FROST PROTECTION FOR GUTTERS AND DOWNPIPES

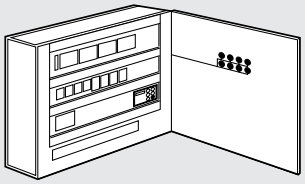
Melting and refreezing of ice can damage roofs and gutters. Heavy icicles may fall and cause injury. Standing water can leak through interior walls onto furnishings.
The Raychem self-regulating snow melting system maintains water flow in gutters and drain pipes and provides a path whereby melting ice and snow can drain safely off the roof, along the gutter and down the drain pipe.

PRACTICAL TO INSTALL

The self-regulating cable can be closely spaced in gutters without the risk for overheating or burn-outs. There is a cable for each type of roof material.

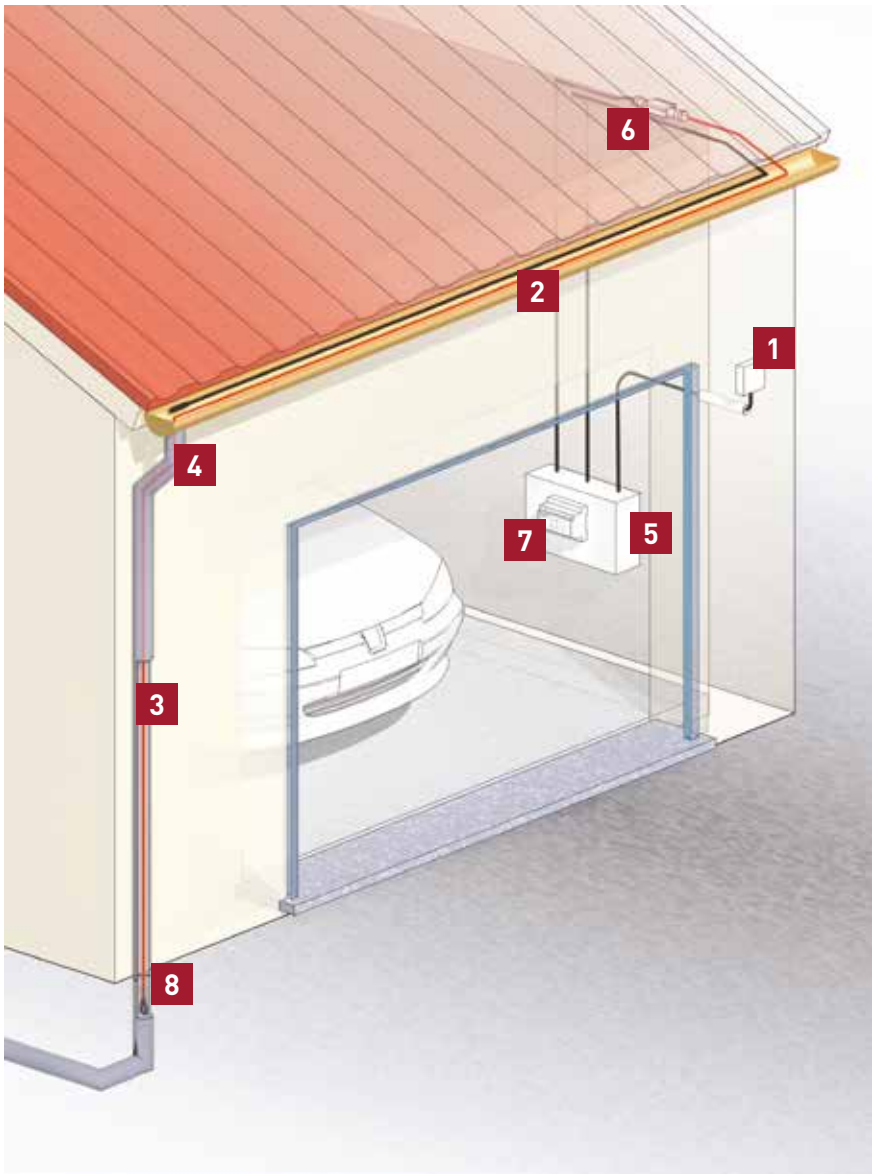
ECONOMICAL TO OPERATE

The self-regulating effect saves energy by automatically increasing its heat output in icy water and decreasing its output in dry air. The smart EMDR-10 control unit only switches the heating cable on when necessary: after the detection of both low temperature and moisture.



Optional: SBS-xx.EV-10 control panel
Contains: Residual current device (RCD 30 mA), Circuit Breaker (C characteristics) EMDR-10 control unit

Do not install RayClic immersed in water.
Do not bury RayClic in the ground.



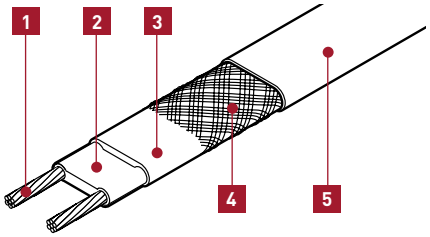
1 Ambient sensor EMDR-10 (incl.)
2 Moisture sensor EMDR-10 (Incl.)
3 Heating cable GM-2X(T)
4 Fixing bracket (GM-RAKE)
5 EMDR-10 Control unit
6 Connection RayClic CE-02
7 Residual current device (rcd 30 mA) Circuit-breaker (C type)
8 End seal (RayClic-E-02)

1 HEATING CABLE SELECTION

GM-2X, GM-2XT

Self-regulating heating cable for gutters, drain pipes and roof surfaces:
- 36 W/m in iced water and 18 W/m in air at 0°C

2 COMPOSITION OF GM-2X AND GM-2XT



1. Copper conductor (1.2 mm²)
2. Self-regulating heating element
3. Insulation made of modified polyolefin
4. Tinned copper braid
5. Protective jacket (UV-resistent) (Modified polyolefin jacket for GM-2X and fluoropolymer jacket for GM-2XT)

Important note: When laying cables on asphalt, bitumen, roofing felt, etc., a cable with a special fluoropolymer jacket (GM-2XT) must be used.

Technical data: see page 67

3 CABLE LENGTH

- The heating cable should be installed in a straight line in the gutter
- The cable lengths should be adjusted according to the geographical situation and the gutters
- More than one cable should be laid in wide valley, parapet or box gutters

Gutter length
+ drainpipe length
+ 1 m per connection
+ 1 m in the soil (frost line)
= required heating cable length

4 ELECTRICAL PROTECTION

- The length of heating cable determines the number and size of the circuit breakers
- Residual current device (rcd) : 30 mA required, max. 500 m heating cable per rcd
- Installation according to local regulations
- The power connections must be carried out by an approved electrical installer
- Use C type circuit-breakers

Max. length of the heating circuit is based on a minimum switch-on temperature of –10°C, 230 VAC.

	GM-2X, GM-2XT
6A	25 m
10 A	40 m
13 A	50 m
16 A	60 m
20 A	80 m

5 TESTING OF THE INSTALLATION

See page 64