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Building environment design — Design, dimensioning, installation and control of embedded radiant heating and cooling systems —

Part 5: **Installation**

Conception de l'environnement des bâtiments — Conception, construction et fonctionnement des systèmes de chauffage et de refroidissement par rayonnement —

Partie 5: Installation

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11855-5 was prepared by Technical Committee ISO/TC 205, *Building environment design*

ISO 11855 consists of the following parts, under the general title *Building environment design — Design, dimensioning, installation and control of embedded radiant heating and cooling systems*:

— *Part 1: Definition, symbols, and comfort criteria*[1)]

— *Part 2: Determination of the design heating and cooling capacity*

— *Part 3: Design and dimensioning*

— *Part 4: Dimensioning and calculation of the dynamic heating and cooling capacity of Thermo Active Building Systems (TABS)*

— *Part 5: Installation*

— *Part 6: Control*

Part 1 of this International Standard defines the comfort criteria which should be considered in designing embedded radiant heating and cooling systems, since the main objective of the radiant heating and cooling system is to satisfy thermal comfort of the occupants. In Part 2, steady-state calculation methods for determination of the heating and cooling capacity are provided. Part 3 specifies the design and dimensioning method of radiant heating and cooling systems to ensure the heating and cooling capacity. Part 4 provides a dimensioning and calculation method to design Thermo Active Building Systems (TABS) for energy-saving, since radiant heating and cooling systems can reduce energy consumption and heat source size by using renewable energy. Part 5 describes the installation process for the system to operate as intended. Finally, Part 6 describes a proper control method for the radiant heating and cooling systems to ensure the maximum performance which was intended in the design stage when the system is actually being operated in a building.

1) Parts 1, 2, 3, 4 and 6 are to be published.