# CONSIGNES

L'utilisation du dictionnaire bilingue est autorisée
à l'exception des traducteurs électroniques

Lire attentivement tout le document :

## "Digihelic Differential Pressure Controller"

***Le candidat répondra directement sur les feuilles.***

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|---|---|
| BEP Maintenance des Équipements de Commande des Systèmes Industriels | N° d'anonymat |
| Épreuve → Anglais — Feuille 1/6 | |

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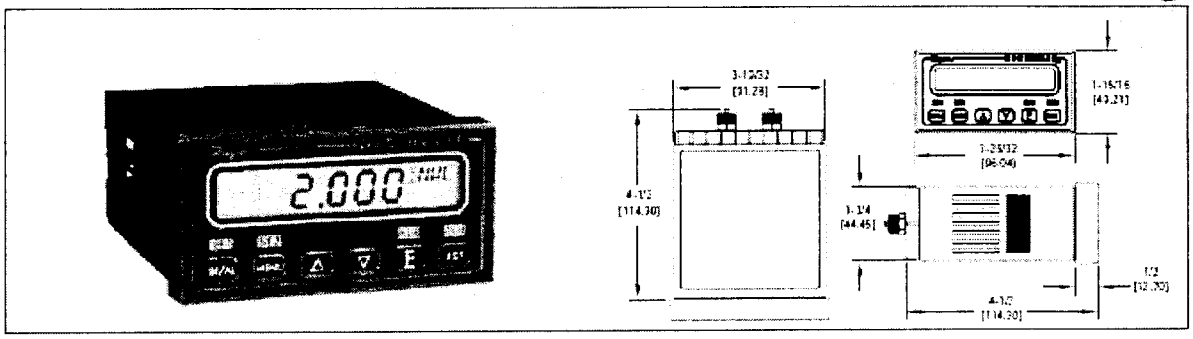
|---|---|---|---|
| ***Pilotage national*** | **Sujet** | **Session 2008** | N° d'anonymat : |
| Examen et spécialité : BEP Maintenance des Équipements de Commande des Systèmes Industriels | | | |
| Intitulé de l'épreuve → Anglais | | | Facultatif : date et heure |
| **Nom et prénom** : .....<br>**Date de naissance** : ..... | Durée : 1 h 30 | Coefficient : 2 | Feuille 1/6 |

Series DH

# Digihelic® Differential Pressure Controller

## 3-in-1 Instrument: Gage, Switch and Transmitter




**The Series DH Digihelic® Differential Pressure Controller** is a 3-in-1 instrument possessing a digital display gage, control relay switches and a transmitter with current output. Combining these three features allows the reduction of several instruments with one product, saving inventory, installation time and money. The Digihelic® controller is the ideal instrument for pressure, velocity and flow applications, achieving a 0,5% full scale accuracy on ranges from 5 to 100 in. w.c.

The Digihelic® controller allows the selection of pressure, velocity or volumetric flow operation in several commonly used engineering units. Two SPDT control relays with adjustable dead bands are provided along with a scalable 4-20 mA process output. The Series DH provides extreme flexibility in power usage by allowing 120/220 VAC and also 24 VDC power which is often used in control panels.

Programming is easy using the menu key to access five simplified menus which provide access to: security level; selection of pressure, velocity or flow operation; selection of engineering units; K-factor for use with flow sensors; rectangular or circular duct for inputting area in flow applications; set point control or set point and alarm operation; alarm operation as a high, low or high/low alarm; automatic or manual alarm reset; alarm delay; view peak and valley process readings; digital dampening for smoothing erratic process applications; scaling the 4-20 mA process output to fit your application's range; Modbus® communications; and field calibration.

With all this packed into one product it is easy to see why the Digihelic® controller is the only instrument you will need for all your pressure applications.

## APPLICATIONS

- Dust Collection Bag Filters
- SCFM Flow in Ducts
- Air Flow for Industrial Ovens
- Filter Status
- Clean Room Pressure
- Fume Hood Air Flow
- Pharmaceutical or Bio-Medical Glove Box Pressures
- Static Pressures in Ducts or Buildings
- Damper Control
- Fan Control

# One Control for all your Pressure Applications

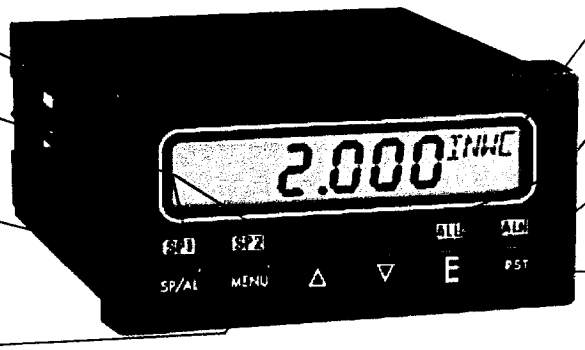
## Reduces Instruments, Inventory, Installation Time and Cost

**Compact** 1/8 DIN housing reduces panel space.

**Set Point** Status LED Indicators display set point activation. Allows user to view process status from a distance.

**"Hot Key"** saves time by allowing instant access to set point and alarms. Set points/alarms can be easily adjusted with arrow keys.

**Menu Key** Scrolls through menus to adjust settings. 5 simple menus allow for quick set-up and reduced installation time.




**Selectable** Engineering Units in Pressure, Velocity or Flow, programmed on one unit. Alleviates time consuming conversions and flow charts

**Alarm** LED Indicator shows alarm activation status. View alarm status from a distance.

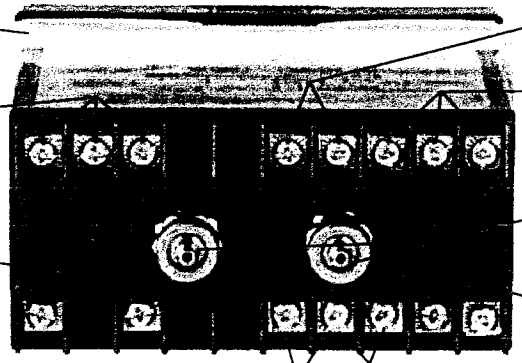
**Reset button** for clearing an alarm when alarm is set for manual operation.

**Enter** a menu or store a value. From home display press to view full scale range.

**Adjustable clip** for panel mounting

**Set point 2** or alarm output (SPDT). Selectable direct acting control relay with adjustable deadband or high, low or high low alarm.

**4-20 mA** process output. View process remotely or send signal to PLC. Alleviates purchase of a separate transmitter.



**120-240 VAC** power supply. Reduce inventory and eliminate lead times with universal power supply.

**Set point 1** output (SPDT). Direct or reverse acting control relay with adjustable deadband.

**Durable compression fittings** for 1/4" O.D. x 1/8" I.D. plastic tubing. Secures tubing in harsh applications where vibration & temperature fluctuations occur.

**RS-485** serial communications View, record, and adjust control settings remotely from a computer with Modbus® protocol.

**24 VDC** power supply. Universal power supply eliminates options, inventory and ordering mistakes.

**Remote reset switch** for alarm. Acknowledge alarm from remote location. For users that need quick alarm reset from a distance.

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## TRAVAIL À FAIRE PAR LE CANDIDAT

**A - Faites un compte-rendu du document en FRANÇAIS en vous aidant des questions suivantes. (11 points)**

**1°** Quels sont les trois composants de l'appareil et leurs caractéristiques respectives ? (3 points)

- .....
- .....
- .....

**2°** Quel avantage présente son alimentation ? (1 point)

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**3°** Quelles sont les possibilités offertes concernant le réglage de l'alarme ? (1,5 points)

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Ne rien inscrire dans cette partie

**4°** Citez 5 exemples de domaines d'application de cet appareil. (2,5 points)

- .....
- .....
- .....
- .....
- .....

**5°** Quelle touche permet d'accéder directement au réglage des points de consigne et alarmes ? (1 point)

.....

**6°** Quelle touche permet la remise à zéro lorsqu'une alarme est réglée manuellement ? (1 point)

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**7°** Les raccords à compression sont-ils sûrs ? Pourquoi ? (1 point)

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Ne rien inscrire dans cette partie

**B - Traduisez en FRANÇAIS le premier paragraphe du texte (Document page 1/2).(5 points)**

(from "*The Series DH Digihelic Differential Pressure Controller…*" to "*… on ranges from 5 to 100 in. w.c.*").

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**C - Répondez en ANGLAIS aux questions suivantes en faisant des phrases complètes. (4 points)**

**1°** Why is programming easy? (2 points)

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**2°** How can you see when the alarm is activated? (1 point)

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**3°** What do you need to connect a computer to the pressure controller? (1 point)

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Ne rien inscrire dans cette partie