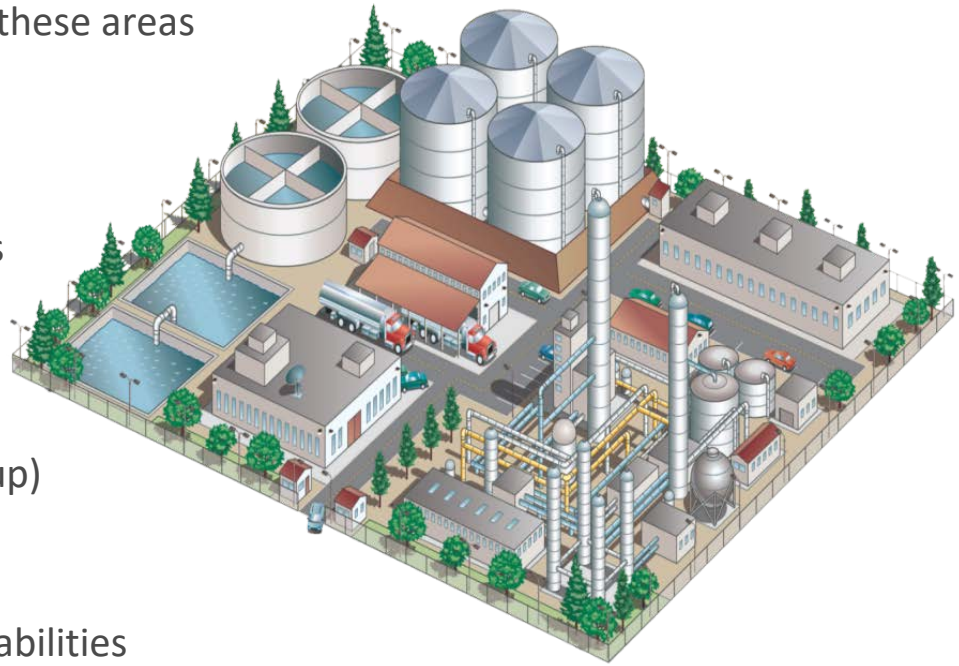
IHTS Area Of Coverage (หน้าหลักเมื่อเข้ามาที่ Raychem)

- **Process area:**
  - Complex pipework
  - Small vessels
  - Multitude of sensitive instruments
  - Small temperature window
  - Typically a lot of maintenance in these areas
  - Short circuit lengths
- **Transfer lines:**
  - Long circuit lengths required from limited power supply points
  - Larger temperature window
  - Less maintenance-intensive
- **Storage vessels:**
  - High power requirements (heat up)
  - Less maintenance-intensive
- **Reactors :**
  - High temperature resistance capabilities
  - High power requirements, usually during start up



SELF REGULATING cable Type (หัวข้อ cable Type1)

	BTV	QTVR	XTV	KTV
Typical applications	• Safety showers • Fire water lines • Process water • Chocolate production • Caustic lines	• Large bore water lines • Fuel oils • Acids • Fertilizers	• Large bore pipes • Steam-cleaned pipes • Oils • Polymers • Heavy fuels	• Heavy oils • High power output requirements • Steam-cleaned pipes
Cable type	BTV	QTVR	XTV	KTV
Maximum maintain temperature	65°C	110°C	120°C	150°C
Maximum exposure Temperature *	85°C	110°C	215°C	215°C
T-classification	T6	T4	T3/T2 (20XTV)	T2
Typical circuit length (40A)	Up to 200m	Up to 115m	Up to 245m	Up to 230m

SELF REGULATING cable Type

			
Typical applications	• pipe freeze protection • Fire water lines • Process water • Chocolate production • Caustic lines	• Large bore water lines • Fuel oils • Acids • Fertilizers	• Large bore pipes • Steam-cleaned pipes • Oils • Polymers • Heavy fuels
Cable type	**HBTV**	**HQTV**	**HXTV**
Maximum maintain temperature	65°C	110°C	121°C
Maximum exposure Temperature *	85°C	110°C	250°C
T-classification	T6	T4	T3/T2 (20HXTV)
Typical circuit length (40A)	Up to 540m	Up to 390m	Up to 765m

Power Limiting Cable (หัวข้อ cable Type2)

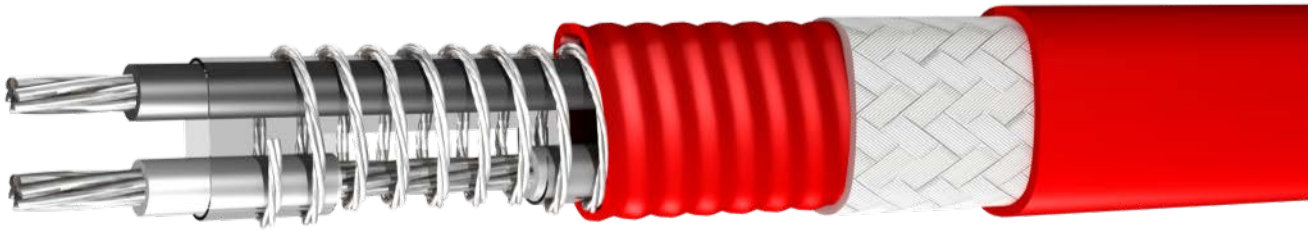
VPL

Power limiting cables are formed by:

- A coiled resistor ally heating element wrapped around two parallel conductors

- At a fixed distance, the insulation is removed from one of the conductors and the process is repeated , removing the insulation from the other conductor

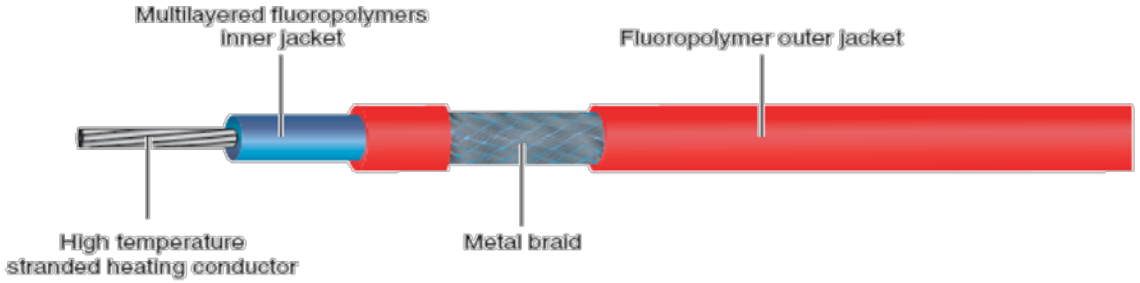
Operating to voltages up to 480V they can provide:
Temperature Maintenance up to 235° C
Exposure Temperature up to 260° C
Circuit lengths up to 450m



- Used for Freeze Protection and Process temperature maintenance requiring High power output and/or high Temperature exposure

Constant wattage Polymer Cable (หัวข้อ cable Type3)

High temperature heating conductor is *Ni plated* for maximum corrosion resistance



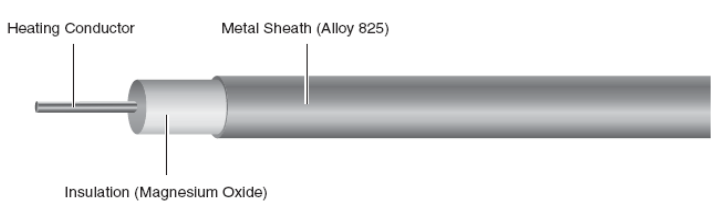
Inner jacket and outer jacket are constructed of *fluoropolymers* for maximum chemical and temperature resistance

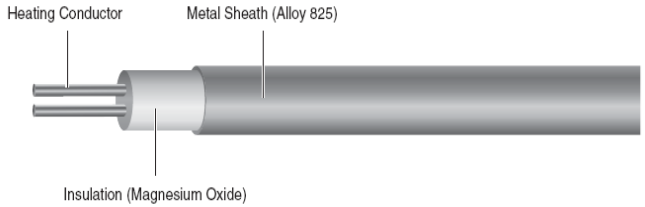
- multilayered fluoropolymer inner jacket makes the cables extremely robust (impact resistance)
- In-house production process (when wrapping PTFE inner and outer jackets to prevent protrusion of the conductors and/or the braid strands) ensures maximulm flexibility and easy stripping

Ni plated copper braid for low ohmic earthing path, to ensure maximum safety of equipment and personnel

Constant wattage MI Cable (หัวข้อ cable Type4)

- **One or two high temperature heating conductors in different alloys for various electrical configurations and short or small bore lines (impulse lines)**





- **Inner insulation: highly dielectric MgO, for its ability to withstand extreme temperatures without electrical breakdown.**

- **Metallic outer jacket: available in different materials to optimise its ability to withstand extreme temperatures and aggressive chemical environments.**

- **Therefore Mineral Insulated heating cables come factory terminated**
  - Extensively tested before leaving the factory
  - Connections made in an ideally controlled environment by experienced personnel

>>>No on site surpises!

IHTS Products – Constant wattage MI Cable

Pentair Thermal Management offers Mineral insulated series heating systems under the brand

A range of sheath materials to deal with different temperature withstanding requirements

Cable Reference	Sheath material	Max. Sheath temperature	Max. Typical power output
HCCH/HCCH	Copper with HDPE over sheath	80°C	50W/m
HCC/HCH	Copper	200°C	
HCCP/HCHP	Copper with FEP over sheath		
HDC/HDF	Cupro-Nickel (70/30)	400°C	70W/m
HSQ	Stainless Steel 321	450°C with silver solder joint	150W/m
		750°C with laser welded joint	
HIQ	Inconel 600	450°C with silver solder joint	300W/m
		750°C with laser welded joint	
Hax	Alloy 825	550°C with silver solder joing	270W/m
		750°C with laser welded joint	