively avoided.
Because of the very compact design the sleeve can be placed between surface and insulation.

Technical Data

Voltage/ Current:	max. 750V / 32A
Temperature Range:	-40°C…+200°C
Heating Cables:	ISK…PF
Cross Section:	up to 2.5mm²
Length:	132mm
Diameter:	30.5mm
Protection Class:	IP67

Approval

ATEX

Kennzeichnung

II 2G Ex e II -40°C ≤ T_p ≤ +200°C
II 2D Ex tD A21 IP67 -40°C ≤ T_p ≤ +200°C

Ordering Information

Part number:
IAK1EG1: Ex-sleeve for ISK heating cables

Alternative Products

Part number:
IAK1EG2: Ex-sleeve for ISK heating cables up to 98A

Further Products

Part number:
AG 101 Ex: Ex-enclosure for 1-3 heating circuits (further information please see data sheet for Ex-enclosures)
IAKKE1Ex: Ex-cold lead 2.5mm², length 1.2m

Further Information

Please consult the installation instructions!

IAKKE1 Ex

Cold lead for single-core heating cables for use in hazardous area.

Terminal Accessory Ex

- Compact design
- Direct termination in enclosure
- Easy and quick to assemble
- Suitabe for all ISK heating cables
- Customized lengths possible

Description

The IAKKE1 Ex system contains a 1,2m long 2,5m² cold lead, which will be connected with a ISK single core heating cables by using a special termination kit.

The low resistance of the cold lead prevents, that the cold leads get warm. A warm-up of the used enclosure/controller is effectively prevented.
The termination of this cold lead is very easy and does not require special skills.

Technical Data

Length:	1.2m
Cable Glands (Plastic):	M20x1.5
Material Outerjacket:	PFA
Cross Section:	2,5mm²
Resistance:	7.2 Ohm/km
Length of Connection Wire:	120mm

Approval

ATEX, IECEx, EAC

Marking

II 2G Ex e IIC Gb
II 2D Ex tb IIIC Gb

Further Information

Please consult the installation instructions!

Ordering Information

Part number:
IAKKE1 Ex: Ex-cold lead 2.5mm² 1.2m
IAKKE2 Ex: Ex-cold lead 4.0mm² 1.2m
IAKKE3 Ex: Ex-cold lead 6.0mm² 1.2m

Alternative Products

Part number:
IAKKE1: non-Ex-cold lead 2.5mm² 1.2m
IAKKE2: non-Ex-cold lead 4.0mm² 1.2m
IAKKE3: non-Ex-cold lead 6.0mm² 1.2m

Further Products

Part number:
IAK8EK: Connection set for single-core heating cables.
IAK1EG1: Ex-connection sleeve 32A
IAK1EG2: Ex-connection sleeve 98A
AG 101 Ex: Ex-enclosure 122x120x90mm
(for different versions please Ex-enclosure data sheet)

IAKAT1

Termination kit in shrinking technology for single core heating cables for us in safe area.

Termination Kit non-Ex

- Compact design
- Temperature resistant up to 120°C
- Easy and fast to assemble
- Usable for all heating cables type ISK

Description

The IAKAT1 system contains an easy and fast to assemble termination kit based on shrinking technology.

Because of the compact design it is easy to use below the thermal insulation.
The IAKAT1 enables to connect a heating tape with a special cold lead. With this cold lead it is easy to connect to a termination box or a controller box.

The illustrated manual helps for an error-free installation.

Technical Data

Max. Workpiece Temperature:	120°C
Heating Cables:	ISK
Cross Section:	up to 2.5mm²
Length of Terminal Block:	20mm
Length of Shrinking Cable:	120mm

Further Information

Please consult the installation instructions!

Ordering Information

Part number:	
IAKAT1:	Termination kit for ISK heating cables

Alternative Products

Part number:	
IAK8EK:	Ex-sleeve for ISK heating cables up to 20A

Further Products

Part number:	
AG 101:	Termination box for up to 3 self-limiting heating circuits or 1 single core heating circuit
IAKKE1:	Cold lead 2.5mm², length 1,2m

IAKKE1

Cold lead for single core heating cables for use in safe area.

Termination Kit non-Ex

- Compact design
- Quick and easy to assemble
- Applicable for all ISK heating cables
- Ready-made to connect to a suitable junction box

Description

The IAKKE1 system contains a 1,2m long 2,5mm² cold lead, which will be connected to the heating cable using a special termination kit.

The very low resistance of the cold lead prevents temperature increases. Thus, a heating of the junction box/ control unit can be effectively prevented.

The cold end can be connected to the heating quickly, easily and without special knowledge.

Technical Data

Length:	1.2m
Applicable heating cables:	ISK
Cross section:	2.5mm²
Resistance:	7.2Ohm/km
Length of connection wire:	120mm

Ordering Information

Part Number: IAKKE1

Alternative Products

Part Number:

IAKKE1Ex
(2.5mm², 7.2Ohm/km for hazardous area)
IAKKE2Ex
(4.0mm², 4.4Ohm/km for hazardous area)
IAKKE3Ex
(6.0mm², 2.9Ohm/km for hazardous area)

Further Products

Part number:	
IAKAT1:	Non-Ex termination kit in shrinking technology
AG 101:	Junction box for up to 3 self-limiting heating circuits or single-core heating circuits

Further Information

Please consult the installation instructions!

Testing and Acceptance Report

Building:	Project:	Drawing:
Cabling from:	to:	Ex-Zone: Zone _____ T ___
Electrical Supply:		

General		Controller and Limiter unit	
Type of heating cable:			
Length of heating cable	m	Fuse control circuit	A
P/l (Power per meter)	W/m	Type of controller	
P (Entire heating power)	W	Temperature setting of controller	°C
Supply voltage	V	Function of controller ok	Yes/No
Connection voltage	V	Sensor broken signal ok	Yes/No
Normal current	A	Amount of limiters	pcs
Supply cable		Type of limiter	
Fuse	A	Temperature setting of limiter	°C
Amount of connection units	pcs	Function of limiter ok	Yes/No
Amount of supply units	pcs	Sensor broken signal ok	Yes/No
Amount of cold leads	pcs	Function - Disconnection when broken wire	Yes/No
Amount of temperature sensors	pcs	Setting of limiter secured	Yes/No
Construction of temperature sensor		Amount of ELCB (Earth leakage circuit breaker)	pcs
Type of temperature sensor		Current of ELCB	A
Test made according DIN VDE 0100 part 610	Yes/No	Function of ELCB ok	Yes/No
Measurement of temperature profile	Yes/No		
Insulation Measurement		**Operation and Fault signals ok**	
Measurement device:		Function ok	Yes/No
Insulation test voltage	V	Signal low temperature	°C
Insulation resistance heating line section 1	MΩ		
Insulation resistance heating line section 2	MΩ		
Insulation resistance heating line section 3	MΩ		
Junction boxes		**Visual Inspection**	
Manufacturer:		Insulation complete and weather proof	
Type:		Identification / Marking labels	
Protection class: IP		Junction boxes closed	
EC-Certificate:		Documentation	
Manufacturer:		**Raiser**	
Type:		Name:	
Protection class: IP		Date:	
EC-Certificate:		Sign:	

ISM…VA/CuNi (System QX-SH)

Electrical heating tape for temperature maintenance of pipework and vessels in hazardous area.

Constant Wattage Heating Tape Ex

650°C

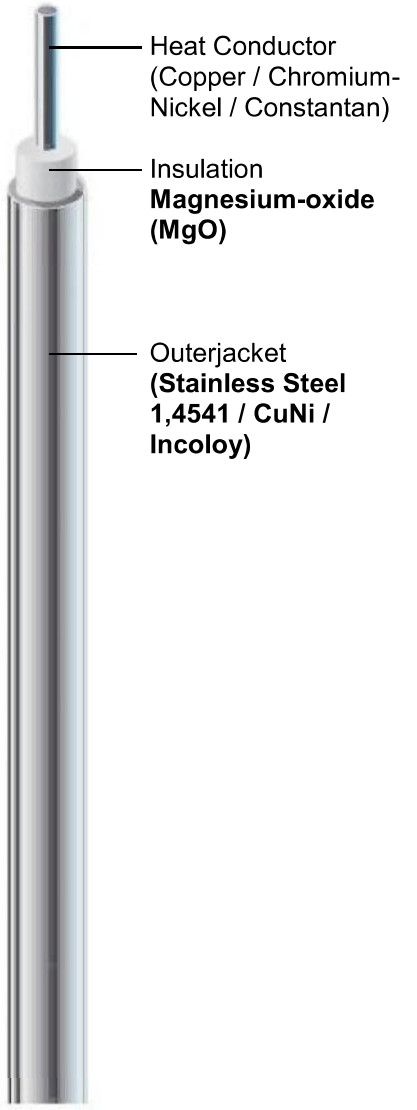
- Temperature resistant up to 650°C (depending on version)
- Extremely high output possible
- High chemical resistance
- Large range of approvals
- Also available as ready-to-use heating circuit

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
Testing Voltage:	>1,2kV
Material Heat Conductor:	Copper, Chromium-Nickel, Constantan
Insulation:	Magnesium-oxide
Min. Installation Temperature:	-20°C
Min. Bending Rasius:	3 x outer Dia. or 5 x outer Dia. (Ex)

Approval

Component:	upon request
System:	ATEX

Resistance Chart ISM

Part Number CuNi	Ohm/km at 20°C	Material Conductor	Outer Diameter (mm)	Resistance Outerjacket (Ohm/km)
ISM0011CuNi	11.00	Copper	4.90	58.30
ISM0017CuNi	17.00	Copper	4.60	65.60
ISM0025CuNi	25.00	Copper	3.70	93.30
ISM0040CuNi	40.00	Copper	3.40	107.60
ISM0063CuNi	63.00	Copper	3.20	121.00
ISM0160CuNi	160.00	Constantan	4.90	58.81
ISM0250CuNi	250.00	Constantan	4.40	71.99
ISM0400CuNi	400.00	Constantan	4.00	87.69
ISM0630CuNi	630.00	Constantan	3.70	103.10
ISM1000CuNi	1000.00	Constantan	3.40	123.00
ISM1600CuNi	1600.00	Constantan	3.20	139.60

Part Number Stainless Steel	Ohm/km at 20°C	Material Conductor	Outer Diameter (mm)	Resistance Outerjacket (Ohm/km)
ISM0160VA	160.00	Chromium-Nickel	4.04	92.38
ISM0250VA	250.00	Chromium-Nickel	3.95	137.60
ISM0400VA	400.00	Chromium-Nickel	3.97	173.70
ISM0630VA	630.00	Chromium-Nickel	3.96	152.40
ISM1000VA	1000.00	Chromium-Nickel	3.95	187.00
ISM1600VA	1600.00	Chromium-Nickel	3.87	215.30
ISM2500VA	2500.00	Chromium-Nickel	3.99	235.80
ISM4000VA	4000.00	Chromium-Nickel	3.78	284.20
ISM6300VA	6300.00	Chromium-Nickel	3.89	284.20
ISM10k0VA	10000.00	Chromium-Nickel	4.03	284.20

Further resistance values available upon request.

Junction Box AG…

Glass fiber reinforced polyester enclosure for use in non-hazardous area.

Junction Box non-Ex

- Temperature resistant
- Resistant to chemical influences
- Antistatic
- Corrosion resistant/ UV-resistant
- Customized versions available upon request

Description

Junction Boxes made of glass fiber reinforced polyester to connect self-limiting-, single core- as well as mineral insulated heating-cables.

These enclosures are available in several versions and useful for almost all kind of trace heating application.

This box can be used in extremely environmental conditions and also chemically aggressive environments and resists exposure to mechanical stress.

Customized versions available upon request.

Technical Data

Dimensions (LxWxH in mm):

AG 99…	110 x 75 x 55
AG 101…	122 x 120 x 90
AG 102…	160 x 160 x 90
AG 103…	260 x 160 x 90

Protection Class: IP66

Ordering Information

For part numbers and specific data please see page 2.

Additional products

Part number:

IRM040b: Mechanical Capillary-thermostat, 122x120x90mm Temperature range 0°C..+40°C (for other temperature ranges see specific data sheet)

Further information

Please consult the installation instructions!

Standard Versions

Part number	Dimensions (in mm)	Cross-section	Cable Glands	Description
AG 99	110x75x55	2.5mm²	1x M20 2x M12	Sensor box for up to 2 sensors
AG 99 HK	110x75x55	2.5mm²	2x M20	Junction box 1 phase for 1 heating circuit
AG 101	122x120x90	6mm²	1x M25 3x M20	Junction box 1 phase for up to 3 heating circuits
AG 101 3P	122x120x90	6mm²	1x M25 3x M20	Junction box 3 phase for up to 3 heating circuits
AG 101 S	122x120x90	6mm²	1x M20 3x M20	Junction box equipped for star connection
AG 102	160x160x90	6mm²	1x M32 4x M20	Junction box 1 phase for up to 4 heating circuits
AG 102 3P	160x160x90	6mm²	1x M32 4x M20	Junction box 3 phase for up to 4 heating circuits
AG 103	260x160x90	6mm²	1x M32 6x M20	Junction box 1 phase for up to 6 heating circuits
AG 103 D	260x160x90	6mm²	1xM32 6xM20	Junction box 3 phase equipped for delta connection

Customized versions available upon request!

Ex-Junction Box AG…

Glass fiber reinforced polyester enclosure for use in hazardous area.

Junction Box Ex

- Temperature resistant
- Resistant to chemical influences
- Antistatic
- Corrosion-resistant / UV-resistant
- Customized versions available upon request

Description

Ex-Junction Boxes made of glass fiber reinforced polyester to connect self-limiting-, serial resistance- as well as mineral insulated heating-cables.

This enclosure series is available in different versions and can be used for almost all trace heating application.

This box can be used in extremely environmental conditions, chemically aggressive environments and it resists exposure to mechanical stress.

Customized versions available upon request.

Technical Data

Dimensions (LxWxH in mm):

AG 99…Ex	110 x 75 x 55
AG 101…Ex	122 x 120 x 90
AG 102…Ex	160 x 160 x 90
AG 103…Ex	260 x 160 x 90

Protection class:	IP65
Min. ambient temperature:	-60°C
Temperature class:	T6 at +40°C T5 at +55°C T4 at +60°C

Marking

II 2G Ex eb ia IIC T6 Gb
II 2D Ex tb IIIC T85°C Db

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

For part numbers and technical data please see page 2.

Additional Products

Part number IRM0012Ex:	Mechanical Ex-Capillary-Thermostat, 122x120x90mm Temperature range 0..+120°C (for other temperature ranges see specific data sheet)

Further Information

Please consult the installation instructions!

Ex-Junction Box AG...

Standard Versions

Part number	Dimensions (in mm)	Cross-section	Cable Glands	Description
AG 99 Ex	110x75x55	2.5mm²	1x M20 2x M12	Sensor-box for up to 2 Sensoren
AG 99 HK Ex	110x75x55	2.5mm²	2x M20	Junction box 1 phase for 1 heating circuit
AG 101 Ex	122x120x90	6mm²	1x M25 3x M20	Junction box 1 phase for up to 3 heating circuits
AG 101 3P Ex	122x120x90	6mm²	1x M25 3x M20	Junction box 3 phase for up to 3 heating circuits
AG 101 S Ex	122x120x90	6mm²	1x M20 3x M20	Junction box equipped for star connection
AG 102 Ex	160x160x90	6mm²	1x M32 4x M20	Junction box 1 phase for up to 4 heating circuits
AG 102 3P Ex	160x160x90	6mm²	1x M32 4x M20	Junction box 3 phase for up to 4 heating circuits
AG 103 Ex	260x160x90	6mm²	1x M32 6x M20	Junction box 1 phase for up to 6 heating circuits
AG 103 D Ex	260x160x90	6mm²	1xM32 6xM20	Junction box 3 phase equipped for delta connection

Customized versions available upon request!

AG 101 EOL .. Ex

End of circuit LED lamps in polyester enclosure for use in hazardous area.

Termination Set Ex

- Temperature resistant
- Corrosion-resistant/ UV-resistant
- Direct heating tape connection
- Installation on pipe with mounting feet

Description

Ex-End of circuit lamp made of glass fiber reinforced polyester to connect self-limiting heating-cables.

The EOL lamps are used for visual operation indicators for electrical heat-tracing systems.

This box can be used in extremely environmental conditions, chemically aggressive environments and it resists exposure to mechanical stress

Technical Data

Dimensions	(LxBxH in mm):
AG 101 EOL	122 x 120 x 90
Mounting unit	115 x 110 x 42
Protection class	IP66
Min. ambient temp:	-40°C
Temperature class:	T6 bei +50°C

Marking

II 2G Ex ed IIC T6 Gb
II 2D Ex tb IIIC T80°C Db IP66

Approval

ATEX, IECEx, EAC

Further Informations

Please consult the installation instructions!

Ordering Information

Part number:	
AG 101 EOL 1G Ex	EOL-Lamp with green LED, 1x M20
AG 101 EOL 1R Ex	EOL-Lamp with red LED, 1xM20
AG 101 EOL 2G Ex	EOL-Lamp with green LED, 2xM20
AG 101 EOL 2R Ex	EOL-Lamp with red LED, 2xM20
AG 101 EOL DG Ex	EOL-Lamp with green LED, 1x M20, with IAL1D1 mounting unit
AG 101 EOL DR Ex	EOL-Lamp with red LED, 1x M20, with IAL1D1 mounting unit

Additional Products

Part Number:	
IAL4BA	Silicon termination set

IRM1/…

Mechanical mini-thermostat for frost protection or temperature maintenence applications in non-hazardous area.

Mechanical Temperature Controller non-Ex

- Robust and compact design
- 16A/230V AC switching capacity
- Protection class IP66/68
- Narrow switching hysteresis
- Various temperature ranges available
- Customized lead length available

Description

This Mini-Thermostat is used to monitor the ambient temperature of heating systems as well as for the control of internal temperatures inside protective transmitter boxes or control and switchgear cabinets.

The switching contact is moulded in a M20x1,5 cable gland. Due to the compact design it is suitable for many applications. It is complete with a nylon locknut for securing in clearance hole.

The IRM1 thermostat is available with different switching points or customised lead lengths.

Technical Data

Rated Voltage:	max. 250V AC
Rated Current:	max. 16A AC
Switching Contacts:	1x NC
Switching Points:	4°C On; 11°C Off
Switching Tolerance:	+/- 3K
Cable Gland:	M20x1,5
Material:	PVDF
Dimensions:	L: 30mm x Ø: 22mm
Across Flats:	24mm
Connection Leads:	2x 1,5mm²
Material:	Radox 125
Length:	400mm/1000mm (further lengths upon request)
Protection Class:	IP66/68
Ambient Temperature:	-50 / +125°C
Weight:	50g

Ordering Information

Part number:	
IRM1/400:	Mini-Thermostat 4/11°C On/Off with 400mm connection leads
IRM1/1000:	Mini-Thermostat 4/11°C On/Off with 1000m connection leads

Further temperature ranges and lead lengths available upon request.

Alternative Products

Part number:	
IRM1 AG:	…with 80x80x52mm enclosure
IRM2Ex/400:	…Ex Mini-Thermostat
IRM…b:	control thermostat (adjustable)
IR2M…Ex:	Ex control thermostat (adjustable)
IRE168DS:	Electronic temperature controller (see datasheet)

Further Products

Part number:	
MW 3:	L-shaped mounting bracket

IRM1AG

Mechanical mini-thermostat in enclosure for frost protection applications for use in non-hazardous area.

Mechanical Controller non-Ex

- Compact design
- High switching capacity
- Protection class IP65
- Stable polycarbonate enclosure
- Different temperature ranges available

Description

The Mini-Thermostat IRM1AG will usually be used for ambient temperature controlling.
The IRM1 switches heating circuits directly up to 16A or alternatively with load contactors.

The Thermostat is installed in a stable polycarbonate enclosure. The enclosure is fitted with two M20 cable glands for supply and heating cable.

Other temperature ranges are available on request.

Technical Data

Supply Voltage:	250V AC
Switching Contact:	1 NC 16A / 250V AC
Switching Points:	4°C On / 11°C Off
Hystesis:	±3K
Cable Glands:	2xM20
Protection Class:	IP65
Dimensions (LxWxH in mm):	80 x 80 x 52
Material Enclosure:	Polycarbonate
Ambient Temperature:	-35…+70°C

Further Information

Please consult the installation instructions!

Ordering Information

Part number:
IRM1AG: Mini-thermostat for frost protection, installed in enclosure.

Alternative Products

Part number:
IRM1/400: IRM1 mini-thermostat in M20 cable gland with 400mm connection wires.

Further Products

Part number:
ILLw102CT/QX: Self-regulating heating tape for frost protection.
(Various types and wattages available – see datasheet.)

IRM1AG/Poly

Mechanical mini-thermostat in glass fiber reinforced polyester enclosure for frost protection applications in non-hazardous area.

Mechanical Controller non-Ex

- Compact design
- High switching capacity
- Protection class IP66
- Rugged polyester enclosure
- Different temperature ranges available

Description

The Mini-Thermostat IRM1AG/Poly is usually be used for ambient temperature controlling. It switches heating circuits directly up to 16A or alternatively with load contactors.

The thermostat is installed in a rugged glass fiber reinforced polyester enclosure with 2 M20 cable glands for heating circuit and supply cable.

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
Cable Glands:	2xM20
Protection Class:	IP 66
Dimensions (LxWxH in mm):	110 x 75 x 55
Material Enclosure:	Glass fiber reinforced polyester

Further Information

Please consult the installation instructions!

Ordering Information

Part number:
IRM1AG/Poly: Mini-thermostat for frost protection applications, installed in polyester enclosure.

Alternative Products

Part number:
IRM1/400: IRM1 mini-thermostat without enclosure, molded in M20 cable glands with 400mm connection wires.

Further Products

Part number:
ILLw102CT/QX: Self-regulating heating tape for applications.
(Various types and wattages available – see datasheet.)

Quintex GmbH – i_Park Tauberfranken 13 – 97922 Lauda-Königshofen – Germany
Tel: +49 9343 6130 -0 – Fax: +49 9343 6130 -105 E-Mail: info@quintex.info www.quintex.eu

IRM1Ex / IRM2Ex

Mechanical mini-thermostat for frost-protection applications, molded in a M20 cable gland. For use in hazardous area.

Mechanical Controller Ex

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

Description

The IRM_Ex 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 molded 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 Contact:	1 NC / 16A	
Switching Points:	4°C On / 11°C Off	
Temperature Class:	-60°C…+40°C	T6
	-60°C…+55°C	T5
	-60°C…+90°C	T4
	-60°C…+110°C	T4
Switching Tolerance:	±3K	
Protection Class:	IP68	
Supply Cable:	400mm 3G1.5mm²	
Cable Glands:	1x M20	

Marking

II 2G Ex mb IIC T4 Gb
II 2D Ex tb IIIC T100°C Db IP68

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

Part number:

IRM1Ex:	Plastic Ex-mini-thermostat for frost protection applications.
IRM2Ex:	Metal Ex-mini-thermostat for frost protection applications.

Further Information

Please consult the installation instructions!

IRM1Ex/AG / IRM2Ex/AG

Thermostat in enclosure for use in hazardous area.

Mechanical Controller Ex

- Compact design
- For up to 2 heating circuits
- 16A switching capacity
- Narrow switching hystesis
- Protection class IP66

Description

The IRM_Ex/AG features a bimetallic, compact design, combined with a high switching capacity.

It is appropriate for frost protection applications with heating tape or heating plates.

The thermostat is molded in a M20 thread which is installed in a glass fiber reinforced polyester enclosure.

You can connect up to 2 heating circuits on this pre-wired case.

Technical Data

Rated Voltage:	250V AC
Switching Capacity:	16A
Switching Points:	On 4°C Off 11°C
Switching Hysteresis:	+/- 3K
Min. Ambient Temperature:	-55°C
Max. Ambient Temperature:	+40°C (T6) +50°C (T5)
Protection Class:	IP66
Dimensions (LxWxH in mm):	122 x 122 x 90
Cable Glands:	2x M20, 1x M25

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

IRM1 Ex/AG

- Mechanical Controller
- Thermostat with plastic cable gland (1)
- Thermostat with metal cable gland (2)
- Ex-design
- In the adapter housing

Further Information

Please consult the installation instructions!

IRM1Ex/AG mini
IRM2Ex/AG mini

Mechanical mini-thermostat in glass fiber reinforced polyester enclosure for frost protection applications in hazardous area.

Mechanical Controller Ex

- Compact design
- Robust polyester enclosure
- Different temperature ranges available
- Narrow switching hysteresis
- High switching capacity
- Protection class IP66

Description

The IRM_Ex/AG mini is a mechanical bimetal thermostat. Because of the compact design and the high switching capacity of 16A it is well suited for frost protection applications with heating tapes as well as heating plates.

The very ruggedglass fibre reinforced polyester enclosure has 2x M20 glands for heating circuit / heating plate and supply cable.

Other temperature ranges are available on request.

Technical Data

Rated Voltage:	250V AC
Switching Pin:	1 NC / 16A
Switching Points:	4°C On/ 11°C Off
Switching Tolerance:	±3K
Protection Class:	IP66
Min. Ambient Temperature:	-55°C…+50°C
Dimensions (LxWxH in mm):	110 x 75 x 55
Enclosure Material:	Glas fiber enhanced polyester
Cable Glands:	2x M20

Marking

Enclosure:
II 2G Ex eb IIC T6 Gb
II 2D Ex tb IIIC T80°C IP66
Thermostat:
II 2G Ex mb IIC T4 Gb
II 2D Ex tb IIIC T100°C Db IP68

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

Ex-mini-thermostat for frost protection applications, installed in polyester enclosure
.
Partnumber:

IRM1Ex/AG mini: thermostat with plastic cable gland
IRM2Ex/AG mini: thermostat with metal cable gland

Alternative Products

Part number:
IRM2Ex/400: Mini-thermostat without enclosure, moulded in M20 metal cable gland with 400mm supply cable

Further Information

Please consult the installation instructions!

IRM….b

Mechanical capillary tube thermostat for use in non-hazardous area.

Mechanical Controller non-Ex

- Compact design
- Switching capacity 25A
- Protection class IP66
- Very rugged design
- Resistant to aggressive environment

Description

The controllers of the IRM-series are mechanical capillary tube line-sensing thermostats.

The black glass fiber reinforced polyester enclosure is very rugged and can be used to connect self-limiting- and single core heating cable.

The controller can be used for a switching capacity up to 25A. It switches off when reaching the set temperature.

Technical Data

IRM…	040b	0200b	50320b
Temperature range (°C)	0..40	0..200	50..320
Rating voltage (V AC)	250	250	250
Rating current (A)	25	25	25
Switching difference (K)	ca. 3	ca.5	ca.7
Max. sensor temperature (°C)	45	230	350
Protection class	IP66	IP66	IP66
Capillary tube length (mm)	1600	1600	1600
Sensor dimensions (mm)	5.8/126	3.0/179	3.0/179
Dimensions LxWxH (in mm)	122x120 x90	122x120 x90	122x120 x90
Glands M25	1x	1x	1x
Glands M20	2x	2x	2x
Cross section (mm^2)	4	4	4
Weight (kg)	1.2	1.2	1.2

Ordering Information

Part number:
IRM040b: 0°C..+40°C
IRM0200b: 0°C..+200°C
IRM50300b: 50°C..+320°C

Alternative Products

Mechanical Ex-capillary thermostat.

Part number:
IR2M-2050Ex: -20°C..+50°C
IR2M0012Ex: 0°C..+120°C
IR2M0019Ex: 0°C..+190°C
IR2M0630Ex: +60°C..+300°C
IR2M1450Ex: +140°C..+500°C

Further Information

Please consult the installation instructions!

IR2M…Ex

Mechanical capillary temperature controller for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 4/6mm²
- 4/6mm sensor diameter
- Resistant against chemical influences

Description

The Ex-Temperature Controller devices of the IR2M-Series are mechanical 2-point capillary temperature controller.

The black glass fiber enhanced polyester enclosure is very rugged and is used as a connector for single core heating cables as well as self-limiting heating cables.
The controller can handle a switching capacity of up to 25A.

When exceeding the adjusted temperature, the controller switches off.

Technical Data

Min. Ambient Temp.:	-55°C
Switching Capacity:	16A/230V 25A/230V (16A/400V upon request)
Material:	Glass Fiber Reinforced Polyester
Protection Class:	IP66
Temperature Class:	T6 at +40°C (25A) T4 at +55°C (25A) T6 at +50°C (16A) T4 at +80°C (16A)

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

ATEX, IECEx, EAC

Ordering Information

Part number:

IR2M-0205Ex	Temperature range: -20°C..+50°C
IR2M0012Ex:	Temperature range: 0°C..+120°C
IR2M0019Ex:	Temperature range: 0°C..+190°C
IR2M0630Ex:	Temperature range: +60°C..+300°C
IR2M1450Ex:	Temperature range: +140°C..+500°C

Further temperature ranges upon request.

Further Information

Please consult the installation instructions!

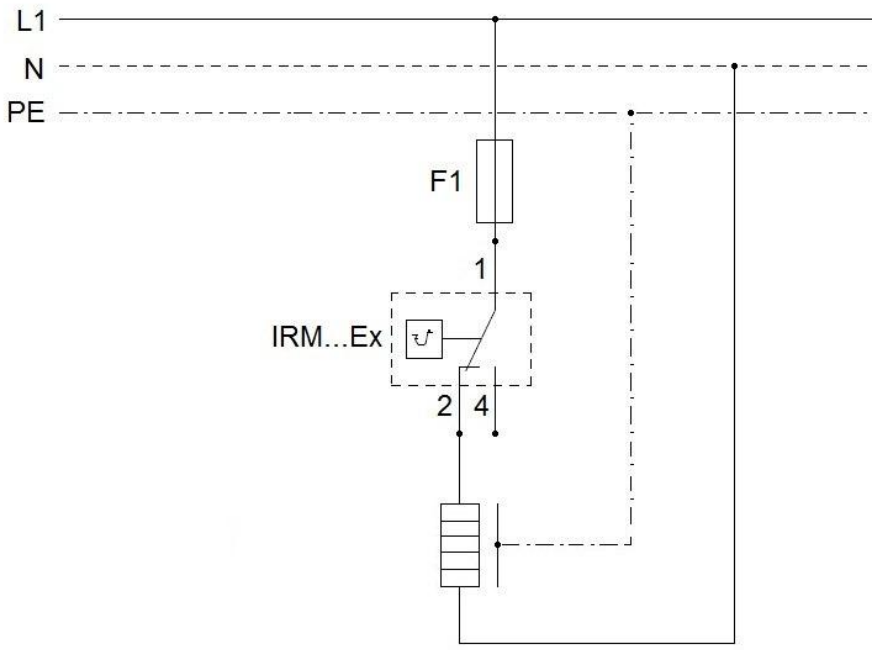
IR2M…Ex

Standard Versions

Additional Technical Data

Temperature Range (°C)	**-20…50**	**0…120**	**0…190**	**60…300**	**140…500**
Rating Voltage (VAC)	230	230	230	230	230
Switching Capacity (cos φ = 1) (A)	16 / 25	16 / 25	16 / 25	16 / 25	16 / 25
Switching Difference (%) of Full Scale Value approx	7	7	7	7	7
Max. Sensor Temperature(°C)	80	145	220	345	530
Protection Class	IP66	IP66	IP66	IP66	IP66
Capillary Tube Length (mm)	1000	1000	1000	1000	1000
Capillary Diameter (mm)	6	4	4	6	6
Dimensions (LxWxH in mm)	122x120x90	122x120x90	122x120x90	122x120x90	122x120x90
Cable Glands M20/M25	1/1	1/1	1/1	1/1	1/1
Clamping Zone M20/M25 (mm)	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17
Cross Section (mm²)	4/6	4/6	4/6	4/6	4/6
Weight (kg)	1.2	1.2	1.2	1.2	1.2

Wiring Diagram



IB2M…Ex

Mechanical fail-save protection temperature limiter for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 4/6mm²
- Sensor diameter 4/6mm
- Resistant to chemicals

Description

The Ex-fail-save protection temperature limiter devices of the IB2M-series are mechanical 2-point capillary temperature protection limiter.

The black glass fiber reinforced polyester enclosure is very rugged and serves as a connector for single core heating cables. The limiter can handle a switching capacity of 25A directly.

When exceeding the set temperature, the limiter switches off. The restart lockout gives additional safety, a manual reset is needed.

Technical Data

Min. Ambient Temperature:	-55°C
Switching Capacity:	16A/230V 25A/230V (16A/400V upon request)
Material:	Glass Fiber Reinforced Polyester
Protection Class:	IP66
Temperature Class:	T6 at +40°C (25A) T4 at +55°C (25A) T6 at +50°C (16A) T4 at +80°C (16A)

Ordering Information

Part number:

IB2M0719Ex	Teperature Range: +70°C..+190°C
IB2M1319Ex:	Temperature Range: +130°C..+190°C
IB2M1530Ex:	Temperatue Range: +150°C..+300°C
IB2M1450Ex:	Temperature Range: +140°C..+500°C

Further temperature ranges upon request.

Further Information

Please consult the installation instructions!

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

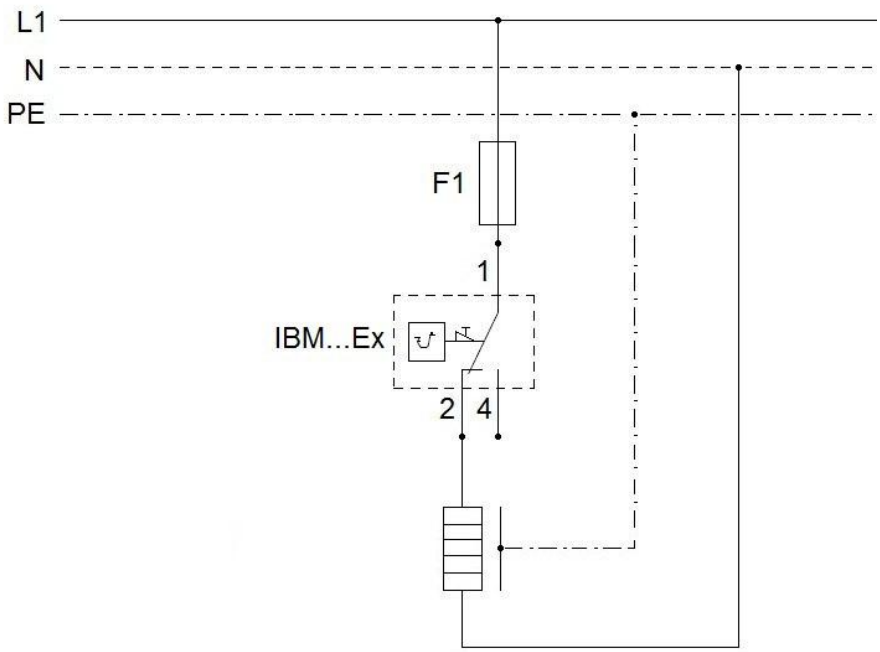
ATEX, IECEx, EAC

Standard Versions

Technical Data

Temperature Range (°C)	70-190	130-190	150-300	140-500
Rating Voltage (VAC)	230	230	230	230
Switching Cap. (cos φ = 1) (A)	16 / 25	16 / 25	16 / 25	16 / 25
Switching Diff. (%) of full scale value approx	-	-	-	-
Max. Sensor Temperature (°C)	225	215	325	525
Protection Class	IP66	IP66	IP66	IP66
Capillary Tube Length (mm)	1000	1000	1000	1000
Capillary Diameter (mm)	4	4	4	4
Dimensions LxWxH (in mm)	122x120x90	122x120x90	122x120x90	122x120x90
Cable Glands M20/M25	1/1	1/1	1/1	1/1
Clamping Zone M20/M25 (mm)	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17
Cross Section (mm²)	4/6	4/6	4/6	4/6
Weight (kg)	1.2	1.2	1.2	1.2

Wiring Diagram



IRB2M…Ex

Combination of capillary temperature controller and limiter for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 4/6mm²
- 4/6mm 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 glass fiber enhanced 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: -55°C

Switching Capacity:	16A/230V 25A/230V (16A/400V upon request)
Material:	Glass Fiber Reinforced Polyester
Protection Class:	IP66
Temperature Class:	T6 at +40°C (25A) T4 at +55°C (25A) T6 at +50°C (16A) T4 at +80°C (16A)

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

ATEX, IECEx, EAC

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

IRB2M-0205/0719Ex:	Controller: Limiter:	-20..50°C 70..190°C
IRB2M0012/1319Ex:	Controller: Limiter:	0..120°C 130..190°C
IRB2M0019/1319Ex:	Controller: Limiter:	0..190°C 130..190°C
IRB2M0012/0719Ex:	Controller: Limiter:	0..120°C 70..190°C
IRB2M0019/0719Ex:	Controller: Limiter:	0..190°C 70..190°C
IRB2M0630/1530Ex:	Controller: Limiter:	60..300°C 150..300°C

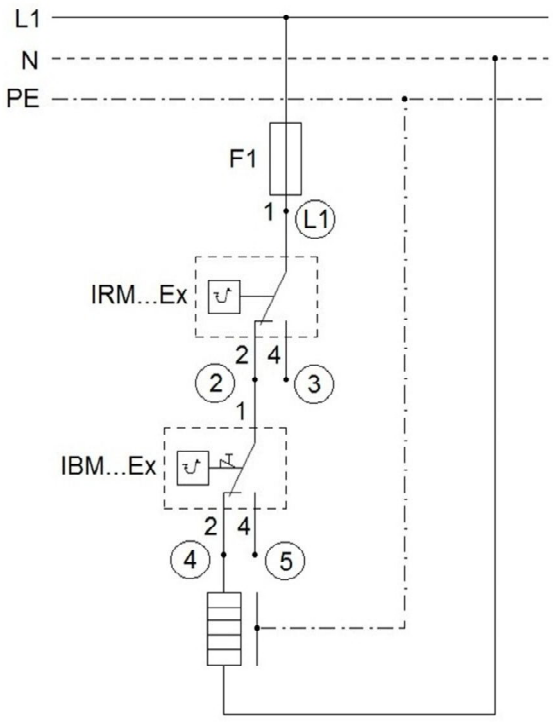
Further temperature ranges available upon request.

Standard Versions

Additional Technical Data

Temperature Range (°C)	-20..50/70..190	0..120/130..190	0..190/130..190	0..120/70..190	0..190/70..190	60..300/150..300
Rating Voltage (VAC)	230	230	230	230	230	230
Switching Cap. (cos φ = 1) (A)	16 / 25	16 / 25	16 / 25	16 / 25	16 / 25	16 / 25
Switching difference (%) of Full Scale Value approx	7/-	7/-	7/-	7/-	7/-	7/-
Max. Sensor Temperature (°C)	80/220	145/220	220/220	145/220	220/220	345/345
Protection Class	IP66	IP66	IP66	IP66	IP66	IP66
Capillaary Tube Length (mm)	1000/1000	1000/1000	1000/1000	1000/1000	1000/1000	1000/1000
Capillary Diameter (mm)	6/4	4/4	4/4	4/4	4/4	6/6
Dimensions LxWxH (in mm)	220x120x90	220x120x90	220x120x90	220x120x90	220x120x90	220x120x90
Cable Glands M20/M25	2/1	2/1	2/1	2/1	2/1	2/1
Clamping Zone M20/M25 (mm)	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17	7-13/12-17
Cross Section (mm²)	4/6	4/6	4/6	4/6	4/6	4/6
Weight (kg)	2	2	2	2	2	2

Wiring Diagram



IR2M…Ex/g

Mechanical capillary temperature controller for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 4/6mm²²
- 4/6mm sensor diameter
- Resistant against chemical influences

Description

The Ex-Temperature Controller devices of the IR2M-Series are mechanical 2-point capillary temperature controller.

The black glass fiber enhanced polyester enclosure is very rugged and is used as a connector for single core heating cables as well as self-limiting heating cables.
This controller can handle a switching capacity of 25A directly.

When exceeding the adjusted temperature, the controller switches off.

Technical Data

Min. Ambient Temp.:	-55°C
Switching Capacity:	25A/230V
Material:	Glass Fiber Reinforced Polyester
Protection Class:	IP66
Temperature Class:	T6 at +40°C (25A) T4 at +55°C (25A)

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

ATEX, IECEx, EAC

Ordering Information

Part number:

IR2M-0205Ex/g	Temperature range: -20°C..+50°C
IR2M0012Ex/g	Temperature range: 0°C..+120°C
IR2M0019Ex/g	Temperature range: 0°C..+190°C
IR2M0630Ex/g	Temperature range: +60°C..+300°C
IR2M1450Ex/g	Temperature range: +140°C..+500°C

Further temperature ranges upon request.

Further Information

Please consult the installation instructions!

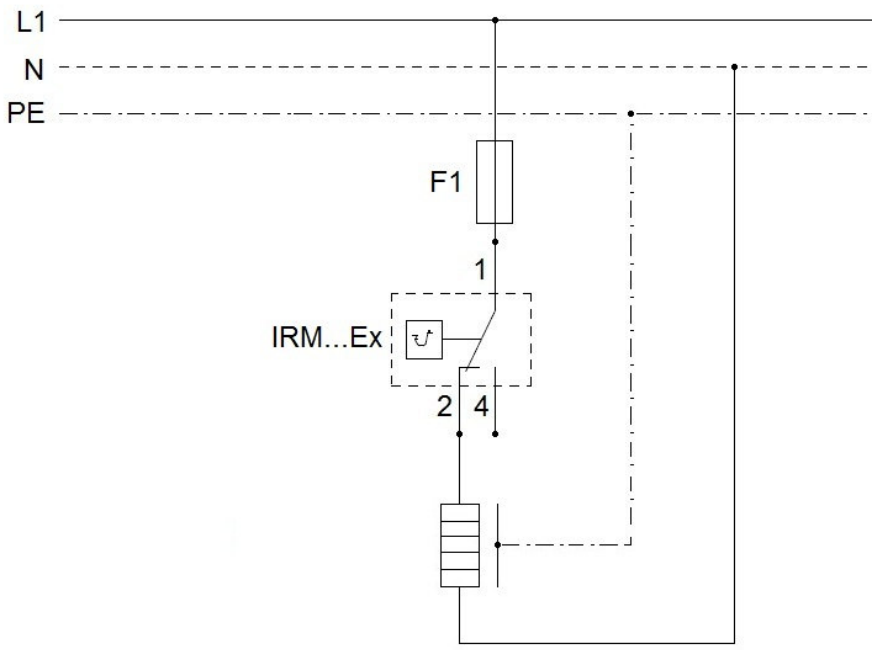
IR2M…Ex/g

Standard Versions

Additional Technical Data

Temperature Range (°C)	**-20…50**	**0…120**	**0…190**	**60…300**	**140…500**
Rating Voltage (VAC)	230	230	230	230	230
Switching Capacity (cos φ = 1) (A)	25	25	25	25	25
Switching Difference (%) of Full Scale Value approx	7	7	7	7	7
Max. Sensor Temperature(°C)	80	145	220	345	530
Protection Class	IP66	IP66	IP66	IP66	IP66
Capillary Tube Length (mm)	1000	1000	1000	1000	1000
Capillary Diameter (mm)	6	4	4	6	6
Dimensions (LxWxH in mm)	160x160x90	160x160x90	160x160x90	160x160x90	160x160x90
Cable Glands M20/M32	1/1	1/1	1/1	1/1	1/1
Clamping Zone M20/M32 (mm)	7-13/16-21	7-13/16-21	7-13/16-21	7-13/16-21	7-13/16-21
Cross Section (mm²)	10	10	10	10	10
Weight (kg)	1.9	1.9	1.9	1.9	1.9

Wiring Diagram



IB2M…Ex/g

Mechanical fail-save protection temperature limiter for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 10mm²
- Sensor diameter 4/6mm
- Resistant to chemicals

Description

The Ex-fail-save protection temperature limiter devices of the IB2M-series are mechanical 2-point capillary temperature protection limiter.

The black glass fiber reinforced polyester enclosure is very rugged and serves as a connector for single core heating cables. The limiter can handle a switching capacity of 25A directly.

When exceeding the set temperature, the limiter switches off. The restart lockout gives additional safety, a manual reset is needed.

Technical Data

Min. Ambient Temperature:	-55°C
Switching Capacity:	25A/230V
Material:	Glass Fiber Reinforced Polyester
Protection Class:	IP66
Temperature Class:	T6 at +50°C (25A) T4 at +55°C (25A)

Ordering Information

Part number:

IB2M0719Ex/g	Teperature Range: +70°C..+190°C
IB2M1319Ex/g	Temperature Range: +130°C..+190°C
IB2M01530Ex/g	Temperatue Range: +150°C..+300°C
IB2M1450Ex/g	Temperature Range: +140°C..+500°C

Further temperature ranges upon request.

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

ATEX, IECEx, EAC

Further Information

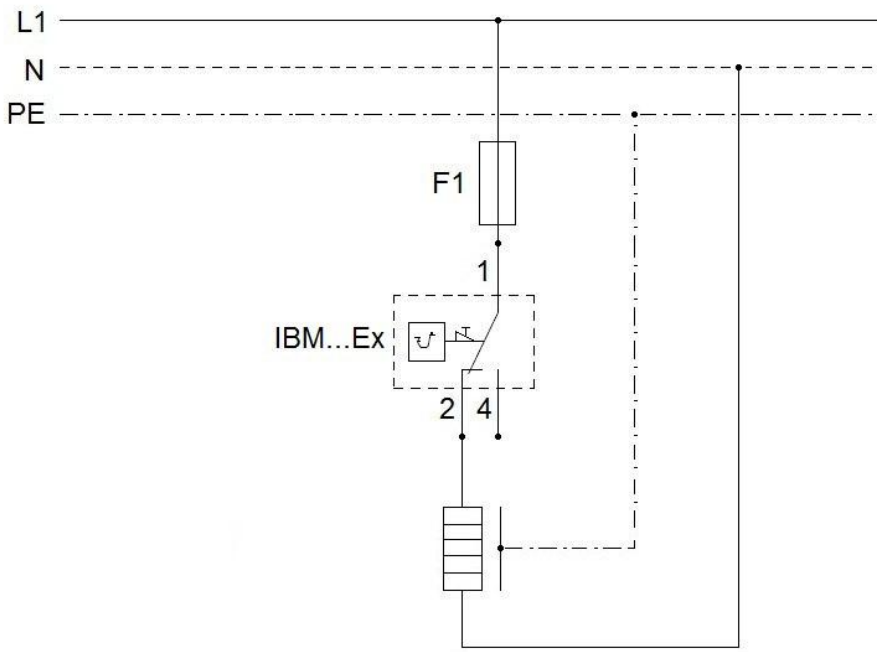
Please consult the installation instructions!

Standard Versions

Technical Data

Temperature Range (°C)	70-190	130-190	150-300	140-500
Rating Voltage (VAC)	230	230	230	230
Switching Cap. (cos φ = 1) (A)	25	25	25	25
Switching Diff. (%) of full scale value approx	-	-	-	-
Max. Sensor Temperature (°C)	220	220	345	530
Protection Class	IP66	IP66	IP66	IP66
Capillary Tube Length (mm)	1000	1000	1000	1000
Capillary Diameter (mm)	4	4	6	6
Dimensions LxWxH (in mm)	160x160x90	160x160x90	160x160x90	160x160x90
Cable Glands M20/M32	1/1	1/1	1/1	1/1
Clamping Zone M20/M32 (mm)	7-13/16-21	7-13/16-21	7-13/16-21	7-13/16-21
Cross Section (mm²)	10	10	10	10
Weight (kg)	1.9	1.9	1.9	1.9

Wiring Diagram



IRB2M…Ex/g

Combination of capillary temperature controller and limiter for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V switching capacity
- Cross section 4/6mm²
- 4/6mm 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 glass fiber enhanced 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:	-55°C
Switching Capacity:	25A/230V
Temperature Class:	T6 at +40°C T4 at +55°C

Marking

II 2G Ex db eb IIC T6…T4 Gb
II 2D Ex tb IIIC T85°C… T135°C Db IP66

Approval

ATEX, IECEx, EAC

Further Information

Please consult the installation instructions!

Ordering Information

Part number:

IRB2M-0205/0719Ex/g	Controller: Limiter:	-20..50°C 70..190°C
IRB2M0012/0719Ex/g	Controller: Limiter:	0..120°C 130..190°C
IRB2M0012/1319Ex/g	Controller: Limiter:	0..190°C 130..190°C
IRB2M0019/0719Ex/g	Controller: Limiter:	0..120°C 70..190°C
IRB2M0019/1319Ex:	Controller: Limiter:	0..190°C 70..190°C
IRB2M0630/0630Ex:	Controller: Limiter:	60..300°C 150..300°C

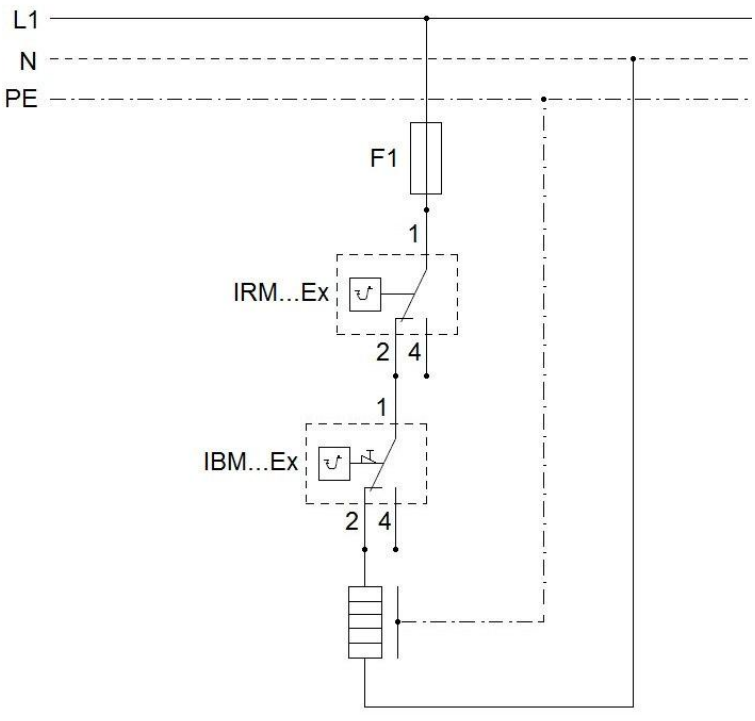
Further temperature ranges available upon request.

Standard Versions

Additional Technical Data

Temperature Range (°C)	-20..50/70..190	0..120/130..190	0..190/130..190	0..120/70..190	0..190/70..190	60..300/150..300
Rating Voltage (VAC)	230	230	230	230	230	230
Switching Cap. (cos φ = 1) (A)	25	25	25	25	25	25
Switching difference (%) of Full Scale Value approx	7/-	7/-	7/-	7/-	7/-	7/-
Max. Sensor Temperature (°C)	80/220	145/220	145/220	220/220	220/220	345/345
Protection Class	IP66	IP66	IP66	IP66	IP66	IP66
Capillaary Tube Length (mm)	1000/1000	1000/1000	1000/1000	1000/1000	1000/1000	1000/1000
Capillary Diameter (mm)	6/4	4/4	4/4	4/4	4/4	6/6
Dimensions LxWxH (in mm)	260x160x90	260x160x90	260x160x90	260x160x90	260x160x90	260x160x90
Cable Glands M20/M32	2/1	2/1	2/1	2/1	2/1	2/1
Clamping Zone M20/M32 (mm)	7-12/16-21	7-12/16-21	7-12/16-21	7-12/16-21	7-12/16-21	7-12/16-21
Cross Section (mm²)	10	10	10	10	10	10
Weight (kg)	2.9	2.9	2.9	2.9	2.9	2.9

Wiring Diagram



IR2M..VAEx

Fail-safe capillary temperature controller in stainless steel enclosure (1.4404 / 316L) for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V AC switching capacity
- Robust and rugged design
- 4/6mm sensor diameter
- Highly resistant to aggressive chemicals
- Huge temperature range: -20…+500°C

Description

The IRM..VAEx series of fail-safe capillary temperature devices consist of capillary type temperature thermostats with mechanical change-over contacts in a robust and rugged stainless steel enclosure.
This robust enclosure is used in applications for controlling and connecting self-limiting heating tapes and heating cables in hazardous areas.

These stainless steel enclosures are approved to ATEX/IECEx and NEMA 4X and have proven themselves extremely well under harsh conditions and for food & hygienic areas.

Aggressive chemicals or severe mechanical impacts cannot harm or even damage these rugged & robust enclosures.

Technical Data

Permitted Ambient Temperatures:	-55°C ... +50°C in T6
Material:	Stainless steel 1.4404 / 316L
Protection Class:	IP66
Dimensions (LxWxH in mm):	200 x 200 x 120

Marking

II 2G Ex ed IIC T6
II 2D Ex tb IIIC T80°C IP65

Approval

ATEX, IECEx, EAC

Further Information

Operation instruction must be consulted before use.

Ordering Information

IR2M .... VAEx

- Fail-safe temperature controller
- Code temperature range (see code below)
- Stainless steel and Ex version

Available Temperature Ranges

Controller (safety temperature monitor):

Code: -205	=	-20…+50°C
Code: 0012	=	0…+120°C
Code: 0019	=	0…+190°C
Code: 0630	=	+60…+300°C
Code: 1450	=	+140…+500°C

Example

IR2M0630VAEx
(controller with temperature range: +60…+300°C)

Other temperature ranges available upon special request.

Additional Technical Data

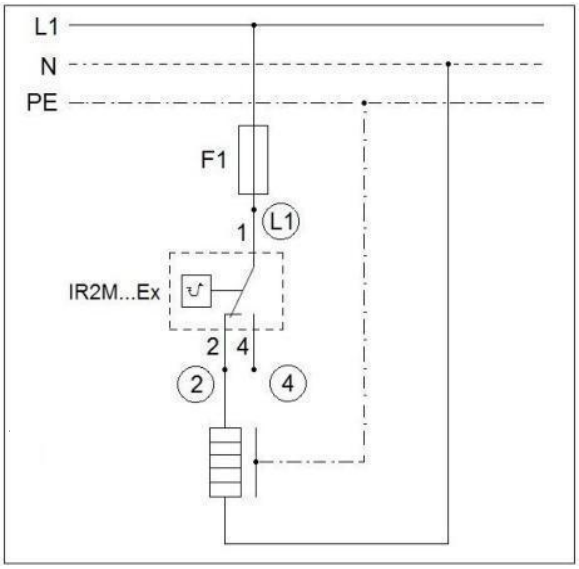
Rated Voltage:	230V AC (400V upon request)
Rated Current (cos φ = 1):	25A

Switching Point Deviation:

Temp. Range in °C	Deviation approx (% of full scale)	Sensor Diameter (mm)
-20…+50°C	+7/-0	6
0…+120°C	+7/-0	4
0…+190°C	+7/-0	4
+60…+300°C	+7/-0	6
+140…+500°C	+7/-0	6

Max. Permitted Sensor Temperature:	+15% of full scale or max. +25K
Capillary Length:	1,000mm (3,000mm upon request)
Bulb Diameter:	4mm
Cable Glands:	1x M25 Ni-plated brass 1x M20 Ni-plated brass
Terminal Cross Section (Cage Clamp Type):	0.5 – 6mm² (solid or stranded cable)
Weight:	ca. 3.5kg

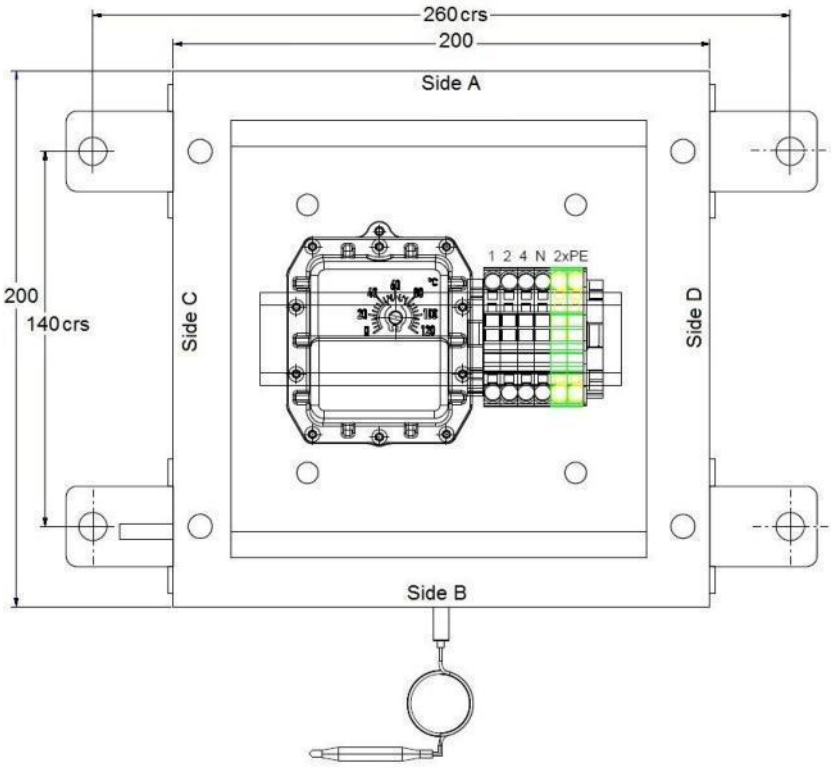
Typical Schematic



L1 2 4 = Terminal idents

F1: MCB (by others)

Internal Layout



IB2M..VAEx

Fail-safe capillary temperature limiter in stainless steel enclosure (1.4404 / 316L) for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25A/230V AC switching capacity
- Robust & rugged design
- 4/6mm sensor diameter
- Highly resistant to aggressive chemicals
- Wide temperature range of 0…+500°C

Description

The IB2M..VAEx series of fail-safe capillary thermostat consist of capillary type temperature limiter with mechanical change-over contacts in a robust and rugged stainless steel enclosure.

This robust enclosure is used in applications for controlling and connecting constant wattage heating tapes and heating cables in hazardous areas.

These stainless steel enclosures are approved according to ATEX, IECEx and NEMA4X and have proven themselves extremely well under harsh conditions and for food & hygienic areas.

Aggressive chemicals or severe mechanical impacts cannot harm or even damage these rugged & robust enclosures.

Technical Data

Permitted Ambient Temp.:	-55°C … +50°C in T6
Material:	Stainless steel 1.4404 / 316L
Protection Class:	IP66
Dimensions (LxWxH in mm):	200 x 200 x 120

Marking

II 2G Ex ed IIC T6
II 2D Ex tb IIIC T80°C IP65

Certificates

ATEX, IECEx, EAC

Further Information

Please consult the installation instructions

Ordering Information

IB2M …. VAEx

- Fail-safe temperature limiter
- Code temperature range (see code below)
- Stainless steel and Ex version

Available Temperature Ranges

Limiter (Safety temperature limiter):
Code: 1319 = +130…+190°C
Code: 0719 = +70…+190°C
Code: 0630 = +60…+300°C
Code: 1450 = +140…+500°C

Example

IB2M0630VAEx
(Limiter with temperature range: +60…+300°C)

Other temperature ranges available upon special request.

Quintex GmbH – i_Park Tauberfranken 13 – 97922 Lauda-Königshofen – Germany
Tel: +49 9343 6130 -0 – Fax: +49 9343 6130-105 – E-Mail: info@quintex.info – www.quintex.eu

IB2M..VAEx

Additional Technical Data

Rated Voltage: 230V AC
(400V upon request)

Rated current (cos φ = 1): 25A

Switching point devation:

Temperature Range in °C	Deviation approx (% of full scale)	Sensor Diameter (mm)
+130…+190°C	+0/-7	4
+70…+190°C	+0/-7	4
+60…+300°C	+0/-7	6
+140…+500°C	+0/-7	6

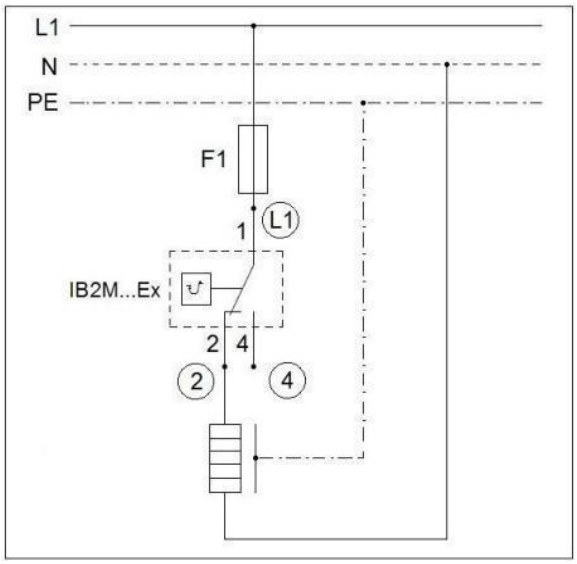
Max. permitted sensor temp.: +15% of full scale
or max. +25K

Capillary length: 1,000mm
(3,000mm upon request)

Bulb diameter: 4mm
Cable glands: 1x M25 Ni-plated brass
1x M20 Ni-plated brass

Terminal cross section: 0.5 – 6mm²
(Cage clamp type) (solid or stranded cable)
Weight: ca. 3.5kg

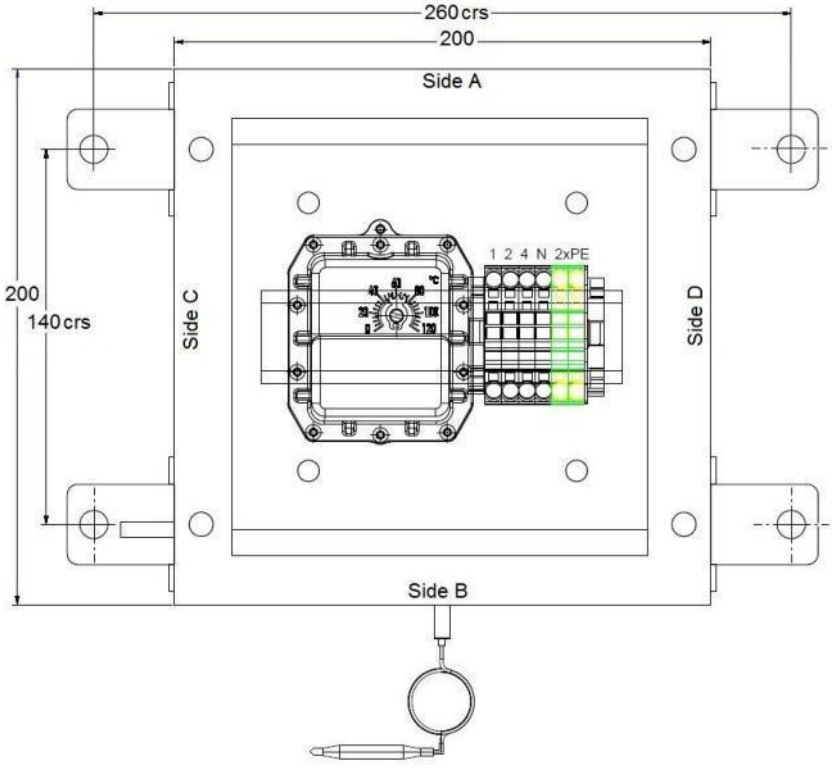
Typical Schematic



L1 2 4 = Terminal idents

F1 = MCB (by others)

Internal Layout



IRB2M…VAEx

Fail-safe capillary temperature controller-limiter combination in stainless steel (1.4404 / 316L) for use in hazardous area.

Mechanical Controller Ex

- Compact design
- 25/230V AC switching capacity
- Robust & rugged design
- 4/6mm sensor diameter
- Highly resistant to aggressive chemicals
- Huge temperature range -20…+500°C

Description

The IRB2M..VAEx series of fail-safe temperature devices consist of capillary type thermostats with mechanical change-over contacts in stainless steel enclosures. These are commonly used in applications for controlling and connecting single-core heating cables in hazardous areas.
The combination of limiter & thermostat allows simple and space-saving connections for electrical trace heating circuits. These stainless steel enclosures are approved to ATEX/ IECEx and NEMA 4X and have proven themselves extremely well under harsh environmental conditions and for food & hygiene areas.

These rugged & robust enclosures stand up well to aggressive chemicals and severe mechanical impacts.

Technical Data

Permitted Ambient Temperatures:	-55°C … +50°C in T6
Material:	Stainless Steel 1.4404 / 316L
Protection Class:	IP66
Dimensions (LxWxH in mm):	300 x 200 x 120

Marking

- II 2G Ex ed IIC T6
- II 2D Ex tb IIIC T80°C IP65

Approval

ATEX, IECEx, EAC

Further Information

Please consult the installation instructions.

Ordering Information

IRB2M .... / .... VAEx

- Fail-safe controller-limiter combination
- Temp. Range controller (see code below)
- Temp. Range limiter (see code below)
- Stainless steel and Ex version

Available Temperature Ranges

Controller and limiter:

Code: -205	=	-20…+50°C (controller only)
Code: 0012	=	0…+120°C (controller only)
Code: 1319	=	+130…+190°C (limiter only)
Code: 0019	=	0…+190°C (controller only)
Code: 0719	=	+70…+190°C (limiter only)
Code: 0630	=	+60…+300°C
Code: 1450	=	+140…+500°C

Ordering Example

IRB2M-205/0719VAEx
(controller: -20…+50°C, limiter: +70…+190°C)

Further temperature ranges available upon request.

IRB2M…VAEx

Additional Technical Data

Rated Voltage: 230V AC
(400V upon request)

Rated Current (cos φ = 1): 25A

Switching Point Deviation:

Temperature Range in °C	Controller approx (% of full scale)	Limiter approx (% of full scale)
-20…+50°C	+7/-0	-/-
0…+120°C	+7/-0	-/-
+130…190°C	-/-	+0/-7
0…+190°C	+7/-0	-/-
+70…+190°C	-/-	+0/-7
+60…+300°C	+7/-0	+0/-7
+140…+500°C	+7/-0	+0/-7

Max. Permitted Sensor Temperature: +15% of full scale or +25K max

Capillary Length: 1,000mm
(3,000mm upon request)

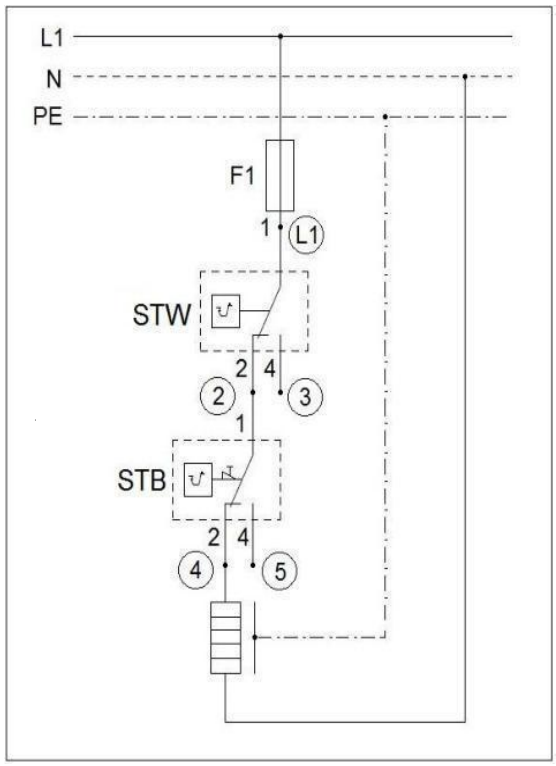
Sensordurchmesser: 4mm/ 6mm

Cable Glands: 1x M25 Ni-plated brass
2x M20 blind plug

Terminal Cross Section: 0.5 - 6mm²
(single- or fine-wired)

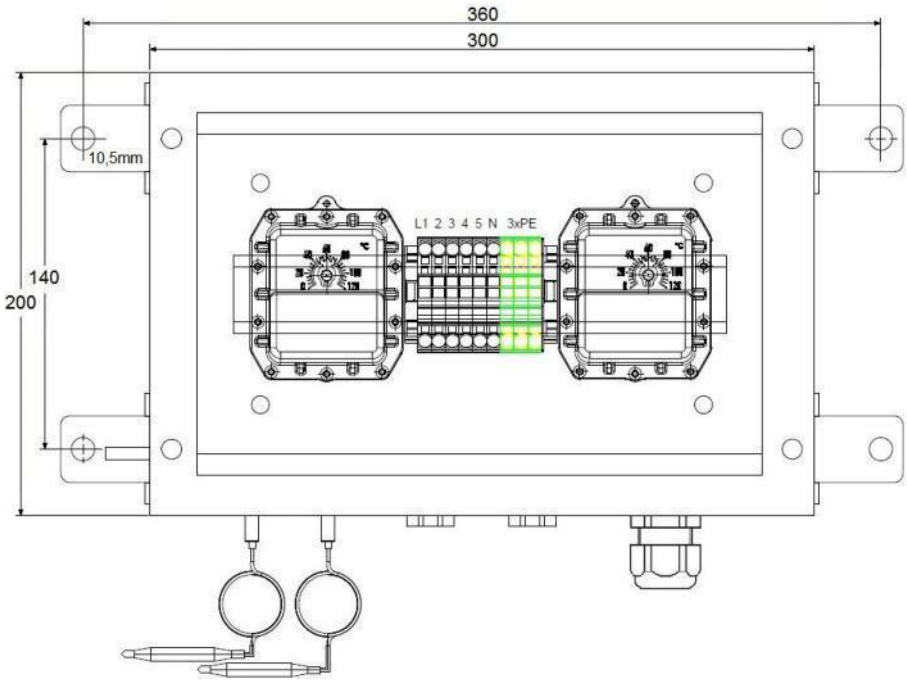
Weight: ca. 6.0kg

Typical Schematic



L1 2 3 4 5 = Terminal idents
F1 = MCB (by others)

Internal Layout



IRM…Exd

Ex d mechanical temperature controller for use in hazardous area.

Mechanical Controller Ex d

- Robust design, IP66
- 25A/250V switching capacity
- 4mm² spring clamp terminals
- 5.8mm diameter stainless steel bulb
- 1.6m long capillary tube

Description

The IRM Ex d-Series temperature controllers are mechanical 2-point capillary tube line-sensing thermostats.

The epoxy painted die-cast aluminium enclosure is very robust for harsh environments and can be used for direct connection of heating circuits with approved cable glands.

This temperature controller can be used for direct switching by the n/c contact up to 25A. The temperature set point is fully adjustable; the n/c contact opening on temperature rise.

Standard colour is cream-white RAL 9010 but other colour finishes are available upon request.

Technical Data

Min. Ambient Temperature: (-55°C upon request)	-40°C
Switching Capacity: (16A/ 400V AC upon request)	25A/250V AC
Temperature Class:	T6 at +55°C
Protection Class:	IP66

Ordering Information

Part number:

IRM040Exd:	Temperature range: 0…+40°C
IRM0200Exd:	Temperature range: 0…+200°C
IRM50320Exd:	Temperature range: +50…+320°C

Marking

II 2G Ex db IIB T6 Gb
II 2D Ex tb IIIB T120°C Db IP66

Approval

ATEX, EAC

Further Information

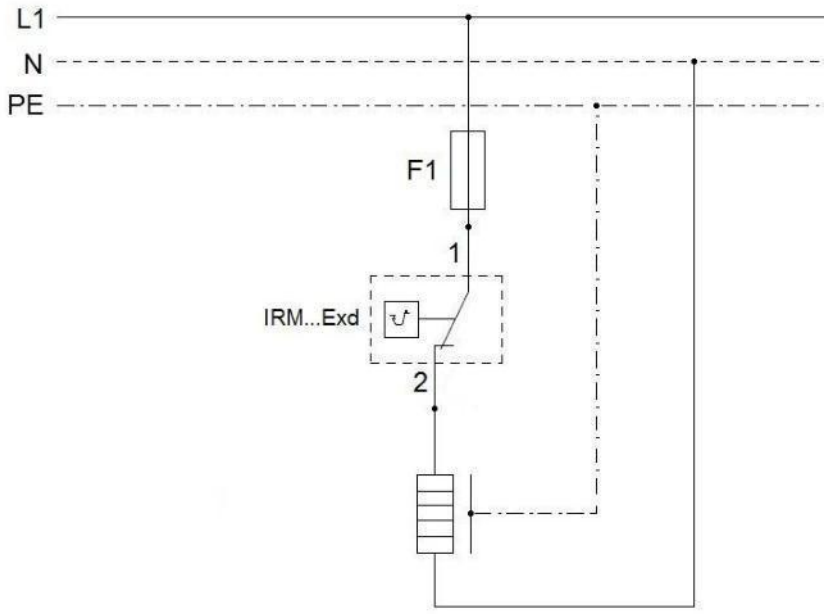
Please consult the installation instructions!

Standard Versions

Technical Data

IRM…Exd	040	0200	50320
Voltage Rating (V AC)	250	250	250
Switching cap.: (cos φ = 1) (A)	25	25	25
Switching Difference (K)	Ca.3	Ca.5	Ca.7
Max. Sensor Temperature (°C)	45	230	350
Protection Class	IP66	IP66	IP66
Capillary Tube Length (in mm)	1600	1600	1600
Sensor Bulb Dimensions (in mm)	126 x 5.8ø	179 x 3.0ø	179 x 3.0ø
Enclosure Dimensions overall (LxWxH in mm) (110mm ø)	145x126x108	145x126x108	145x126x108
Fixing crs (in mm)	7.0ø x 126	7.0ø x 126	7.0ø x 126
Blind Plugs M20	2	2	2
Spring Clamp Terminal (in mm²)	4	4	4
Approximate Weight (in kg)	1.3	1.3	1.3

Typical Wiring Diagram



IRE IoT Ex-__

Ex d electronic temperature controller for use in hazardous area.

Electronic IoT Controller Ex d

- Robust design, IP65
- 20A/240V switching capacity
- Wi-Fi, Bluetooth
- Free Android App for setup!

Description

The Quintex Ex approved IoT temperature controller is available with modern communication as Wi-Fi and Bluetooth. Protection by a password. No cloud data transfer, only usable within your protected Wi-Fi network.
As a sensor a Ex e approved PT100 can be used in 2-, 3- or 4- wire connection. Configuration can be done directly at the controller by buttons (outside Ex area) with a smartphone (inside Ex area on an approved one) as well as via internet browser.
Typical applications are trace heating projects for process temperature and/or freeze protection, unmanned plants and IoT- applications within a facility.
Standard colour is signal yellow RAL 1003.

Possible application

- Petro chemistry / Refinery / Offshore
- Wastewater industry / Sewage treatment
- Shipbuilding / Tanker
- Tank farm / Filling station
- Ex-manufacturing plant

Technical Data

Ambient Temperature:	-40°C...+55°C
Operation voltage:	100V...240V
Switching Capacity:	20A/240V AC NO
Hysteresis:	0.1… 5.0 K
Temperature Class:	T6: -40°C ≤ Ta ≤ +40°C T5: -40°C ≤ Ta ≤ +55°C
Protection Class:	IP65
Communication:	Bluetooth®, Wi-Fi
Sensor:	Ex e Pt100
Clamping range Glands:	4...12mm (M25)
Clamping range Spring-cage terminals:	2.5mm²

Marking

II 2G Ex db IIB T6/T5 Gb
II 2D Ex tb IIIB T120°C Db IP65

Approval

ATEX

Further Information

Free Android App for setup!

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IRE168DS

Electronic temperature controller for use in non-hazardous area.

Electronic Controller non-Ex

- Compact design
- Multi-Voltage-Input
- 2-line display (Set- and Actual-Value)
- 4-20mA Output (Process-Value)
- Compatible with several temperature sensor types

Description

The IRE168DS is engaged on a DIN-Rail TS 35.
The Dimension of 69 x 85 x 62 mm allows an ideal utilization of the cabinet.

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

Furthermore the two-line display allows to see the set- and actual value simultaneously.

Technical Data

Rating:	100-240V~ ± 10%
Switching-Capacity:	1 change-over contact16A 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
Dimensions (LxWxH in mm):	70 x 85 x 61
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 line-sensing capillary temperature controller (see datasheet)

Further Products

Part number:
IRPT100: PT100 temperature sensor 3-wire

IRE168 AG

Electronic temperature controller for use in non-hazardous area, pre-assembled in enclosure.

Electronic Controller non-Ex

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

Description

The Controller is installed in a glass fiber 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 sensor types can be used. The Controller supports all adjustment features that are required for electrical heat-tracing with easy operation.

Furthermore the two-line display allows to see the set- and actual value simultaneously.

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:	3xM20, 1xM12
Operating-/ Storage-Temperature:	-5..+55°C -20..+85°C
Temperature Range:	-200…+800°C
Dimensions (LxWxH in mm):	220 x 120 x 90
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 breakers, fuses, load-conductor and controller IRE168DS; completely pre-wired.

IRE168DS Exi

Electronic Temperature Controller for use with PT100 temperature sensors.

Exi Electronic Controller

- Compact Design
- Multi-Voltage Input
- 2-line Display (Set- and Process Values)
- 16A & 8A Volt-free Output Contacts
- Password Protected

Description

The IRE168DS Exi is an electronic device, part of a trace heating system, mounted in a safe area. Any Pt100 temperature sensor can be installed in a hazardous area and becomes a component of the intrinsically safe circuit when connected to this electronic controller.

Its design allows it to be either rail mounted on a standard TS35 DIN-rail or panel mounted through a 70 x 45 mm cut-out.

Technical Data

Rating:	100-240V
Switching Capacity:	1 x 16A c/o contact 1 x 8A n/o contact
Switching Accuracy:	0,5% of Scale Range +1 Digit at 25°C
Operating- / Storage-temperature:	-5°C to +55°C -20°C to +85°C
Temperature Range:	-200°C to +800°C
Power Consumption:	max. 4W
Sensor Loop:	U_O = 3.72V I_O = 0.433A P_O = 1.057W
Max. ext. capacity:	C_O = 8.8µF
Max. ext. inductance:	L_O = 95µH
Dimensions (LxWxH):	71 x 86 x 62mm
Panel Cut-Out:	70 x 45mm
Weight:	185 g

Marking

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

Certificates

ATEX

Ordering Information

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

Further Products

Part-Number:
IRPT100: 3-wire 2.5m PT100 Sensor

Terminal Connections

Terminal	Description
10/11/12	Sensor Connection
13/14/15	16A SPDT c/o Contacts
18/19	Power Supply 100-240V
23/24	8A SPST n/o Contacts

Further Information

Operating instructions must be observed.

CRE IoT-__

Elektronischer Temperaturregler für den Einsatz im nicht-explosionsgefährdeten Bereich.

Elektronische Regelgeräte

- Robustes Design
- 20A/240V Schaltleistung
- Wi-Fi, Bluetooth
- Kostenlose Android App zur Einrichtung

Beschreibung

Der Quintex IoT-Temperaturregler ist mit modernster Kommunikation via Wi-Fi und Bluetooth erhältlich.
Keine Cloud-Datenübertragung, nur innerhalb Ihres geschützten Wi-Fi-Netzwerks nutzbar.
Passwortgeschützt.
Als Sensor kann ein DS18B20 sowie PT100 in 2-, 3- oder 4- Leiter-Ausführung verwendet werden. Die Konfiguration kann direkt am Controller über Tasten, mit einem Smartphone sowie im Internet via Browser vorgenommen werden.
Fehlerbenachrichtigungen können als Push-Email eingerichtet werden.
Typische Anwendungen sind:
Begleitheizungsprojekte für Prozesstemperatur und/oder Frostschutz, unbemannte Anlagen und IoT-Anwendungen innerhalb einer Einrichtung.

Mögliche Anwendungen

- Industrie- bzw. Haustechnik
- Frostschutz
- Teichheizung

Technische Daten

Min. Umgebungstemperatur:	-40°C…55°C
Betriebsspannung:	100V…240V
Schaltleistung:	20A/240V AC NO
Hysterese:	0,1... 5,0 K
Messbereich (D18B20):	-50…125°C
Messbereich (PT100):	-50…350°C
Schutzklasse:	IP66
Kommunikation:	Bluetooth®, Wi-Fi
Sensor:	DS18B20; Pt100
Klemmbereich Verschraubungen:	6…13mm
Klemmbereich Zugfederklemmen:	2,5mm²

Weitere Informationen

Kostenlose Android App zur Einrichtung!

IRPT100

PT100 temperature sensor for use in non-hazardous area.

Temperature Sensor non-Ex

- Compact design
- Very flexible due to silicone cable
- Up to 180°C
- 3-wire design
- According to latest standards

Description

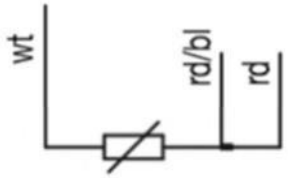
The IRPT100 is a PT100 temperature sensor with a very flexible silicone cable.

Due to the short sensor and the flexible cable the IRPT100 can be fitted easily to almost any measuring point.

The wide temperature range of -50°C…+180°C allows a wide range of applications.

Technical Data

Rating Voltage:	max. 60V
Measurement Range:	-50…+180°C
Signal Circuit:	max. 1mA AC/DC
Sensor Diameter:	6mm
Sensor Length:	50mm
Supply Cable Length:	
IRPT100:	2,500mm
IRPT100 10M0:	10,000mm
Measurement System:	3-wire



Ordering Information

Part number:	
IRPT100:	2,500mm cable length
IRPT100 10M0:	10,000mm cable length

Alternative Products

Part number:	
IRPT100Ex/CF:	PT100 temperature sensor For hazardous area with PTFE feeding cable.

Additional Products

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

IR2PT100Ex3CF

PT100 temperature sensor for use in hazardous area.

Temperature Sensor Ex

- Compact design
- High resistance to chemicals
- Antistatic
- Resistant to corrosion/ UV resistant
- Individualized versions available

Description

The IR2PT100Ex3CF temperature sensor is very flexible in use thanks to its PFA insulated connection cable.

Because of the short 50mm sensor bulb the IR2PT100Ex3CF can be easily attached to almost any measurement point.

The large measurement range of
-50 °C ... + 220 °C also enables a broad range of applications.

Technical Data

Rated Voltage:	max. 60V
Rated Current:	max. 5mA
Measurement Range:	-50°C…+220°C
Sensor Diameter/ Length:	6mm/50mm
Cable Outer Sheet Material:	PFA
Wire Cross Section (Nickel-Plated Copper):	0.22mm²
Cable Length:	2.0 / 5.0 / 10.0m
Measurement System:	3-wire (2- and 4-wire upon request)

Marking

II 2G Ex e IIC T6…T1 Gb
II 2D Ex tb IIIC T85°C…T220°C Db IP68

Approval

ATEX, EAC

Ordering Information

Part number:
IR2PT100Ex3CF 2M0: with 2m PFA cable
IR2PT100Ex3CF 5M0: with 5m PFA cable
IR2PT100Ex3CF 10M0: with 10m PFA cable

Alternative Products

Part number:
IRPT100: PT100 temperature sensor for use in non-hazardous area

Further Products

Part number:
AG 99 Ex: Ex-junction box for 1-2 temperature sensors
IRE168DS: Electrical control unit 16A+8A Relay, 4-20mA output (for non-hazardous area)

Further Information

Operating instructions must be observed!

IRPT100Ex3

PT100 temperature sensor for use in hazardous area.

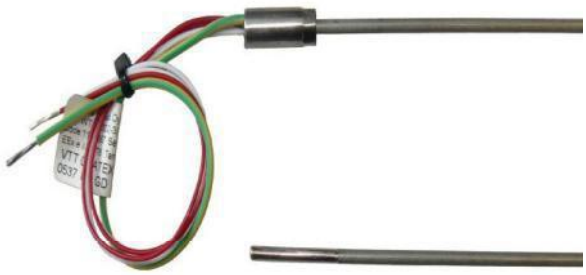
Temperature Sensor Ex

- Compact design
- Very flexible due to 3mm outer diameter
- Up to 550°C
- 4-wire design
- According to latest standards

Description

Because of the small outer diameter of 3mm, the IRPT100Ex3 temperature sensor is very flexible to use.
The IRPT100Ex3 is a 3mm thick, 1.000 mm long sheathed cables, which is filled with magnesium oxide.
The flexible part starts immediately after the 25mm long sensor head and thus provides maximum flexibility.

The wide temperature range of -50…+550°C allows a wide range of applications.



Technical Data

Rated Voltage:	max. 60V
Measurement Range:	-50…+550°C
Max. Temperature:	
Sensor Head:	+550°C
Terminals:	+125°C
Signal Circuit:	max. 10mA AC/DC
Sensor Diameter:	3mm
Sensor Head Length:	25mm
Flexible Part Length:	975mm
Measurement System:	4-Leiter

Approval

ATEX, EAC

Marking

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

Ordering Information

Part number: IRPT100Ex3

Additional Products

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

Further Information

Please consult the installation instructions!

IRDS18B20

Digital temperature sensor for use in non-hazardous area.

Temperature Sensor non-Ex

- Compact design
- Flexible due to 3m connection cable
- Measurement Range up to 125°C
- 1-wire Interface
- Suitable for outdoor use

Description

The IRDS18B20 is a digital temperature sensor with a large measuring range and a low deviation.

Thanks to the unique 1-wire interface, the sensor requires only one port pin to communicate with a microcontroller.

The three meter cable length gives a lot of flexibility when attaching the sensor. Due to a waterproof cable also suitable for outdoor use.

Technical Data

Power Supply:	3,0V up to 5,5V
Measurement Range:	-55…+125°C
Accuracy:	+/- 0.5 (-10°C to +85°C)
Resistance:	4.7kΩ
Sensor Diameter:	6mm
Sensor Length:	30mm
Supply Cable Length:	3000mm
Output cable:	red (VCC) yellow (DATA) black (GND)

Ordering Information

Part number: IRDS18B20:	3000mm cable length

Alternative Products

Part number: IRPT100:	PT100 temperature sensor 3-wire design

Additional Products

Part number: CRE IOT-DS:	Electronic IOT controller for DS18B20 use
AG 99:	Enclosure for temperature sensors

Adhesive Tapes

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

Aluminium tape

Part number: ALK150
- Length: 50m
- Width: 50mm
- Temp. resistant: up to 150°C
- Thickness: 300µm

Part number: ALK1 150m
- Length: 100m
- Width: 75mm
- Temp. resistant: up to 150°C
- Thickness: 300µm

Polyester tape

Part number: PEK100
- Length: 50m
- Width: 19mm
- Temp. resistant: up to 100°C
- Thickness: 160µm

Cloth adhesive tape

Part number: GEK130
- Length: 50m
- Width: 12mm
- Temp. resistant: up to 130°C
- Thickness: 120µm

Glass fiber tape

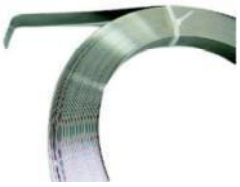
Part number: GSK180 / GSK180B
- Length: 50m
- Width: GSK180: 12mm
GSK180B: 19mm
- Temp. resistant: up to 200°C
(short time up to 275°C)
- Thickness: 180µm

FIXING TAPE SB1-SB4
FIXING CLIP SC1-SC4

Installation Equipment

SB 1

SB 2



SB 3

SB 4

SC 1

SC 2

SC 3

SC 4

Part number	**SB 1**	**SB 2**	**SB 3**	**SB 4**
Length	30 meter	30 meter	piece goods	piece goods
Width	9.5mm; 3/8“	19mm; 3/4"	14mm; Rillenband	16mm
Thickness	0.64mm; 0.025	0.75mm; 0.03“	0.64mm; 0.025“	0.85mm; 0.033
Weight	45g / meter	130g / meter	55g / meter	12g / meter
Material	stainless steel, 1.4310	stainless steel, 1.4310	stainless steel, 1.4310	polyester
Dimensions (LxWxH in mm)	100 x 9.5 x 0.64	245 x 245 x 24	1000 x 14 x 0.64	1000 x 16 x 0.85

Part number	**SC 1**	**SC 2**	**SC 3**	**SC 4**
Quantity	100 pcs	100 pcs	1 pc	1 pc
Width (tape)	9.5mm; 3/8“	19mm; 3/4"	14mm; notch belt	16mm
Thickness (tape)	0.64mm; 0.025	0.75mm; 0.3“	0.64mm; 0.025“	0.85mm; 0.033
Weight	2g/ piece	17g/ piece	19g/ piece	12g/ piece
Material	stainless steel, 1.4310	stainless steel, 1.4310	stainless steel, 1.4310	stainless steel, 1.4310
Dimensions (LxWxH in mm)	110 x 85 x 48	148 x 120 x 80	34 x 19.5 x 13.5	1000 x 16 x 0.85

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Mounting Accessories

Mounting accessories for electrical trace heating.

Labels

Part number: KZ..

Dimensions: 175x80mm
Adhesive: permanent, acryl basis
UV-resistant

Available languages:

German	→ KZD
English	→ KZE
French	→ KZFR
Russian	→ KZR
Spanish	→ KZS
Finnish	→ KZF
Polish	→ KZP

Further languages available upon request.

Insulation Bushing

Part number: ID1 S/B

Insulation bushing for supply cable/ heating cable/ sensor cable protection.

Content:
Mounting plate,
M20x1.5 cable gland incl. counter nut,
round gasket + reduction inset
(clamping zone: 4-12mm),
as well as flat gaskets for ILL..S, ILLw, ILM, ILH and ILS heating cables. (up to 100°C)

Cable Ties

Part number: PKB..

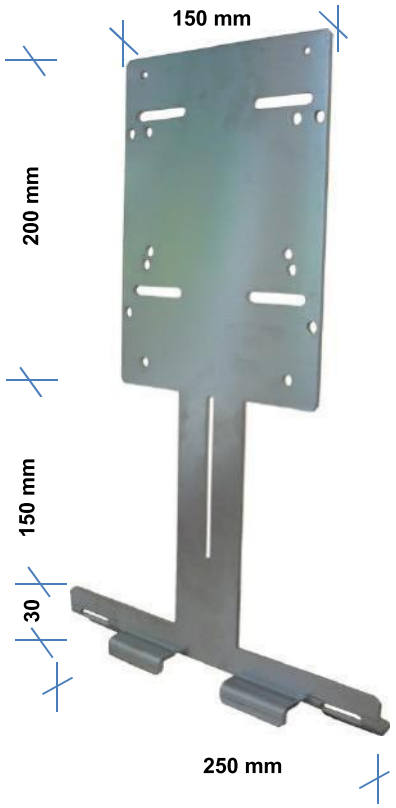
Cable ties for mounting heating tapes to e.g. pipes or wire mat.
Temperature resistant up to 80°C.
UV-resistat. Packing unit = 100 pcs.

Options:

PKB1: Length: 100mm, Width: 2.5mm
PKB2: Length: 200mm, Width: 4.5mm
PKB3: Length: 280mm, Width: 4.5mm
PKB4: Length: 360mm, Width: 4.5mm
PKB5: Length: 450mm, Width: 7.5mm
PKB6: Length: 540mm, Width: 7.5mm
PKB7: Length: 780mm, Width: 9.0mm

Mounting Brackets

For mounting enclosures and thermostats to pipe-work and vessels.



Part number: **MW 1**

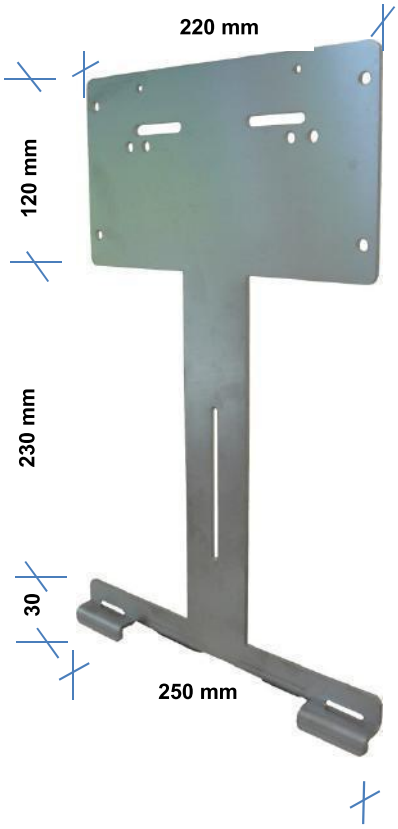
Description: Mounting bracket in stainless steel (1.4301) for following enclosure/ thermostat sizes:

- 122 x 120 x 90mm
- 160 x 160 x 90mm
- 110 x 75 x 55mm

Part number: **MW 1 S**

Description: Mounting bracket MW 1 incl. following mounting accessories:

- 2x1m stainless steel fixing strap SB3 (14 mm wide)
- 2 pcs. turnbuckles SC3
- Screws, nuts and washers to assemble the enclosure



Part number: **MW 2**

Description: Mounting bracket in stainless steel (1.4301) for following enclosure/ thermostat sizes:

- 220 x 120 x 90mm

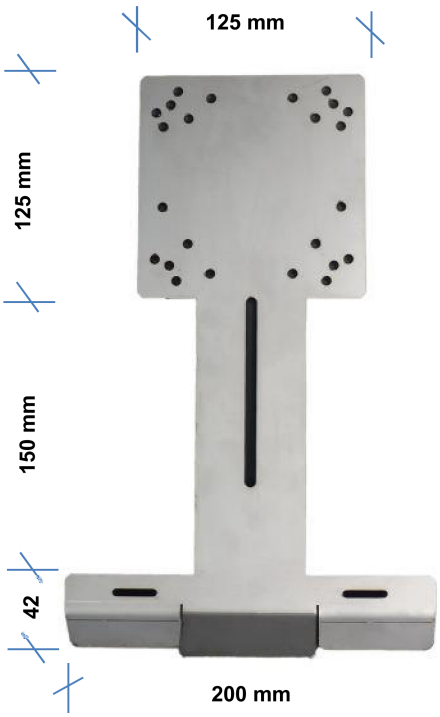
Part number: **MW 2 S**

Description: Mounting bracket MW 2 incl. following fixing accessories:

- 2x1m stainless steel fixing strap SB3 (14 mm wide)
- 2 pcs. turnbuckles SC3
- Screws, nuts and washers to assemble the enclosure.

Mounting Brackets

For mounting enclosures and thermostats to pipe-work and vessels.



Part number: **MW 4**

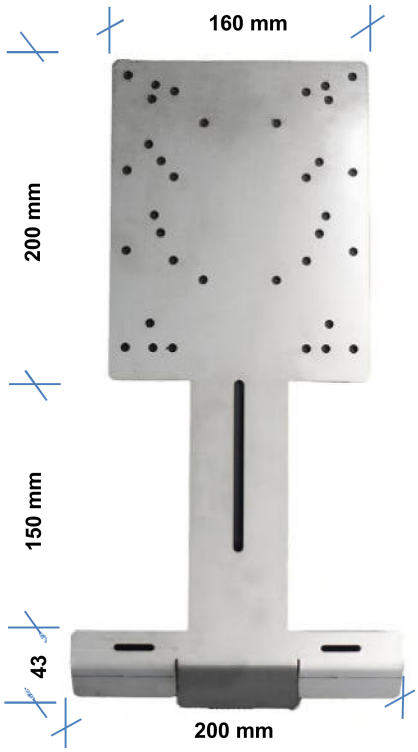
Description: Mounting bracket in stainless steel for following enclosure/ thermostat sizes:

- 110 x 75 x 55mm
- 122 x 120 x 90mm

Part number: **MW 4S**

Description: Mounting bracket MW 4 incl. following mounting accessories:

- 2x1m stainless steel fixing strap SB3 (14 mm wide)
- 2 pcs. turnbuckles SC3
- Screws, nuts and washers to assemble the enclosure



Part number: **MW 5**

Description: Mounting bracket in stainless steel for following enclosure/ thermostat sizes:

- 160 x 160 x 90mm

Part number: **MW 5S**

Description: Mounting bracket MW 5 incl. following fixing accessories:

- 2x1m stainless steel fixing strap SB3 (14 mm wide)
- 2 pcs. turnbuckles SC3
- Screws, nuts and washers to assemble the enclosure.

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Erfahrung ist Zukunft

QUINT Ex

Questionaire for trace heating on pipes

Quintex GmbH, i_park Tauberfranken 13, 97922 Lauda-Königshofen
Telefon +49 (0) 9343 6130 0, Fax: +49 (0) 9343 6130 105

Company*		Contact person*	
Street*		Zip Code/City*	
Telephone*		Fax Number	
Email*		Mobil Number	

Pipeline information

Length[m]*		Nominal diameter[mm]*	
Material		Internal coating	
No. of. flanges		No. of supports	
No. of valves		No. pumps	
Insulationmat.*		Ins.thickness [mm]*	
therm.conduct.*			

Temperature data

Maintain temperature.[°C]*		Max. ambinet temperature[°C]	
Min. ambient temperature[°C]*		Wind velocity (if > 5 m/s) [m/s]	
Max. allowed insulation mat. [°C]		Max. allowed pipe temperature[°C]	
Max. allowed producttemp.[°C]		Max. occuring operation temperature[°C]	

Additonal Data

Power supply [V]		Electrial type of net (if known)	
☐ Ex -area gas	☐ Ex-area dust	Temperatureclass(surfacetemp. dust)*	T3

Additional data for heating up(only for heating up slowly ; some hours!)

Spec. heat pipematerial [kJ/kg K]		Weight of one meter pipe [kg]	
Wallthickness [mm]		Spec weight pipe [kg/m^3]	
Spec. heat product [kJ/kg K]		Spec. weight product[kg/m^3]	
Melting point [°C]		Melting heat [kJ/kg]	
Start temperature heating up[°C]		Endtemperature heating up[°C]	
Time for heating up [h]			

Reamrks

Print

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Send

CH-....

Constant wattage compact heater for application in hazardous area.

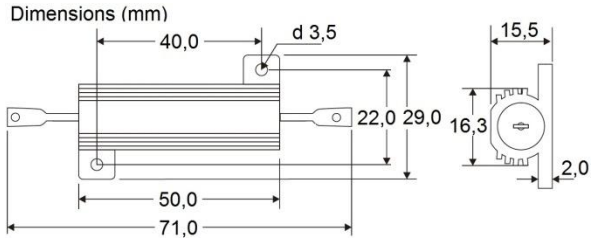
Heating Device Ex

- Compact design
- Easy to use
- Heating resistance
- Robust construction
- Frost protection
- Anti condensation heating

Description

The Compact Heater can be used as a frost protection device or anti-condensation heater for enclosures, small control cabinets and electronic devices in 'Ex'-enclosures. To aid heat dissipation inside enclosures it is recommended to have a good contact to wall surface.

Based on the 'U' approval the temperature class is determined by a thermal check of the application by the user. By this method the use of a temperature limiter is not necessary (refer to approval), but can be used if required.
For 'Ex' applications the Compact Heater must be mounted in an 'Ex' approved enclosure.



Technical Data

Material:	Aluminium Housed
Weight (approx.):	30g (without leads)
Dimensions LxWxH (in mm):	50 x 16.3 x 15.5 (others upon request)
Fixing Holes:	2 x 3.5mm Ø
Fixing Centers (in mm):	40 x 22
Connection Cables:	2 x 0.5m x 1.5mm² flying leads
Power Characteristics:	Constant Wattage
Power Output (W):	6 or 12 (others upon request)
Power Supply:	230V or 24V (others upon request)
Type of Heater:	Wire-Wound Resistor
Min/Max. Temperature:	-60˚C/+200°C.
Temperature Class:	Defined by User

Certificates

ATEX, IECEx

Marking

Ⓔx II 2G Ex eb IIC Gb

Possible Applications

Frost protection, anti-condensation heating within Ex-enclosures, protection of electronic devices & PCB's.

Selection Table

Power Supply (V)	Power Output (W)	Order No.
230	6	CH-230-006-05/050
230	12	CH-230-012-05/050
24	6	CH-024-006-05/050
24	12	CH-024-012-05/050

IH2 65 2 200

Self-limiting heating plate certified for use in hazardous area.

Heating Plate Ex

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

Description

The heating plate type "Quintherm IH2" is a self-limiting heating plate. This compact heating plate has a uniform heat distribution over the whole surface.

Due to its infinite mounting positions, 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.

Possible Applications

- Heating of cabinets
- Condensation prevention
- Heating of pumps

And other typical heating plate applications.

Technical Data

Nominal Supply Voltage:	U_N 230V AC
Rated Voltage:	$U_{max.}$ 277V AC
Power Output:	ca. 65W at +5°C
Protection Class:	IP 65
Ambient Temperatures:	-55°C…+85°C
Temperature Class:	T4
Feeding Cable:	2m 3G1.5mm² Radox
Dimensions (LxWxH in mm):	225 x 82 x 69
Installation Position:	any
Weight:	ca. 2.3 kg

Marking

II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135°C Db

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

IH2 65 2 200

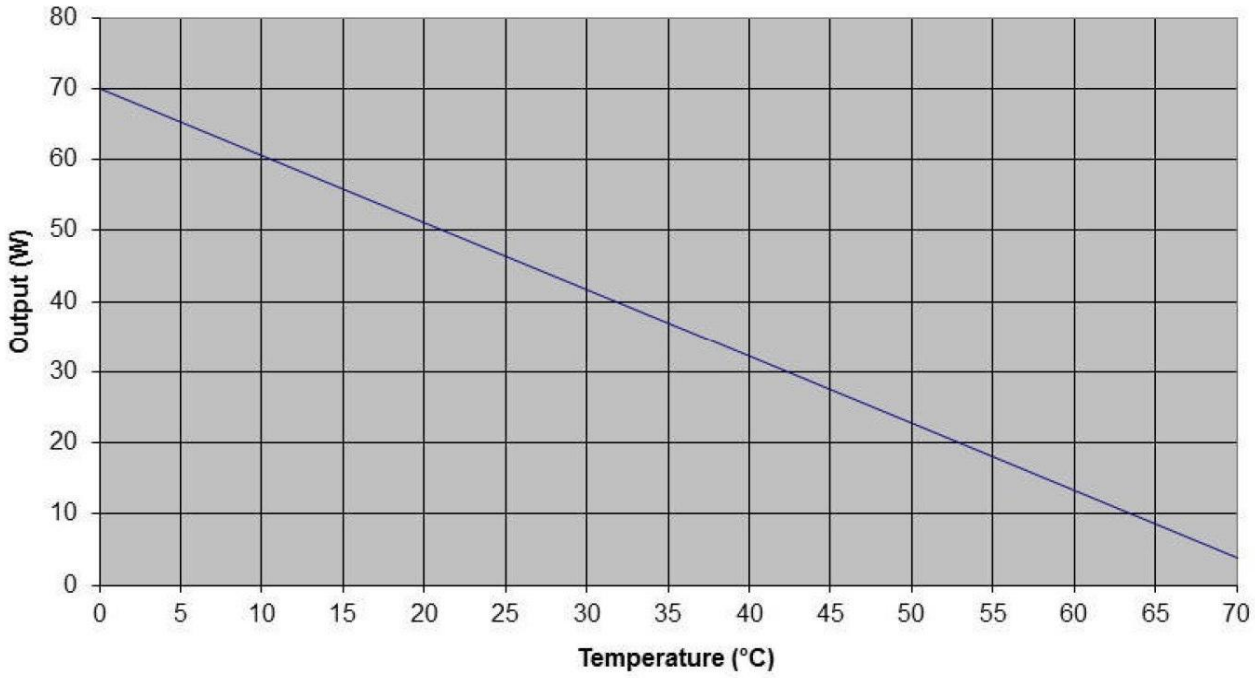
Industrial heating plate
Power output at +5°C
Nominal supply voltage (230V)
Length feeding cable (cm)

Additional Products

Part number:
IRM2Ex/AG: Frost Guard thermostat (see data sheet)

IH2 65 2 200

Output Characteristic Curve



IH2 130 2 200

Self-limiting heating plate certified for use in hazardous area.

Heating Plate Ex

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

Description

The heating plate type "Quintherm IH2" is a self-limiting heating plate. This compact heating plate has a uniform heat distribution over the whole surface.

Due to its infinite mounting positions, 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.

Possible Applications

- Heating of cabinets
- Condensation prevention
- Heating of pumps

And other typical applications.

Technical Data

Nominal Supply Voltage:	U_N 230V AC
Rated Voltage:	$U_{max.}$ 277V AC
Power Output:	ca. 130W at +5°C
Protection Class:	IP 65
Ambient Temperatures:	-55°C…+85°C
Temperature Class:	T4
Feeding Cable:	2m 3G1.5mm² Radox
Dimensions (LxWxH in mm):	280 x 200 x 40
Installation Position:	any
Weight:	ca. 4.3 kg

Marking

II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135°C Db

Approval

ATEX, IECEx, UKEX, EAC

Ordering Infomation

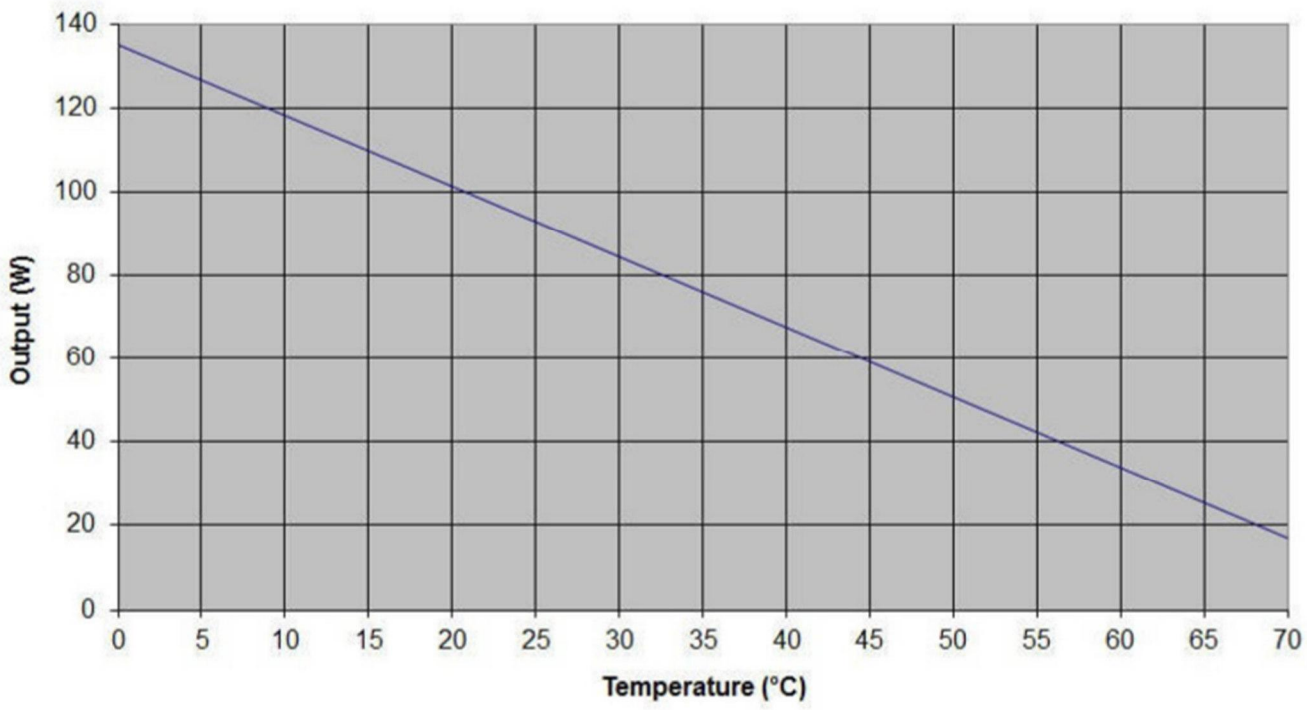
IH2 130 2 200

Industrial heating plate
Power output at +5°C
Nominal supply voltage (230V)
Length feeding cable (cm)

Additional Products

Part number:
IRM2Ex/AG: Frost Guard (see data sheet)

Output Characteristic Curve



IH2 500 2 200

Self-limiting heating plate certified for use in hazardous area.

Heating Plate Ex

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

Description

The heating plate type "Quintherm IH2" is a self-limiting heating plate. This compact heating plate has a uniform heat distribution over the whole surface.

Due to its infinite mounting positions, 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.

Possible Applications

- Heating of cabinets
- Condensation prevention
- Heating of pumps

And other typical heating plate applications.

Technical Data

Nominal Supply Voltage:	U_N 230V AC
Rated Voltage:	$U_{max.}$ 277V AC
Power Output:	ca. 500W at +5°C
Protection Class:	IP 65
Ambient Temperatures:	-55°C…+85°C
Temperature Class:	T3
Feeding Cable:	2m 3G1.5mm² Radox
Dimensions (LxBxH in mm):	630 x 300 x 40
Installation Position:	any
Weight:	ca. 15 kg

Marking

II 2 G Ex mb IIC T3
II 2D Ex mb IIIC T200°C Db

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

IH2 500 2 200

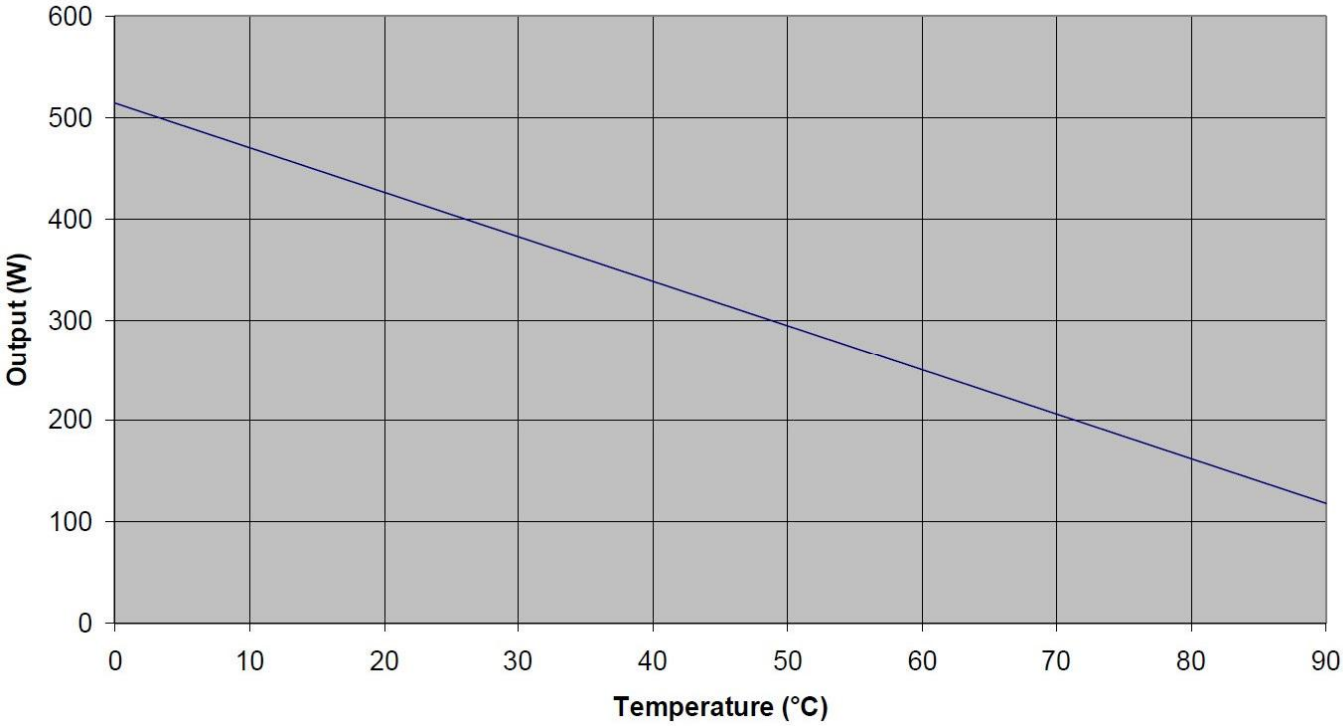
Industrial heating plate
Power Output at +5°C
Nominal supply voltage (230V)
Length feeding cable (cm)

Additional Products

Product number:
IRM2Ex/AG: Frost Guard (see data sheet

IH2 500 2 200

Output Characteristic Curve



IH2 1000 2 200

Self-limiting heating plate certified for use in hazardous area.

Heating Plate Ex

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

Description

The heating plate type "Quintherm IH2" is a self-limiting heating plate. This compact heating plate has a uniform heat distribution over the whole surface.

Due to its infinite mounting positions, 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.

Possible Applications

- Heating of cabinets
- Condensation prevention
- Heating of pumps

And other typical heating plate applications.

Technical Data

Nominal Supply Voltage:	U_N 230V AC
Rated Voltage:	$U_{max.}$ 277V AC
Power Output	ca. 1000W at +5°C
Protection Class:	IP 65
Ambient Temperatures:	-55°C…+85°C
Temperature Class:	T4
Feeding Cable:	2m 3G1.5mm² Radox
Dimensions (LxWxH in mm):	1030 x 420 x 40
Installation Position:	any
Weight:	ca. 31 kg

Marking

II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135°C Db

Approval

ATEX, IECEx, UKEX, EAC

Ordering Information

IH2 1000 2 200

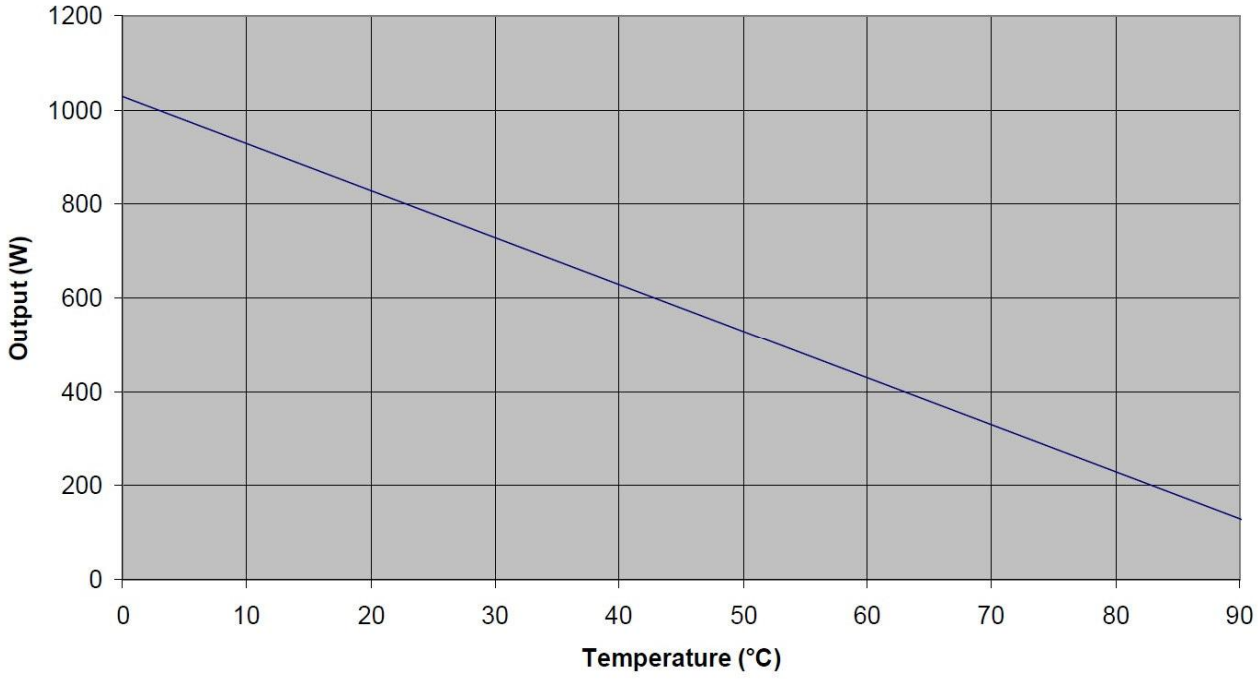
Industrial Heating Plate
Power Output at +5°C
Nominal Supply Voltage (230V)
Length Feeding Cable (cm)

Additional Products

Part number:
IRM2Ex/AG: Frost Guard (see data sheet)

IH2 1000 2 200

Output Characteristic Curve



MH/MS..

Motor stoppage heater to prevent the occurence of condensate and frost damage, for use in hazardous area.

Motor Stoppage Heater Ex

155°C

- Adjusts output power according to ambient temperature
- Customized lengths and versions possible
- Output power up to 60W/m bei 10°C
- No overheating, evene when overlapped
- Available for 220-277V AC (110-120V AC upon request)

Description

The Motor Stoppage Heater Series M. are designed for condensate avoidance and / or temperature maintenance.

The Series M. can be used up to an ambient / workpiece temperature of 155 ° C.

The Motor Stoppage Heaters Series M. are suitable for use in non-hazardous areas and hazardous areas. The self-limiting characteristic improves safety, reliability and eliminates overheating of the heating tape.

High flexibility and compact dimensions allow the use even in very limited space.

Technical Data

Rated Voltage:	220-277V AC (110-120V AC upon request)
Temperature Range:	-55°C…+155°C (Radox) -55°C…+180°C (FEP)
Temperature Class:	T3
Max. Bending Radius:	20mm
Dimensions WxH (in mm):	ILH 9.55x3.35 ILS 10.2x3.5

Approval

ATEX, IECEx, EAC

Ordering Information

Example: MH – 40 1-1 1-001

H=Heating Tape Series ILH
S=Heating Tape Series ILS

Nom. Output Power 40W/m at 10°C

Rated Voltage:
230V AC(1); 115V AC(2); 24V AC(3)

Connecting Wire:
1=0.75mm² Radox 155; 2=0.75mm² FEP

Heating Tape End Seal:
1=Dual Shrinking Sleeve; 2=Silicone Boot HTL

Heating Circuit Length in m, e.g. 001=1m

Further Information

Please consult the installation instructions!

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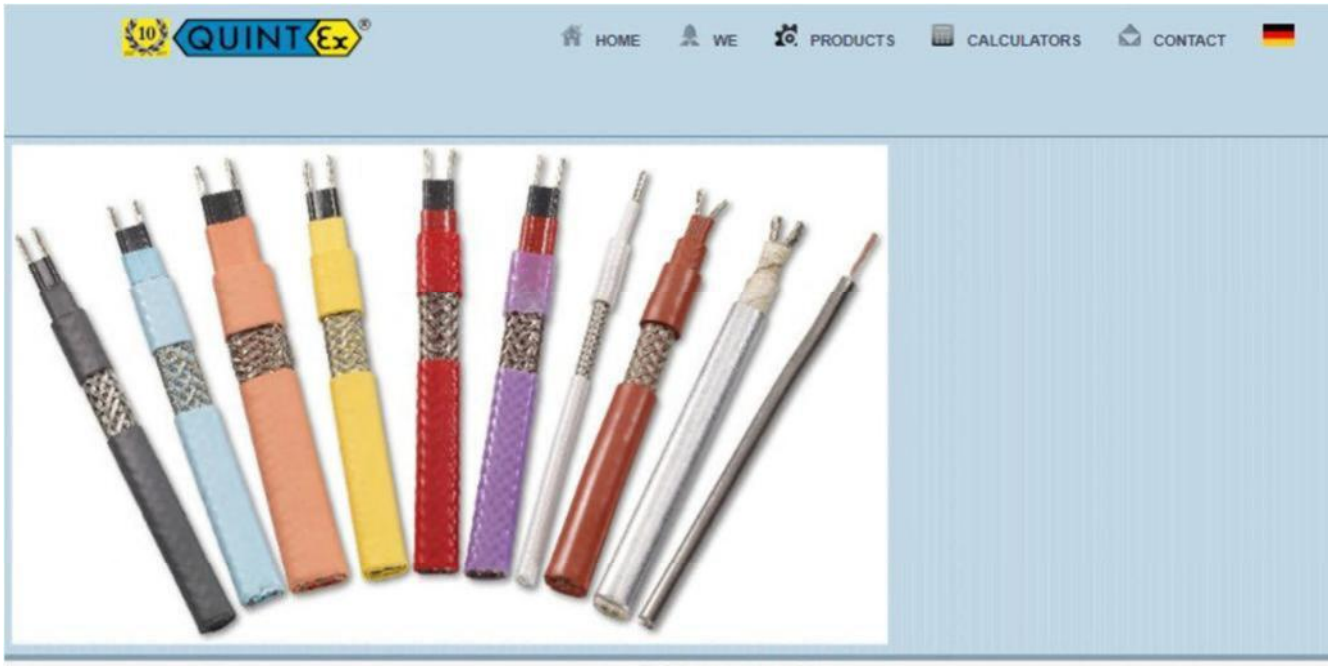

all picture are clickable

Explosion protection and trace heating

YOUR ADVANTAGE

- **Own production**, manufactured in our own, certified facility(s. certificates)
- **Attractive pricing** pay the product,not the overhead, (see web shop / calculators)
- **Online configuration** online calculation for trace heating design, line bushings, terminal boxes (s. online calculator) and local control stations(up to 15 elements in one station)
- **Fast availability** (efficient organization reduces your stock costs)
- **Worldwide approved** (ATEX 'X' approval, IECEx, EAC, CSA, CSA-US,FM,UL etc...for a careless use worldwide
- **Proven quality** (approved quality management, all products in the market for many years)
- **New markets** for you (support by a competent team; for development, approvals or/and applications)
- **Support and solution**; fast and modern, email, phone, fax, online forms, online chat, video conference on demand...choose your preferred way, we are available

GOAL

We are always available to you – continuously, at any time. Contact us. **Use our modern communication tools - from email to online chat, from visit at your facility to video conferences at our show room.** Your requirements are the basis for our solutions. Your needs drive our development. Our goal is to adjust business to meeting your requirements on quality, availability and reliability as well as to meeting legal standards and regulations. **You – our customer – are the benchmark for our business.** By focussing on special product areas, top-level product service and availability is guaranteed – at any time. With our clear organizational structure, fast processes and transparent responsibilities can be ensured – continuously.

Our team

AVAILABILITY

We are doing our utmost to ensure the availability of our standard components. For components to be quickly delivered and used, you can order our products via the web shop. Ordering components via the web shop is easy and fast. Availability in stock is checked online. Products can also be paid for online – in a secured way via state-of-the-art software. Or you can use our online calcuators to accelerate your own project budget calculation. For special requirements, contact our staff with its excellent service competence.
YOU need us?
Contact us. We will arrange a meeting as quickly as possible to jointly find a solution. Even after this stage, we provide comprehensive and fast service.

At Quintex, not only the availability of products but also of support is always guaranteed!

Our product range