



Via della Boaria, 40 - 48018 Faenza - Tel 0546/621002

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Calibration certificate 21113980

Certificate

Pages: 1

Date of release: 03/1/2021

Consignee:

Request:

Date of request:

Date of putting into service:

(to be filled in by the final customer)

Next calibration date:

(to be filled in by the final customer)

Subject:

Manufacturer: HT ITALIA

Type: GroundTest

Model: M71

Serial no.: 21113980

Accuracy class: See instruction manual

Instrument specifications: See instruction manual

The test results reported in the calibration certificate of the instrument under reference were obtained using samples and measuring instruments whose traceability dates back to the standard instrument provided with calibration certificate as below indicated:

Standard instrument	Calibration certificate
Wv 9100	ACCREDIA 8998 08/02/2021

Tests were carried out at the room temperature of $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ with relative humidity of $60\% \pm 10\%$.

Tests were carried out according to IOP_13500calibration.

In view of the whole chain of traceability the symmetrical uncertainties more and less, referred to the numerical values reported in the certificate, are the following:

For AC voltage:	0.020%
For DC voltage:	0.009%
For AC current:	0.16%
For DC current:	0.16%
For resistance:	0.010%
For reference conditions:	
Frequency:	0.5%
For room humidity:	2.5%
For room temperature:	1K

Result table

Ref	Set function	Input value	Lower limit	Read value	Upper limit	Tolerance
1	Outlook, BAT indication, keys			OK ✓		
2	Mode 3P	0.10 Ω	0.07 Ω	0.10	0.13 Ω	0.03 Ω
		1.00 Ω	0.95 Ω	1.00	1.05 Ω	0.05 Ω
		4.70 Ω	4.58 Ω	4.70	4.82 Ω	0.12 Ω
		220 Ω	213 Ω	220	227 Ω	7 Ω
		1500 Ω	1467 Ω	1500	1533 Ω	33 Ω
		47 k Ω	45.3 k Ω	46.9 k	48.7 k Ω	1.7 k Ω
Test voltage @ Ubat = 6V < 25V on 1000 Ω						
				OK ✓		
3	Voltage	0 V	0 V	0	2 V	2 V
		230 V	224 V	230	236 V	6 V

This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

The Responsible

Petri Pier Vittorio

The Verifier

Quartrone Claudio



Faenza, Fecha del certificado

Caducidad del certificado de calibración



Gentil Cliente,

El certificado de calibración emitido por HT ITALIA no incluye la fecha de caducidad, por tanto, según lo especificado por las normativas, sólo el usuario del instrumento es responsable de su caducidad.

Le recordamos también que, como exige las normas sobre laboratorios, el certificado para que sea considerado válido, es **INDISPENSABLE** que el campo valido esté correctamente rellenado.

HT ITALIA aconseja, para mantener el instrumento en plena eficiencia, un periodo de validez del certificado no superior a 12 meses de la fecha de compra.

A su Disposición para cualquier eventual sugerencia que considere oportuna.

Atentamente



Servicio Técnico

Betr.: Gültigkeit des Kalibrierprotokolls

Sehr geehrter Kunde,



das beiliegende Kalibrierzertifikat gibt die Dauer der Gültigkeit nicht an, da entsprechend den Vorschriften der Besitzer des Messgerätes für die Wahl und Einhaltung des Kalibrierintervalls verantwortlich ist.

Wir weisen darauf hin, dass das Kalibrierzertifikat nur gültig ist wenn Sie eine Gültigkeitsdauer angeben.

HT Instruments empfiehlt einen Gültigkeitszeitraum von 12 Monaten ab Kaufdatum, bzw. ab dem ersten Einsatz des Messgerätes, um die Leistungsfähigkeit und Genauigkeit des hochwertigen Messgerätes sicherzustellen.

Gerne stehen wir Ihnen für weitere Informationen zur Verfügung

Mit freundlichen Grüßen



HT INSTRUMENTS



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<http://www.ht-instruments.com> Capitale sociale EUR 50 060 000 - n. Reg. Imp. RA 014 8384 C.F. e P.IVA
00855260394 n. Mecc. RA 00132



CERTIFICATO DI TARATURA LAT121 8998
Certificate of Calibration

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- Data di emissione 2021-02-08
date of issue

- cliente HT ITALIA S.r.l.
customer Via DELLA BOARIA, 40
FAENZA

- Destinatario HT ITALIA S.r.l.
receiver Via DELLA BOARIA, 40
FAENZA

Si riferisce a:
referring to **Calibratore**

- Oggetto
item

-costruttore Wavetek
manufacturer

- Modello 9100
model

- Matricola 893550705
serial number LAB210

- Data di ricevimento oggetto 2021-01-11
date of receipt of item

- Data delle misure Dal: 2021-02-04 al 2021-02-08
date of measurement

- Registro di laboratori 9648
laboratory reference

RA

Il presente certificato di taratura è emesso in base all'accreditamento LAT N° 121 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI). Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

This certificate of calibration is issued in compliance with the accreditation LAT N° 121 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, the metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI). This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore k vale 2.

The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.

Firmato digitalmente da: pollio carmello
Motivo: Certificato di taratura
Data: 08/02/2023-09:31:49

P. J. CARMELO POLLIO



Signatories to the ILAC Mutual Recognition Arrangement

Acronym	Accreditation Body	Economy	Scope	Original Signing Date
ACCREDIA	ACCREDIA - (I)QWH.WDOLDQo di Accreditamento Tel: +39 06 844099.1 Fax: +39 06 8841199 Email: info@accredia.it Website: http://www.accredia.it	ITALY	Calibration: ISO/IEC 17025	2010-10-07
			Inspection: ISO/IEC 17020	2012-11-07
			Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
DAkS	Deutsche Akkreditierungsstelle GmbH	GERMANY	Calibration: ISO/IEC 17025	2000-11-02
			Inspection: ISO/IEC 17020	2012-10-24
			Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
DANAK	Danish Accreditation Fund Tel: +45 7733 9536 Fax: +45 7733 9501 Email: DENMARK va@danak.dk Website: http://www.danak.org	DENMARK	Calibration: ISO/IEC 17025	2000-11-02
			Inspection: ISO/IEC 17020	2012-10-24
			Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
ENAC	Entidad Nacional de Acreditacion Tel: +34 91 457 3289 Fax: +34 91 458 6280 Email: enac@enac.es Website: http://www.enac.es	SPAIN	Calibration: ISO/IEC 17025	2000-11-02
			Inspection: ISO/IEC 17020	2012-10-24
			Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
SA	Slovenian Accreditation Tel: +386 1 547 3250 Fax: +386 1 547 3272 Email: bostjan.godec@slo-akreditacija.si, Primoz.simon@slo-akreditacija.si Website: http://www.slo-akreditacija.si	SLOVENIA	Calibration: ISO/IEC 17025	2003-11-28
			Inspection: ISO/IEC 17020	2012-10-24
			Testing: ISO/IEC 17025	2003-11-28
			Calibration: ISO/IEC 17025	2000-11-02
CNAS	China National Accreditation Service for Conformity Assessment Tel: +86 10 67105333 Fax: +86 10 87928667 Email: info@cnas.org.cn Website: http://www.cnas.org.cn	Peoples Republic of CHINA	Inspection: ISO/IEC 17020	2012-10-24
			Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
			Calibration: ISO/IEC 17025	2005-05-09
IAS	International Accreditation Service, Inc	UNITED STATES OF AMERICA	Inspection: ISO/IEC 17020	2012-11-05
			Testing: ISO/IEC 17025	2000-11-02
			Calibration: ISO/IEC 17025	2000-11-02
			Inspection: ISO/IEC 17020	2012-10-24
A2LA	American Association for Laboratory Accreditation	UNITED STATES OF AMERICA	Medical Testing: ISO 15189	2000-11-02
			Testing: ISO/IEC 17025	2000-11-02
			Testing: ISO/IEC 17025	2010-08-22
			Testing: ISO/IEC 17025	2010-08-22
AIHA-LAP, LLC	AIHA Laboratory Accreditation Programs, LLC Tel: +1 703 846 0789 Fax: +1 703 207 8558 Email: cmorton@aiha.org Website: http://www.aihaaccreditedlabs.org	UNITED STATES OF AMERICA		