II

(Acts whose publication is not obligatory)

COUNCIL

COUNCIL DIRECTIVE

of 17 December 1974

on the approximation of the laws of the Member States relating to cold-water meters

(75/33/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament (1);

Having regard to the Opinion of the Economic and Social Committee (2);

Whereas in the Member States the construction and the methods of control of cold-water meters are subject to mandatory provisions which differ from one Member State to another and consequently hinder trade in such instruments; whereas it is therefore necessary to approximate these provisions;

Whereas Council Directive No 71/316/EEC (3) of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control, as amended by the Act of Accession (4), laid down the EEC pattern approval and EEC initial verification procedures; whereas, in accordance with that Directive, the technical requirements for the design and functioning of cold-water meters should be laid down; whereas such requirements must be met, and the controls must be carried out, and the appropriate signs and marks affixed, before these instruments can be freely imported, marketed and used,

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive shall apply to cold-water meters, which are integrating measuring instruments for continuously determining the volume of water (and no other liquid) passing through them, and which comprise a measuring device linked to an indicating device. Water shall be considered to be 'cold' when its temperature is in the range 0° to 30° C.

Article 2

Cold-water meters which may bear the EEC marks and signs are described in the Annex to this Directive. They shall be subject to EEC pattern approval and submitted to EEC initial verification.

Article 3

No Member State may refuse, prohibit or restrict the placing on the market or entry into service of cold-

(1) OJ No C 2, 9. 1. 1974, p. 62.
(2) OJ No C 8, 31. 1. 1974, p. 6.
(3) OJ No L 202, 6. 9. 1971, p. 1.
(4) OJ No L 73, 27. 3. 1972, p. 14.

water meters bearing the EEC pattern approval symbol and the EEC initial verification mark, on the grounds of their metrological properties.

Article 4

1. Member States shall put into force the laws, regulations and administrative provisions needed in order to comply with this Directive within 18 months of its notification and shall forthwith inform the Commission thereof.

2. Member States shall ensure that the texts of the main provisions of national law which they adopt in the field covered by this Directive are communicated to the Commission.

Article 5

This Directive is addressed to the Member States.

Done at Brussels, 17 December 1974.

For the Council

The President

M. DURAFOUR

ANNEX

I. TERMINOLOGY AND DEFINITIONS

1.0. This Annex applies only to cold-water meters based on a direct mechanical process involving the use of volumetric chambers with mobile walls or the action of the velocity of the water on the rotation rate of a moving part (turbine, impeller etc. . . .).

1.1. **Flowrate**

The flowrate is the volume of water passing through the meter per unit of time, the volume being expressed in cubic metres or litres and the time in hours, minutes or seconds.

1.2. **Volume delivered**

The volume delivered is the total volume of water which has passed through the meter in a given time.

1.3. **Maximum flowrate** (Q_{max})

The maximum flowrate, Q_{max}, is the highest flowrate at which the meter can function over limited periods without damage, and without exceeding the maximum permissible errors and the maximum permissible value for loss of pressure.

1.4. **Nominal flowrate** (Q_n)

The nominal flowrate, Q_n, is equal to half the maximum flowrate, Q_{max}. It is expressed in cubic metres per hour and is used to designate the meter.

At the nominal flowrate, Q_n, the meter should be able to function in normal use, i.e., in continuous and intermittent operating conditions, without exceeding the maximum permissible errors.

1.5. **Minimum flowrate** (Q_{min})

The minimum flowrate, (Q_{min}), is the flowrate above which the meter must not exceed the maximum permissible errors, and is fixed as a function of Q_n.

1.6. **Flowrate range**

The flowrate range of a water meter is bounded by the maximum and minimum flowrates, Q_{max} and Q_{min}. It is divided into two regions, termed upper and lower, with different maximum permissible errors.

1.7. **Transitional flowrate:** (Q_t)

The transitional flowrate, Q_t, is the flowrate which divides the upper and lower regions of the flow range and the rate at which the maximum permissible errors become discontinuous.

1.8. **Maximum permissible error**

The maximum permissible error is the limit of the error permitted by this Directive for EEC pattern approval and EEC initial verification of a water meter.

1.9. **Loss of pressure**

Loss of pressure means the loss which is caused by the presence of the water meter in the conduit.

II. METROLOGICAL CHARACTERISTICS

2.1. **Maximum permissible errors**

The maximum error permitted in the lower region, from Q_{min} inclusive to Q_t non-inclusive, is $\pm$ 5 %.

The maximum error permitted in the upper region, from Q_t inclusive to Q_{max} inclusive, is $\pm$ 2 %.

2.2. **Metrological classes**

Water meters are divided, according to the values of Q_{min} and Q_t defined above, into the three metrological classes in the following table:

Classes	Q_n	
	< 15 m³/h	≥ 15 m³/h
Class A		
Value of: Q_{min}	0·04 Q_n	0·08 Q_n
Value of: Q_t	0·10 Q_n	0·30 Q_n
Class B		
Value of: Q_{min}	0·02 Q_n	0·03 Q_n
Value of: Q_t	0·08 Q_n	0·20 Q_n
Class C		
Value of: Q_{min}	0·01 Q_n	0·006 Q_n
Value of: Q_t	0·015 Q_n	0·015 Q_n

III. TECHNOLOGICAL CHARACTERISTICS

3.1. **Construction — General provisions**

The meters must be constructed in such a way as to:

(1) give long service and guarantee proof against fraud,

(2) conform with the provisions of this Directive, under normal conditions of use.

Where meters may be subjected to an accidental reversal of flows they must be capable of withstanding it without any deterioration or change in their metrological properties, and at the same time should record such a reversal.

3.2. **Materials**

The water meter must be made of materials of adequate strength and stability for the purpose for which the water meter is to be used. It must be constructed throughout of materials which are resistant to internal and normal external corrosion and if necessary be protected by some suitable surface treatment. Water temperature variations within the working temperature range must not adversely affect the materials used in the construction of the water meter.