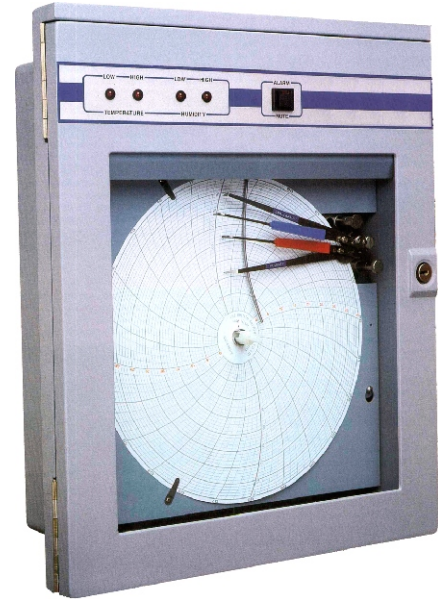




## ***SERIES: 80H***

- **HUMIDITY AND/OR TEMPERATURE INPUTS**
- **± 1% ACCURACY TEMP. MEASUREMENT**
- **± 2% ACCURACY RH MEASUREMENT**
- **AMBIENT OR REMOTE SAMPLING**
- **ELECTRICAL ALARM CONTROL (OPTION)**
- **AUDIBLE ALARM INDICATION (OPTION)**
- **MULTI-SPEED CHART ROTATION (OPTION)**
- **ALL MECHANICAL VERSION AVAILABLE**
- **PANEL OR SURFACE MOUNTING**
- **SIMPLE INSTALLATION & MAINTENANCE**



### **INTRODUCTION**

The *80H Series* Humidity and/or Temperature Circular Chart Recorders with optional electrical alarm control uses bimetallic coil and hygroscopic membrane for direct measurements of relative humidity and temperature.

The single-pen version of *80H Series* can be utilized for monitoring temperature or relative humidity only, and the two-pen version is used for recording both variables. The instrument may be a sole recorder or a recording controller fitted with four independent alarm contacts adjustable over the full chart. High and low alarm points for temperature and humidity are indicated by illumination of red LEDs. A further option on these recording controllers is the availability of an audible alarm indication of set point on the instrument that can be silenced by a mute button.

Each instrument can be supplied for either of two modes of sampling. The most commonly used one is the ambient sampling mode for monitoring the atmosphere adjacent to the recorder. In this design, air is drawn through the instrument and

over the two sensing elements by an electrically driven fan.

The other is remote sampling mode, where a continuous sample is extracted (e.g. through the wall of a room, or a chamber) and passes through the *80H* recorder. Options are available to return the sample back to the environment from which it was extracted, or to atmosphere surrounding the recorder.

Disposable fiber-tipped pens in two different colours are fitted to the pen arms and charts are supplied with minimum values of temperature and humidity at the centre. Standard chart durations are one revolution every 24 hours or 7 days. User selectable multi-speed chart drive is also available.

An all mechanical version is available for ambient recording. In this model of the *80H Series* recorders, temperature and humidity elements are mounted outside the case, and the chart drive utilizes a mechanical springwound motor.

## SPECIFICATIONS

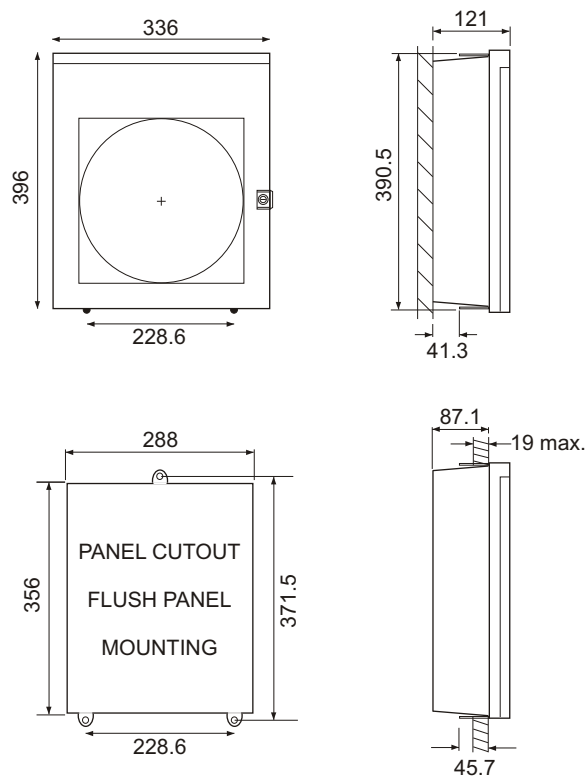
### Accuracy:

**Temperature** ±1% f.s.  
**Humidity** ±2% within the limits 30 to 85% RH and 1°C to 40°C

**Temp. Element** Bi-metal coil  
**Humidity Element** Hygroscopic membrane  
**Temperature Range** 0...40°C or 20...100°F  
**Humidity Range** 20...100% RH  
**Case** Glass filled polyester resin  
**Window** Acrylic  
**Chart** Round, 240 mm (9.5 inch) dia.; Electrical motor; 24 hr or 7 day rotation, multi-speed option for 1, 2, 3, 4, 6, 8, 12, 24 hr; 7 or 28 days  
**Pen** Disposable fiber-tipped; 1st pen: Red; 2nd pen: Blue

**Sampling Tube** 1 m max.; 20 mm outside dia.  
**Power Supply** 110 or 220 VAC, 50 or 60 Hz  
**Power Required** 20 VA  
**Electrical Insulation** 2 kV, contact to earth  
**No. of Relays** Up to 4  
**Switched Voltage** 30 VDC or 277 VAC maximum  
**Switched Current** 10 A maximum  
**Switched Load** 150 W or 1660 VA maximum  
**Ambient Mounting** Wall or flush panel  
**Remote Mounting** Wall  
**Storage Temp. Limit:**  
**Temp. Instrument** -10...+50°C  
**Temp. & RH Unit** 0...40°C  
**Storage RH Limit:**  
**Temp. Instrument** 0...90% RH  
**Temp. & RH Unit** 20...85% RH  
**Weight** 6.5 kg approximately

## DIMENSIONS AND FIXING (mm)



## ORDER CODE

### Model 80H

#### MEASURED VARIABLE

Relative Humidity Only  
 RH & Temperature  
 Temperature Only

1  
 2  
 3

#### CONTROL & AUDIBLE ALARM

No Alarm (Recorder Only)  
 Recorder Controller

R  
 C

#### CHART DRIVE

24 Hour  
 7 Day  
 Multi-speed

1  
 2  
 3

#### SAMPLING

Ambient  
 Remote  
 Remote & Re-entry

A  
 B  
 C

#### POWER SUPPLY

110 Volts 50 or 60 Hz  
 220 Volts 50 or 60 Hz

1  
 2

**Sample Order:**  
**80H2R1A1**

## ALSO AVAILABLE FROM INDUMART

ELECTRONIC & PNEUMATIC CHART RECORDERS  
 PNEUMATIC CONTROLLERS OR TRANSMITTERS  
 BARGRAPH & DIGITAL INDICATORS  
 SMART & UNIVERSAL TEMPERATURE TRANSMITTERS  
 RTDs & THERMOCOUPLES WITH COMPLETE ASSEMBLIES

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