

CERTIFICADO DE CALIBRACIÓN / *CALIBRATION CERTIFICATE*

INNOVATECIS CIA LTDA

General José María Guerrero N69-170 y Alfonso del Hierro

Quito, Ecuador

(+593) 02 6040 607

innovatec@innovatec.com.ec

Certificado No. (Certificate #): 60392

Fecha de Recepción (Reception Date): 2025-08-22

Fecha de Calibración (Calibration Date): 2025-09-01

Próxima Fecha de Calibración (Calibration Due): 2026-09-01

Fecha de Emisión (Emission Date): 2025-09-01

Cliente (Client): AVIANCA - ECUADOR S.A.  
Luis Tamayo N24-33 Y Baquerizo Moreno

## Información del Instrumento (Instrument Information)

|                      |                 |                                       |                   |                                              |                                   |
|----------------------|-----------------|---------------------------------------|-------------------|----------------------------------------------|-----------------------------------|
| Equipo (Instrument): | Juego de Galgas | Int. de Medición: (Measurement Range) | 0.0020 a 0.035 in | Ubicación (Location):                        | *****                             |
| Marca (Brand):       | *****           |                                       |                   | Lugar de Calibración (Place of Calibration): | Lab. Innovatec / Innovatec's Lab. |
| Modelo (Model):      | *****           | Serie:                                | 0019-GLG          |                                              |                                   |

## Datos de Calibración (Calibration Info)

Procedimiento (Procedure): INN-PC-34

## Condiciones Ambientales (Environmental Conditions)

Temperatura (Temp): (19.7 °C a 19.7 °C)

Humedad (Humidity): (61.1 %HR a 60.2 %HR)

## Trazabilidad (Traceability Info)

| Patrón (Standard) | Marca (Brand) | Cert. # | Última Calibración (Last Cal.) | Período (Period) |
|-------------------|---------------|---------|--------------------------------|------------------|
| Micrómetro        | Pantec        | 38837   | 2023-11-26                     | 2 años           |
| Pie de Rey        | Starret       | 38838   | 2023-11-26                     | 2 años           |

## Resultados (Results)

Ver resultados en Hoja adjuntada

See results on attached sheet

El presente Certificado de Calibración posee la trazabilidad en esta magnitud hacia el Patrón Nacional, a través de la realización de la unidad de medida en el NPL, NIST, u otro Laboratorio Nacional reconocido al Sistema Internacional de Medidas. La calibración fue realizada bajo un Sistema de Gestión de Laboratorio conforme a la Norma ISO/IEC 17025:2017. Los resultados y su incertidumbre reportada con un nivel de confianza de K=2, 95% son relacionados a este instrumento y en el tiempo que se realizó las medidas. Este Laboratorio no se responsabiliza de los perjuicios que pueda ocasionar el uso inadecuado del instrumento calibrado. La reproducción parcial es prohibida, la reproducción total deberá hacerse con la autorización escrita aprobada por INNOVATEC Industrial Solutions. This Certificate of Calibration provides traceability of measurement to the National Standard, through units of measurement realized at the NPL, NIST or other recognized National Standard Laboratories to the International System of Units. The calibration was performed under a Laboratory Management System in accordance with the ISO/IEC 17025:2017 Standard. The results and the reported uncertainty at a confidence level of K=2, 95% are related only to this instrument and at the time of measurement. This Laboratory is not responsible for any damages that may result from improper use of the calibrated instrument. Partial reproduction is forbidden, the total reproduction must have an approved written authorization by INNOVATEC Industrial Solutions.

Comentarios: PartNumber: 950-251  
As Received Condition: In Tolerance with MFG Specifications.  
Incoming Condition: Good Condition.  
As Left Condition: In Tolerance with MFG Specifications.  
""In Tolerance"" condition is based on a Simple Decision Rule and does not take into account Uncertainty Evaluation.  
Las galgas se encuentran con mucho óxido por lo que los valores medidos presentan un error.

Calibrado por:  
Calibrated by: Jonathan Fonseca

Aprobado por:  
Approved by:

Fin de Certificado (End of Certificate)

Certificado No.: 60392  
Fecha de Calibración: 2025-09-01

Equipo (Instrument): Juego de Galgas  
Marca (Brand): \*\*\*\*\*

| Identificación<br>(Identification) |           | Patrón (Standard) | UBP (UUT) | Error (Error) | Incertidumbre (Uncertainty) |
|------------------------------------|-----------|-------------------|-----------|---------------|-----------------------------|
| Galga                              | 0.002 in  | 0.002 in          | 0.0019 in | -0.0001 in    | ± 0.00058 in                |
| Galga                              | 0.0025 in | 0.0025 in         | 0.0024 in | -0.0001 in    | ± 0.00058 in                |
| Galga                              | 0.003 in  | 0.003 in          | 0.0028 in | -0.0002 in    | ± 0.00058 in                |
| Galga                              | 0.004 in  | 0.004 in          | 0.0042 in | 0.0002 in     | ± 0.00058 in                |
| Galga                              | 0.005 in  | 0.005 in          | 0.0057 in | 0.0007 in     | ± 0.00058 in                |
| Galga                              | 0.006 in  | 0.006 in          | 0.0061 in | 0.0001 in     | ± 0.00058 in                |
| Galga                              | 0.007 in  | 0.007 in          | 0.0073 in | 0.0003 in     | ± 0.00058 in                |
| Galga                              | 0.008 in  | 0.008 in          | 0.0081 in | 0.0001 in     | ± 0.00058 in                |
| Galga                              | 0.009 in  | 0.009 in          | 0.0103 in | 0.0013 in     | ± 0.00058 in                |
| Galga                              | 0.01 in   | 0.01 in           | 0.0106 in | 0.0006 in     | ± 0.00058 in                |
| Galga                              | 0.01 in   | 0.01 in           | 0.01 in   | 0.0000 in     | ± 0.00058 in                |
| Galga                              | 0.011 in  | 0.011 in          | 0.0114 in | 0.0004 in     | ± 0.00058 in                |
| Galga                              | 0.012 in  | 0.012 in          | 0.0121 in | 0.0001 in     | ± 0.00058 in                |
| Galga                              | 0.013 in  | 0.013 in          | 0.0133 in | 0.0003 in     | ± 0.00058 in                |
| Galga                              | 0.014 in  | 0.014 in          | 0.0139 in | -0.0001 in    | ± 0.00058 in                |
| Galga                              | 0.015 in  | 0.015 in          | 0.015 in  | 0.0000 in     | ± 0.00058 in                |
| Galga                              | 0.016 in  | 0.016 in          | 0.016 in  | 0.0000 in     | ± 0.00058 in                |
| Galga                              | 0.017 in  | 0.017 in          | 0.017 in  | 0.0000 in     | ± 0.00058 in                |
| Galga                              | 0.018 in  | 0.018 in          | 0.0186 in | 0.0006 in     | ± 0.00058 in                |
| Galga                              | 0.019 in  | 0.019 in          | 0.0196 in | 0.0006 in     | ± 0.00058 in                |
| Galga                              | 0.02 in   | 0.02 in           | 0.0196 in | -0.0004 in    | ± 0.00058 in                |
| Galga                              | 0.021 in  | 0.021 in          | 0.0213 in | 0.0003 in     | ± 0.00058 in                |
| Galga                              | 0.022 in  | 0.022 in          | 0.0222 in | 0.0002 in     | ± 0.00058 in                |
| Galga                              | 0.023 in  | 0.023 in          | 0.0228 in | -0.0002 in    | ± 0.00058 in                |
| Galga                              | 0.024 in  | 0.024 in          | 0.0242 in | 0.0002 in     | ± 0.00058 in                |
| Galga                              | 0.025 in  | 0.025 in          | 0.0254 in | 0.0004 in     | ± 0.00058 in                |
| Galga                              | 0.026 in  | 0.026 in          | 0.0261 in | 0.0001 in     | ± 0.00058 in                |
| Galga                              | 0.028 in  | 0.028 in          | 0.0279 in | -0.0001 in    | ± 0.00058 in                |
| Galga                              | 0.03 in   | 0.03 in           | 0.0301 in | 0.0001 in     | ± 0.00058 in                |
| Galga                              | 0.032 in  | 0.032 in          | 0.0319 in | -0.0001 in    | ± 0.00058 in                |
| Galga                              | 0.035 in  | 0.035 in          | 0.0352 in | 0.0002 in     | ± 0.00058 in                |
| -                                  | -         | -                 | -         | -             | -                           |
| -                                  | -         | -                 | -         | -             | -                           |
| -                                  | -         | -                 | -         | -             | -                           |
| -                                  | -         | -                 | -         | -             | -                           |