

Modular System for Frost Protection of Gutters

Raychem

Raychem **FlexiClic-GM** is a brand new innovation in gutter snow and ice prevention. The modular self-regulating heating units provide ultra fast & flexible design and installation of the heating system, reducing total installed costs significantly. The modules can be easily extended by connecting 2 or more together either in-line or as a Tee connection.

The modules click together and the electrical connection is made – speed and simplicity for the installer.

Raychem **FlexiClic-GM** comes with a complete range of accessories including power cables, end seals, and T-connectors for quick and easy assembly. The system

is also compatible with Raychem “Smart” controls.

Raychem **FlexiClic-GM** provides high quality self-regulating, energy-efficient snow and ice melting for the end user, whilst ensuring a fast, flexible and reliable installation every time.

Easy to install system

Power lead to heating module connection.

Ambient sensor for EMDR-10 control unit

Moisture sensor for EMDR-10 control unit

Modular power cable

EMDR-10 Smart control unit

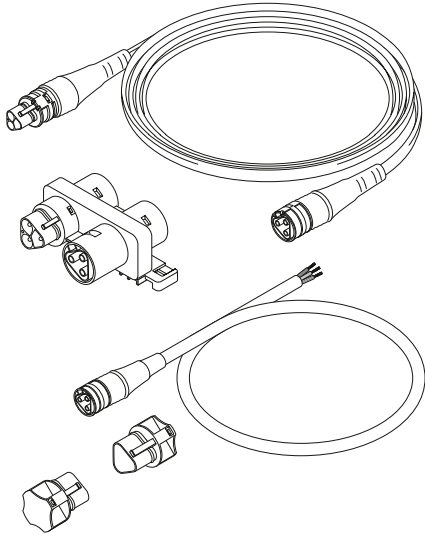
Heating module end seal



Important Notice: All electrical systems should be installed and commissioned by a trained and approved electrician, and be in accordance with all local applicable electrical regulations.

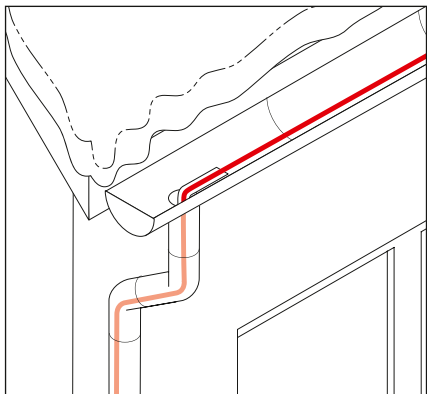
Design Guide – FlexiClic-GM

1. Technical data

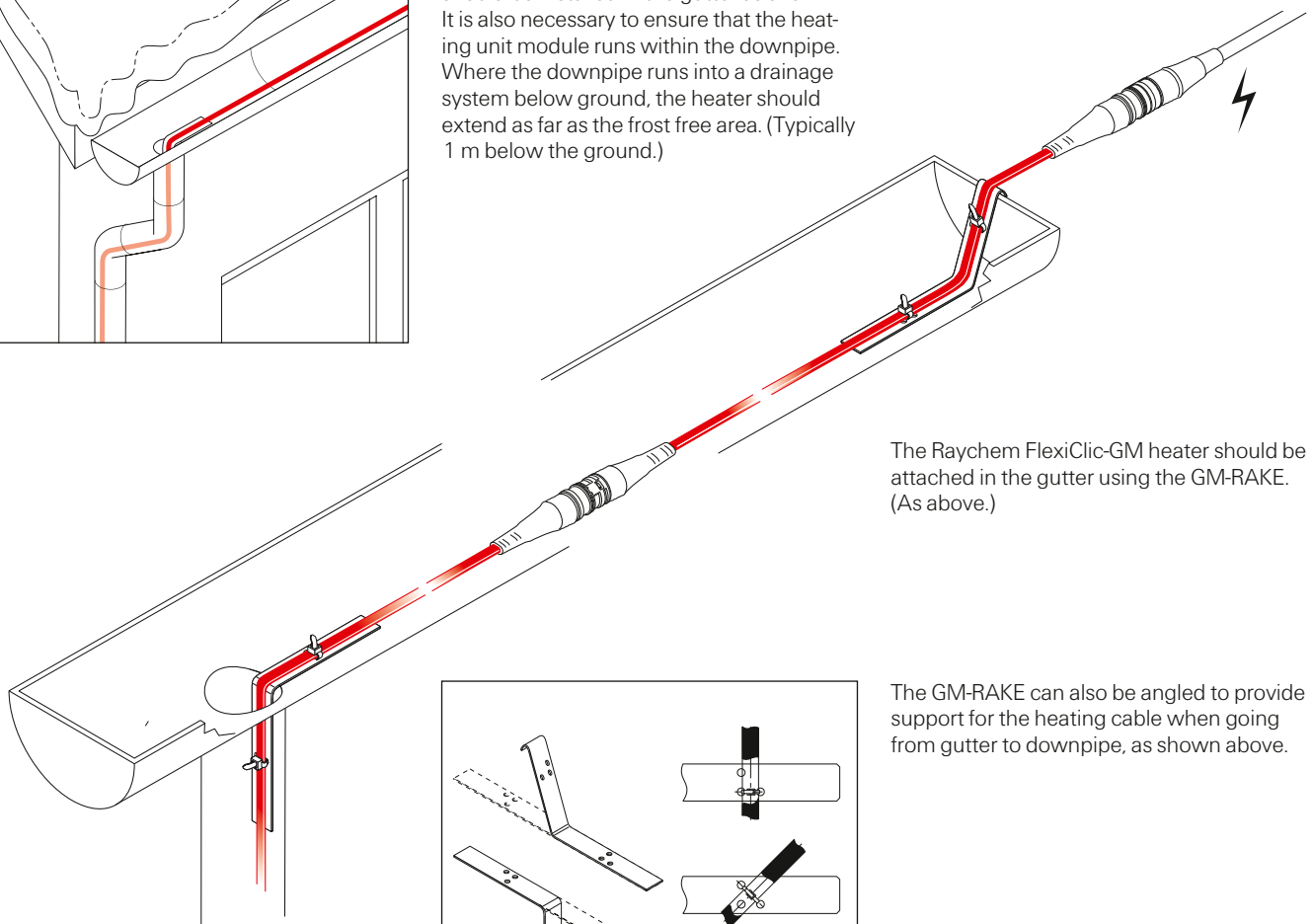


Nominal power	16 W/m in the air at 0°C
Voltage	230Vac
Maximum exposure temperature	65°C
Cable dimensions	12.7 mm x 5.3 mm
Module dimensions	25 mm Diameter
Circuit breaker required	Type C
RCD	30 mA
Heating cable construction	Twin conductor self regulating core, with fully braid for electrical and mechanical protection and polymer outer jacket (PVC Free.)
Certification	CE
UV Resistant	Yes
Ingress protection rating	IP66/68 1m H ₂ O - 12 weeks
Maximum circuit length	80 m

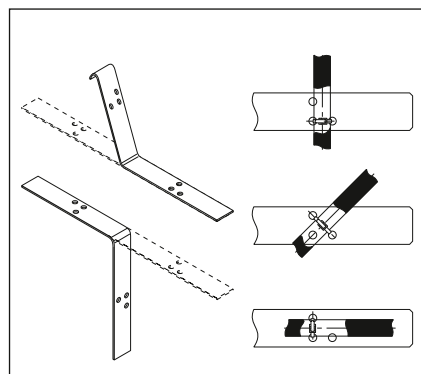
2. Fixing the cable in the gutter



The Raychem FlexiClic-GM heating system should be installed in the gutter as shown. It is also necessary to ensure that the heating unit module runs within the downpipe. Where the downpipe runs into a drainage system below ground, the heater should extend as far as the frost free area. (Typically 1 m below the ground.)



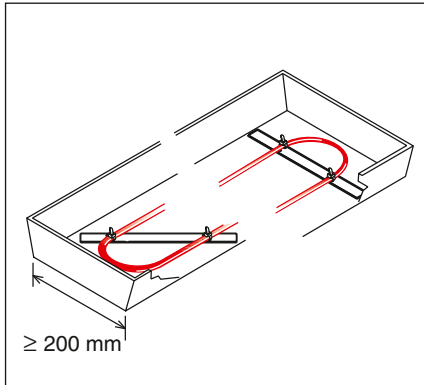
The Raychem FlexiClic-GM heater should be attached in the gutter using the GM-RAKE. (As above.)



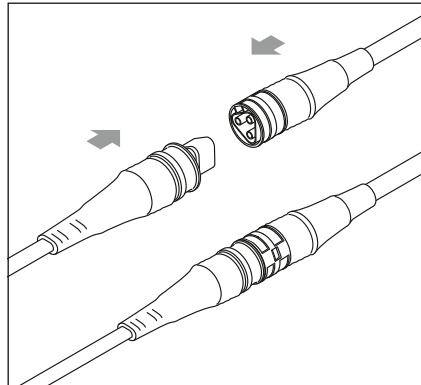
The GM-RAKE can also be angled to provide support for the heating cable when going from gutter to downpipe, as shown above.

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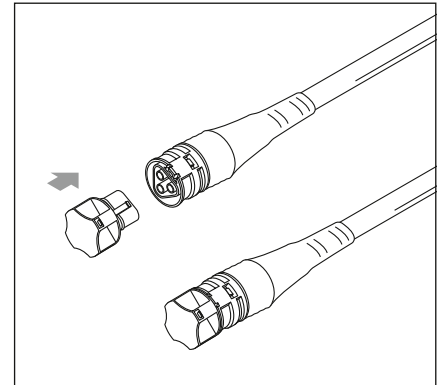
3. Installation in a "Box" type gutter



For a "Box" type gutter of width greater than 200 mm, the heating module should be fixed into the gutter using the GM-RAKE as shown above.



The power cable is connected to the heating module by simply "clicking" together the 2 modules, as shown above.



Above: At the end of the gutter or down-pipe, simply install an end seal to the end of the heating module to seal the circuit.

4. Packaging and ordering

Heating Modules/Part number	Product name	Description
1244-006194	FlexiClic-GM-1M	1 m heating module
1244-006195	FlexiClic-GM-3M	3 m heating module
1244-006196	FlexiClic-GM-5M	5 m heating module
1244-006197	FlexiClic-GM-10M	10 m heating module
1244-006198	FlexiClic-GM-15M	15 m heating module
1244-006199	FlexiClic-GM-20M	20 m heating module

Accessories

1244-005741	FlexiClic-CE	Connection and End Seal Kit (Connector block + 2 end seals)
1244-005742	FlexiClic-E-PACK	End Seal pack
1244-005743	FlexiClic-PCABLE-1M	1 m modular power cable (Inc. end seal)
1244-006200	FlexiClic-PCABLE-3M	3 m modular power cable (Inc. end seal)
912791-000	GM-Rake	Fixing bracket for heating cable

Controllers

449554-000	EMDR-10	Multi Sensor, Electronic "Smart" Control
C71431-000	HTS-D	Thermostat

5. Electrical Protection

Heat tracing installations should be made:

- According to all local standards and regulations.
- Incorporating a residual current device (RCD); 30 mA required with a maximum of 500 m of heater per RCD.
- The power connections must be made by an approved electrical installer.
- Incorporating C Type circuit breakers.

Amp rating	Max. length of heating circuit.
6 A	25 m
10 A	40 m
13 A	65 m
16 A	80 m

6. Testing the installation

For information concerning the test procedure for heat tracing installations, please refer to the "Raychem FlexiClic-GM" installation instruction, reference number: INST-285.

7. Specification Guidance

A product specification guideline is available upon request from Tyco Thermal Controls. It is also available at: www.tycothermal.com

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