

MetrD: Metrology Framework Directive (Directive 2009/34/EC), explained

The Metrology Framework Directive sets the EC pattern approval and EC initial verification procedures and marks of the old-approach metrology system, applied by its separate directives and accepted in every Member State. It entered into force on 18 May 2009 as a recast of Directive 71/316/EEC and was adapted to delegated acts by Regulation (EU) 2019/1243 from 26 July 2019.

Reviewed 24 September 2026 by Conphora compliance team · Next review 12 March 2027 · Not legal advice

Key facts

Reference	Directive 2009/34/EC	Act type	Directive
In force	18 May 2009	Applies from	18 May 2009
Amended by	Regulation (EU) 2019/1243	Enforced by	The metrological services of the Member States apply the directive: they grant, extend and withdraw EC pattern approval, carry out EC initial verification, affix the verification marks, prevent the use of confusable marks and may forbid the placing on the market and putting into service of instruments whose approved pattern shows a general defect, with every refusal, withdrawal or prohibition reasoned and open to the national remedies; since 16 July 2021 the directive is point 28 of Annex I to Regulation (EU) 2019/1020, so the national market surveillance authorities also hold that regulation's investigation and enforcement powers for it.

Key dates

26 July 1971	Council Directive 71/316/EEC adopted, the original common provisions for measuring instruments and methods of metrological control that Directive 2009/34/EC recasts; transposition deadline 30 January 1973	Annex III, Part A and Part B
1 January 2004	Danish executive order 1139 of 15 December 2003 on EØF-typegodkendelse og -verifikation enters into force, replacing executive order 154 of 10 March 1995; approvals issued under the old order remain valid until they expire or are withdrawn	§ 25 and the official note
30 October 2006	Measuring Instruments Directive 2004/22/EC applies and repeals eleven old-approach instrument directives adopted under Directive 71/316/EEC: gas meters, meters for liquids other than water and their ancillary equipment, material measures of length, cold-water meters as regards MI-001, continuous totalising weighing machines, electrical energy meters, taximeters, measuring systems	Art. 22, Art. 23 and Art. 24

for liquids other than
water, automatic
checkweighing and
weight-grading
machines and hot-
water meters

23 April 2009	Directive 2009/34/EC adopted by the European Parliament and the Council as a recast of Directive 71/316/EEC; published in OJ L 106 of 28 April 2009	title and OJ reference
18 May 2009	Entry into force, the twentieth day after publication; Directive 71/316/EEC as amended by the acts in Annex III, Part A is repealed and references to it are read as references to the recast per the Annex IV correlation table	Art. 20 and Art. 21; document information, dates
1 April 2010	Danish executive order 349 of 30 March 2010 in force: EØF-typegodkendelse is applied for and granted by Sikkerhedsstyrelsen, which replaces Den Danske Akkrediterings- og Metrologifond throughout the order and authorises the verification laboratories	§ 1, nr. 2 to 5, and § 2
7 April 2011	Directive 2011/17/EU in force, the twentieth day after publication in OJ L 71 of 18 March 2011: it repeals the eight remaining instrument directives adopted under Directive	recital 2, Art. 1 to Art. 3 and Art. 7

71/316/EEC in two steps

1 July 2011

Directive 71/349/EEC Art. 1, Art. 5(1) and Art. 6(1)
on the calibration of
the tanks of vessels
repealed; EC initial
verifications carried
out and calibration
certificates issued
until 30 June 2011
remain valid

1 December 2015

Directives Art. 2, Art. 3, Art. 5(2) and Art. 6(2)
71/317/EEC and
74/148/EEC on
weights, 71/347/EEC
on the standard mass
of grain, 75/33/EEC
on cold-water meters,
76/765/EEC on
alcoholometers,
76/766/EEC on
alcohol tables and
86/217/EEC on tyre
pressure gauges
repealed; EC pattern
approvals and
certificates issued
until 30 November
2015 under
Directives
71/347/EEC,
75/33/EEC,
76/765/EEC and
86/217/EEC remain
valid (Article 6(2));
weights conforming
to Directives
71/317/EEC and
74/148/EEC could
instead be subject to
EC initial verification
until 30 November
2025 (Article 6(3)),
and Directive
76/766/EEC on
alcohol tables has no
transitional provision

20 April 2016

Directive 2014/32/EU Art. 2(1), Art. 51 and Art. 52; Art. 1(1), Art. 45 and Art. 46
(MID) and Directive
2014/31/EU (NAWI)

apply: the ten MID
instrument categories
and all non-automatic
weighing instruments
follow the new-
approach conformity
assessment with CE
marking, not the EC
pattern approval and
EC initial verification
of this directive

26 July 2019	Regulation (EU) 2019/1243 in force: Article 5(3) on limited approvals deleted, Article 16 replaced by an empowerment to amend Annexes I and II by delegated act, Article 16a inserted with a five-year delegation from this date, Article 17 on the committee deleted	Annex, section VII (Internal market, industry, entrepreneurship and SMEs), point 5
13 June 2020	Commission Directive (EU) 2019/1258 applies: adopted under Article 16 of this directive, it aligns the SI base unit definitions in the Annex to Directive 80/181/EEC with the 2018 decision of the General Conference on Weights and Measures	citations, recital 2, Art. 1 and Art. 2
1 July 2021	Legal metrology in Denmark comes under the product act (lov om produkter og markedsovervågning), which lists the directive on common provisions for measuring instruments and methods of metrological control in section 2	§ 2, stk. 1, nr. 15

16 July 2021	Regulation (EU) 2019/1020 applies: Directive 2009/34/EC is point 28 of its Annex I, so market surveillance authorities hold the regulation's powers for it; the directive is not in Annex II, so the penalty duty of Article 41 attaches through national law rather than to the directive itself	Art. 14, Art. 16, Art. 41, Art. 44, Annex I point 28 and Annex II
26 July 2024	End of the first five-year period of the Commission's delegated power under Article 16a(2); the delegation is tacitly extended for identical periods unless the European Parliament or the Council opposes no later than three months before the end of each period	Art. 16a(2)
30 November 2025	Last day on which weights conforming to Directives 71/317/EEC and 74/148/EEC may be subject to EC initial verification under Articles 8, 9 and 10 of this directive	Art. 6(3)
1 January 2026	Sikkerhedsstyrelsen becomes the department Markedsovervågning of Erhvervsstyrelsen and continues the same tasks, including EØF-typegodkendelse and the authorisation of verification laboratories	§ 9

Obligations by role

Manufacturer

- Apply for EC pattern approval yourself or through your representative established in the Community, in one Member State only for one and the same instrument, in the official language of that Member State, sending a copy of the application to every other Member State at the same time.

Art. 2(4) and Annex I point 1.1

- State in the application your name and address or those of your representative, the category of instrument, the intended use, the measurement characteristics and the commercial designation or type, and enclose in duplicate a description of the construction and operation, the protecting arrangements, the regulation and adjustment devices and the intended locations of verification marks and seals, general arrangement and detail drawings, a schematic drawing and, where relevant, existing national approvals. Annex I points 1.2, 1.3 and 1.4
- Put the standards, material and assisting personnel that the metrological service requires at its disposal for the approval examination, which covers the entire performance of the instrument under normal conditions of use, and deposit a sample instrument, parts, scale models or drawings where the service requests it. Annex I points 2.2, 2.4 and 4
- Affix the EC approval sign shown in the certificate, the stylised epsilon with the Member State letters and the last two digits of the year above and the identification number below, to each instrument conforming to the approved pattern where Article 11 or a separate directive requires it, and otherwise at your option; the sign must be visible, legible and indelible. Art. 4 and Annex I points 3.1 and 3.5
- Keep the granting Member State informed of any modification of or addition to the approved pattern and obtain additional EC pattern approval where the change influences or might influence measurement results or the prescribed conditions of use; where the rules have changed so that the modified pattern could be approved only under the new provisions, a new approval is needed instead. Art. 2(5)
- Watch the validity of the approval: it lasts 10 years, may be extended for successive periods of 10 years, cannot be extended after an amendment or adaptation of the Community provisions under which it could no longer be granted, and continues to apply to instruments already in service; a limited approval for a new technique lasts at most two years, extendable by up to three. Art. 5(1) and Art. 5(2)
- Submit new or reconditioned instruments for EC initial verification with the measurement characteristics and the technical construction and functioning requirements of the separate directive, and where verification takes place outside the office, provide the standards, means and assisting personnel and a copy of the EC approval certificate; where a separate directive exempts the category from approval or verification, affix instead the reversed-epsilon sign or the approval sign in a hexagon on your own responsibility. Art. 6, Art. 8, Art. 11, Annex I points 3.3 and 3.4 and Annex II point 2.3
- Submit new or reconditioned instruments for EC initial verification against the separate directive's measurement and construction requirements and, where verification takes place outside the office, provide the standards, means, assisting personnel and a copy of the EC approval certificate.
Art. 6, Art. 8 and Annex II point 2.3
- Where a separate directive exempts the category from EC pattern approval or initial verification, affix the reversed-epsilon sign or the approval sign in a hexagon on your own responsibility.
Art. 11 and Annex I points 3.3 and 3.4
- Bring instruments into conformity with the approved pattern or the separate directive when warned, since otherwise the Member State may forbid their placing on the market and putting into service, and never use marks or inscriptions liable to be confused with the EC signs or marks; in Denmark a breach of the marking and confusion rules is punishable by a fine. Art. 7(4) and Art. 12; § 11, § 18 and § 24

- When warned, bring instruments into conformity with the approved pattern or the separate directive; otherwise the Member State may forbid their placing on the market and putting into service. Art. 7(4)
- Never use marks or inscriptions liable to be confused with the EC signs or marks; in Denmark a breach of the marking and confusion rules is punishable by a fine. Art. 12; § 11, § 18 and § 24

Authorised representative established in the Community

- Make the application for EC pattern approval in the manufacturer's place only if you are established within the Community, in one Member State only, giving your name and address in the application. Art. 2(4) and Annex I point 1.2(a)
- Send a copy of the application simultaneously to all Member States and draw it up, with the correspondence and where required the annexed documents, in the official language of the Member State applied to. Annex I point 1.1
- Receive the EC pattern approval certificate as applicant and, where the approval is refused, not extended or withdrawn, or verification is refused, expect a reasoned decision with information on the national remedies and their time limits. Art. 4 and Art. 18
- In Denmark, apply to Sikkerhedsstyrelsen for EØF-typegodkendelse with documentation that the instrument meets the legal requirements, and know that decisions may be brought before the agency and that giving incorrect or misleading information in connection with a decision is punishable by a fine. § 1, nr. 2; § 22 and § 24

Importer

- Place on the market only instruments and products whose EC signs or marks were affixed in accordance with the directive and the separate directive concerned; a Member State may not restrict such products, but may act against instruments that do not conform to the approved pattern. Art. 1(3) and Art. 7
- On request, provide the market surveillance authority with documents, technical specifications, data or information on the compliance of the product and with information on the supply chain, the distribution network, the quantities on the market and other models with the same technical characteristics. Art. 14(4), points (a) and (b), and Annex I point 28
- Take the corrective action the authority requires within the period it sets where the product does not conform, which may include bringing it into compliance, preventing it from being made available, or withdrawing or recalling it. Art. 16(1), (2) and (3)
- In Denmark, ensure as erhvervsdrivende that a product you place on the market meets the rules of the product act and the rules made under it, and expect orders to remedy, stop sales, withdraw, recall or destroy a non-compliant product, with fines for failing to give information or access or for disregarding a decision. § 4, nr. 1, § 5, stk. 1, § 14 and § 37

Distributor (wholesaler or retailer)

- Make available only instruments and products bearing EC signs or marks affixed in accordance with the directive and the separate directive concerned, and never affix or tolerate marks or inscriptions liable to be confused with them. Art. 1(3) and Art. 12
- On request, provide the market surveillance authority with the documents and supply-chain information it needs and give it access for on-site inspections and physical checks.

Art. 14(4), points (a), (b), (d) and (e), and Annex I point 28

- Take the corrective action the authority requires within the period it sets, including stopping the making available or withdrawing or recalling the product. Art. 16(2) and Art. 16(3)
- In Denmark, comply with orders and prohibitions of the control authority under the product act, which may be addressed to anyone who has been a link in the sale of a product, and note that disregarding them is punishable by a fine. § 14, § 16 and § 37

Instrument owner or user in legally controlled measurement

- Use an instrument bearing EC signs or marks only within the in-service control requirements, in particular the maximum errors permitted in service, that the separate directive specifies; where none applies, the national rules for comparable instruments serve as the criteria. Art. 15; § 19 and § 20
- Note that the acceptance duty for an instrument bearing the EC initial verification mark lasts until the end of the year following the year in which the mark was affixed unless a separate directive provides longer; after that, the national in-service rules govern. Art. 8(4)
- In Denmark, as instrumentejer ensure that an instrument used for a measurement on which a payment is based meets the product act and the rules made under it, even if you are not an erhvervsdrivende.

§ 4, nr. 2, and § 5, stk. 4

- Expect the control authority to order you to bring a non-compliant instrument used for payment-based measurement into conformity, or to forbid its use for such measurement, and comply with the order.

§ 16 a and § 37, stk. 1, nr. 6

Penalties

The directive contains no penalty article. Its own toolkit is administrative: the Member State that granted an EC pattern approval may withdraw it where the instruments do not conform to the approved pattern or the separate directive, where the metrological requirements of the certificate are not met or where approval was granted improperly, must withdraw it where instruments of the pattern reveal a general defect in service, and may then forbid the placing on the market and putting into service of the instruments until further notice, informing the other Member States and the Commission; the same applies to instruments exempt from EC initial verification whose manufacturer, after due warning, does not bring them into conformity, and Member States must prevent the use of marks liable to be confused with the EC signs or marks. Every refusal, withdrawal or prohibition must state its reasons and be notified with the available remedies and time limits. Since 16 July 2021 the directive is point 28 of Annex I to Regulation (EU) 2019/1020, whose market surveillance authorities can demand documents and supply-chain information, require corrective action within a set period, prevent a product from being made available, or have it withdrawn, recalled or destroyed; the directive is not listed in Annex II of that regulation, so the penalties come from national law. In Denmark, executive order 1139 of 15 December 2003 on EØF-typegodkendelse og -verifikation punishes with a fine the giving of incorrect or misleading information in connection with a decision and breaches of the marking, withdrawal and confusable-mark rules, with liability for companies, and since 1 July 2021 legal metrology falls under the product act (lov om produkter og markedsovervågning, lovbekendtgørelse 22 of 8 January 2026), which supplements Regulation (EU) 2019/1020, lists the directive in section 2, names Erhvervsstyrelsen as the control authority, lets it issue orders and prohibitions, including orders to the owner of an instrument used for payment-based measurement, and punishes with fines those who fail to give information or access or disregard its decisions, the fine rising to imprisonment of up to 2 years under aggravating circumstances because measuring instruments and methods of metrological control are a product area within section 2(1) no 15 (section 37(2)); since January 2026 Sikkerhedsstyrelsen is the department Markedsovervågning of Erhvervsstyrelsen.

Art. 7, Art. 12 and Art. 18; Art. 14, Art. 16, Art. 41, Annex I point 28 and Annex II; § 14, § 18, § 21 and § 24; § 1, § 2, stk. 1, nr. 15, § 9

Checklist

- 1. Identify which EU act governs your instrument: a MID category (Directive 2014/32/EU), a non-automatic weighing instrument (Directive 2014/31/EU), a measuring container bottle or prepackage (Directives 75/107/EEC and 76/211/EEC), or national metrological control only; EC pattern approval and EC initial verification under this directive apply only where a surviving separate directive refers to them (Article 1).
- 2. For MID and NAWI instruments, follow the new-approach conformity assessment and CE marking instead; check that any certificate issued under Directive 2004/22/EC before 20 April 2016 is still valid and that no EC pattern approval sign or verification mark is used on them (Directive 2014/32/EU, Articles 7 and 50).
- 3. For instruments formerly covered by a directive repealed by Directive 2011/17/EU, do not expect new EC pattern approvals; EC pattern approvals and certificates issued until 30 November 2015 under Directives 71/347/EEC, 75/33/EEC, 76/765/EEC and 86/217/EEC remain valid (Article 6(2)), weights conforming to Directives 71/317/EEC and 74/148/EEC could instead be subject to EC initial verification until 30 November 2025 (Article 6(3)), and Directive 76/766/EEC on alcohol tables has no transitional provision (Directive 2011/17/EU, Article 6).
- 4. Where a separate directive requires EC pattern approval, apply in one Member State only, as manufacturer or through a representative established in the Community, with the Annex I point 1 file and copies to all other Member States (Article 2(4), Annex I point 1).
- 5. Keep a register of your EC pattern approvals with their 10-year validity, extensions, additions for modifications and any limitations, and stop affixing a sign whose approval has lapsed except on instruments already in service (Articles 2(5) and 5).
- 6. Affix the correct sign: the stylised epsilon approval sign, the letter P before it for a limited approval, the reversed epsilon where approval is not required and the sign in a hexagon where verification is not required — all of them at a visible point of each instrument, legible and indelible. The final EC initial verification mark, the small e with the hexagon year stamp, is not yours to affix: it goes on under the responsibility of the Member State when the instrument has been completely verified (Articles 4, 6, 10 and 11, Annex I points 3.1 to 3.5, Annex II point 3).
- 7. Never use marks or inscriptions liable to be confused with the EC signs or marks, and check that the marks on measuring container bottles and prepackages follow the forms of Annex I point 3.3 and Annex II section 3 (Article 12; Directive 75/107/EEC Annex I point 5; Directive 76/211/EEC Annex I point 3.3).
- 8. In Denmark, apply to Sikkerhedsstyrelsen (Erhvervsstyrelsen, Markedsovervågning) for EØF-typegodkendelse, use a laboratory it has authorised for EØF-førstegangsverifikation, and keep the in-service tolerances of the general Danish rules for instruments subject to control (executive order 1139 of 2003, §§ 2, 3, 15, 19 and 20).
- 9. Be ready for market surveillance under Regulation (EU) 2019/1020 and the Danish product act: documents, supply-chain information and corrective action on request, orders and prohibitions from the control authority, and fines for non-compliance (Regulation (EU) 2019/1020 Articles 14 and 16; lovbekendtgørelse 22 of 2026 §§ 14, 16, 16 a and 37).

Sources

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