

CERTIFICAT D'EXAMEN UE DE LA CONCEPTION EU DESIGN EXAMINATION CERTIFICATE

N° LNE - 34003 rév. 2 du 02 juillet 2021

Modifie le certificat 34003-1

Délivré par : Laboratoire national de métrologie et d'essais
Issued by

En application : Directive 2014/32/UE, Module H1

In accordance with Directive 2014/32/EU, Module H1

Fabricant : ITRON FRANCE - 9 rue Ampère
Manufacturer FRANCE 71031 MACON

Mandataire :
Authorized

Concernant : Compteur ITRON type P1HR

In respect of Water meter ITRON type P1HR

Caractéristiques : Les principales caractéristiques de la conception approuvée figurent dans l'annexe ci-jointe qui fait
Characteristics partie intégrante du certificat et comprend 5 page(s). Tous les plans, schémas et notices sont déposés au Laboratoire national de métrologie et d'essais sous la référence de dossier P213989 .

The principal characteristics of the approved design are set out in the appendix hereto, which forms part of the approval documents and consists of 5 page(s). All the plans, schematic diagrams and documentations are recorded by Laboratoire national de métrologie et d'essais under reference file P213989 .

Valable jusqu'au : 21 février 2028

Valid until February 21st, 2028

Ce certificat d'examen UE de la conception est établi selon les dispositions de la section 4 du module H1 de la directive 2014/32/UE et n'est valide qu'en complément du certificat d'approbation de système qualité délivré par le LNE conformément aux modalités décrites par le module H1 de la directive 2014/32/UE.

This EU Design-Examination certificate is based on section 4 of module H1 of the directive 2014/32/EU and is only valid in addition to a valid certificate of quality system approval issued by LNE according module H1 of the council directive 2014/32/EU.



Accréditation n°5-0012
Liste des sites accrédités
et portée disponible sur
www.cofrac.fr



Pour le Directeur Général
On behalf of the General Director
Responsable du Département Certification
Instrumentation

Head of the Instrumentation Certification Department

Annex to EU design examination certificate n° LNE-34003 rev.2

The water meter ITRON type P1HR is a volumetric water meter intended for a residential and commercial use. These instruments can be sold with other commercial names and can be different only by the presentation.

Manufacturers

ITRON France

Adress : 9 Rue Ampère - 71000 Mâcon - FRANCE

ITRON Italia

Adress : Strada Valcossera 16 – 14100 Asti - ITALY

Description

The water come inside the water meter through the inlet pipe and then the measuring chamber that upstream and downstream is separated by a piston and a diaphragm. The flow rotates the piston proportionally to the volume.

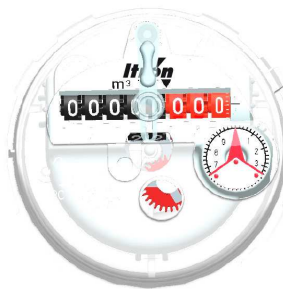
The piston rotates a driving fork on which the lower magnet holder is fixed. Thanks to the magnets, the upper magnet holder rotates synchronized with the lower magnet holder. The gear system allows with a ratio to move rollers and display the volume of water passed inside the water meter.



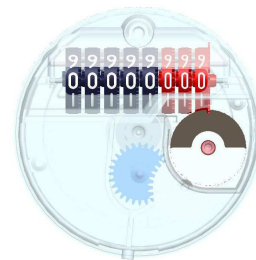
Brass and composite Inline versions - Brass and composite manifold versions



Indicating device TVM



Indicating device TSN



Indicating device CC4



Indicating device TVM 4+4

Indicating devices

Annex to EU design examination certificate n° LNE-34003 rev.2

Characteristics

Indicating device	Plastic (TSN, CC4 or WTR) / Glass & metal (TVM)		
Version	Linear / Manifold		
Cover	Standard / Repairable		
Body	Brass or composite		
Nominal Diameter DN (mm)	DN 15 - Gas ¾" / DN 20 - Gas 1" / Coax 1" ½"		
Q₃ (m³/h) Permanent flowrate	1,0	1,6	2,5
Q₄ (m³/h) Overload flowrate	1,25	2,0	3,125
Q₃/Q₁ * (TSN / TVM)	315	500	800
Q₃/Q₁ * (CC4)	125	200	315
Q₃/Q₁ * (WTR)	63	100	160
Q₂/Q₁	1,6		
Position	All positions		
Pressure loss (bar)	0,1	0,25	0,63
Length	105 ... 190		
Connections	Threads		
Maximum Admissible Pressure (bar)	16		
Water temperature range	+0,1 ... +50°C (TSN / TVM) / +0,1 ... +30°C (CC4 / WTR)		
Indicating range (m³)	99 999 ((5+3) / CC4) – 9 999 (WTR / (TVM 4+4))		
Verification scale interval (dm³)	0,02 (TSN/TVM 5+3) 0,05 (CC4) / 0,1 (WTR) 0,002 (TVM 4+4)		
Cyclical volume (cm³)	33,33		
Climatic environment	-10°C...+70°C		
Mechanical environment	M1		
Electromagnetic influence class	N/A		
Reverse flow measurement(**)	No		

**The water meter is not designed to measure reverse flow but can withstand an accidental reverse flow without any deterioration or change in metrological properties.

*For given nominal flowrate (Q₃) value of ratio (Q₃/Q₁) lower than those listed in the table above are permitted. However, the values of this ratio cannot be below 40.

Interfaces and compatibility conditions

Possible interface with communication modules. This feature is not covered by this certificate.

Particular requirements on production

Not applicable

Particular requirements on putting into use

The clean cold water meter ITRON type P1HR does not require a straight length at the inlet or at the outlet, neither a straightener.

Particular requirements on use

All positions

Particular requirements on inspection

The clean cold water meter ITRON type P1HR must be tested in horizontal position, at a water temperature within 10 °C and 30 °C at the following flowrates with the associated maximum permissible errors :

between Q_1 and $1,1 \times Q_1$: $\pm 5\%$,

between Q_2 and $1,1 \times Q_2$: $\pm 2\%$,

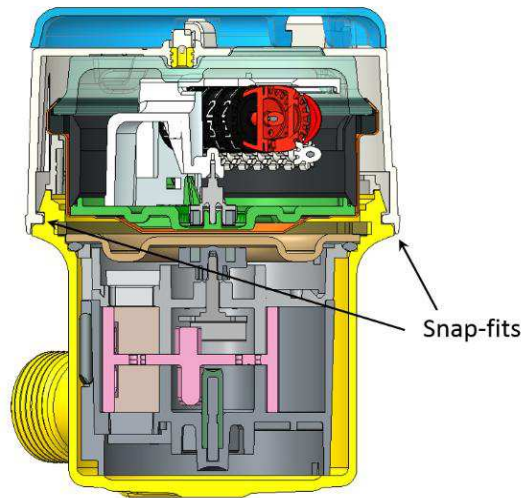
between $0,9 \times Q_3$ and Q_3 : $\pm 2\%$.

The tested flowrates must match the Q_3 , Q_3/Q_1 and Q_2/Q_1 values displayed on the water meter ITRON type P1HR.

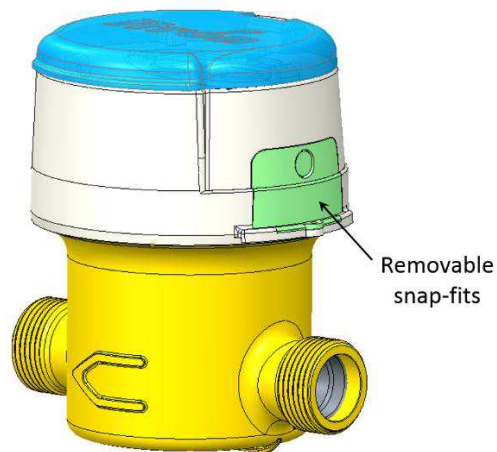
The testing condition shall meet the clauses described in the harmonized standard EN 14154-1:2005+A2:2011 §9.2

If all the errors (of indication) of the water meter have the same sign, at least one of the errors shall not exceed one half of the maximum permissible error.

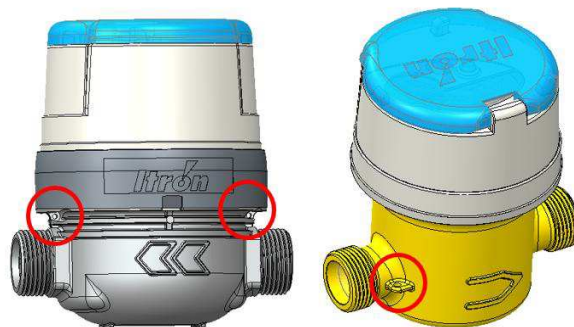
Security and sealing



The cap is fastened by the mean of snap-fits. The cap cannot be removed without being damaged.

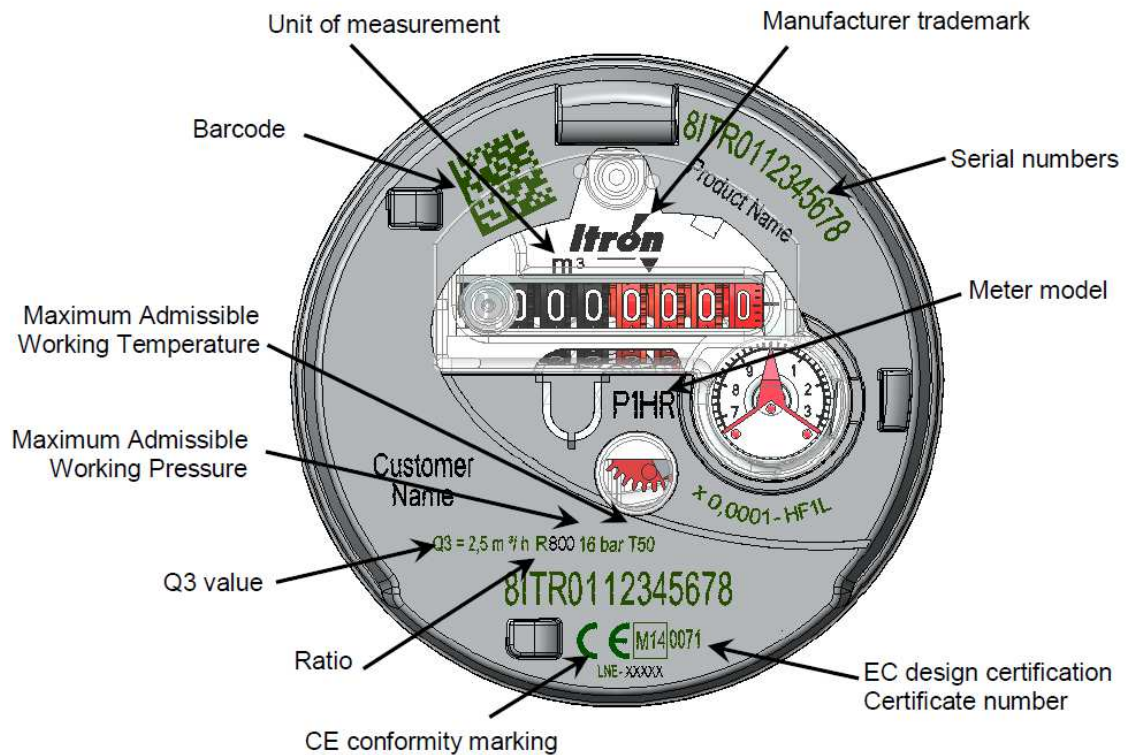


For the reparable version, the cap has got a removable snap-fit in order to prohibit disassembly. The removable snap-fit is broken when the cap is removed.



An optional sealing can be done with a lead and wire through holes on the bodies

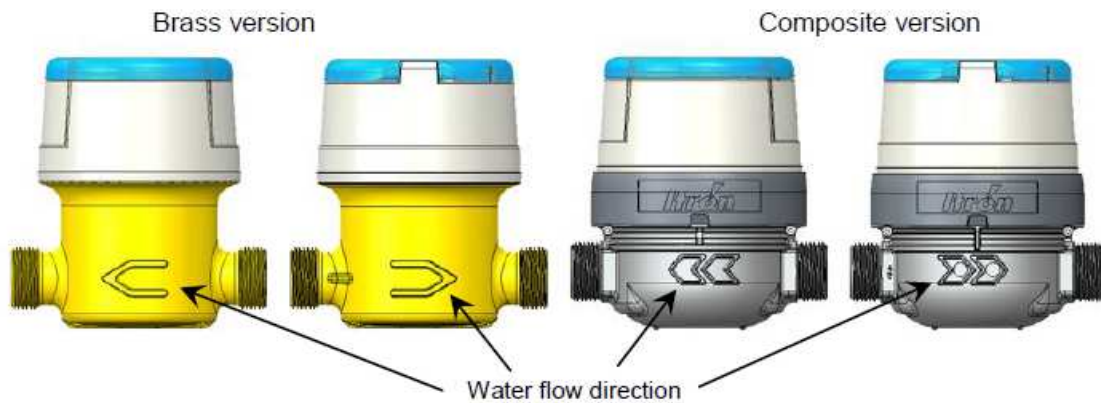
Markings



Example of marking

In some product version, marking surface is not sufficient to assure good readability. In this exceptional case, the address of the manufacturer may be moved from the product and affixed on the packaging

Arrows located on both sides indicate flow direction :



Revision summary

Revision 0	22/02/2018	Initial certification
Revision 1	07/03/2018	Editorial modification on characteristics table line 10
Revision 2	02/07/2021	Add of ITRON Italia in the manufacturers list