
GNW LTD

GNWTH TEMPERATURE/HUMIDITY RECORDER

The GNWTH Temperature /Humidity Recorders use the proven design combination of metallic coils and hygroscopic membrane for the direct measurement of temperature and humidity.

Changes in atmospheric temperature and humidity are detected by the two elements within the recorder. The thermal system monitors the temperature and the hygroscopic element the humidity.

The thermal system detects temperature change, which causes pen movement by direct linkage. Similarly a change in humidity causes extension or contraction of the hygroscopic membrane and the direct linkage causes movement of the second pen.

Fitted to the pen arms are disposable fibre tipped pens which are readily replaceable without mess. Each of the pens traces in a different colour for ease of recognition.



DESCRIPTION

CASE: Sealed IP45

MOUNTING: Wall or flush panel

CLOCK MECHANISM: Very accurate spring wound and electrical drive

CHART: Circular

PEN: Long lasting cartridge pen.

CONNECTION OF MEASURING ELEMENT: (BULB)

STANDARD SUPPLY: Charts 100 linear, one spare pen and with box pen one ink bottle for each measuring element.

WEIGHT: 10.3kg approx.

MEASURING ELEMENT

MAX ALLOWABLE

| | |
|---------------------------------|--|
| OVERRANGE: | 20% of span |
| ACCURACY: | ±1% of span |
| SENSIBILITY (dead zone): | 0.15% of span |
| REPEATABILITY: | 0.2% of span |
| AMBIENT TEMP LIMITS: | -10/+60°C |
| AMBIENT TEMP EFFECT: | 0.5-1% of span per 20°C |
| SPEED OF RESPONSE (63%): | in agitated water 4-6 secs in agitated air from 20-40 secs. |

Measuring element filled

Standard ranges:

Sensitivity hygroscopic membrane with bimetallic or filled system for temperature measurement, or wet and dry bulb fluid expansion thermometers

20/100% RH (hygroscopic membrane): 0/40°C or

20/100°F

0/40°C

20/85%RH



GNW LTD

www.GNW.Co.UK

ACCREDITED TO BS EN ISO 9002:1994

UNIT 1 OLD HALL FARM BUSINESS PARK

CROWLAND STREET SOUTHPORT PR9 7RJ

TEL:01704 536010 FAX:01704 548028 Email: SALES@GNW.CO.UK

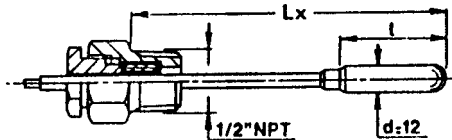
GNWTP1 TEMPERATURE/HUMIDITY RECORDER CONT'D

MODELS

| Model | Measuring Element 1 (pen 1) | Measuring Element 2 (pen 2) |
|--------|--------------------------------|--------------------------------|
| GNW1T | Humidity | - |
| GNW2T | Temperature | Humidity |
| GNW2TP | Temperature | Wet Temperature |

CAPILLARY TUBING: AISI 316 stainless steel encased steel flexible protective armour 3m or 6m long.

BULB G: AISI 316 stainless steel with semi-bendable extension and adjustable threaded union. Suitable for thermowell or direct insertion (pressure rating 16 bar)



Lx (max) = 300 mm

Lx (min) = t + 30 mm

Measuring element filled

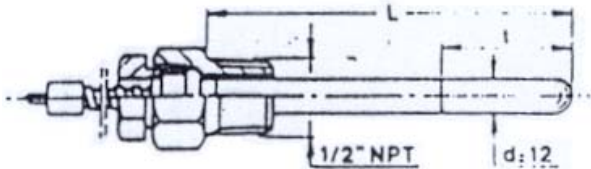
Standard ranges:

| | | | | | | | | |
|--------|----|-----|-----|-----|-----|-----|-----|----|
| Spanst | 40 | 60 | 100 | 160 | 200 | 300 | 400 | |
| L (mm) | | 200 | 160 | 95 | 65 | 55 | 100 | 75 |

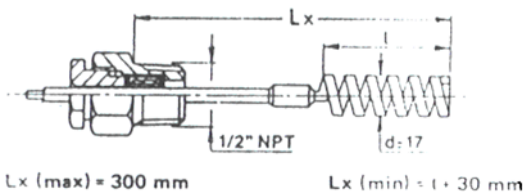
EXTRA FEATURES

OPTIONAL BULBS:-

C: Plain bulb with rigid extension, fixed threaded connection. Suitable for direct immersion (pressure rating 25 bar) or for thermowell – L = 200mm



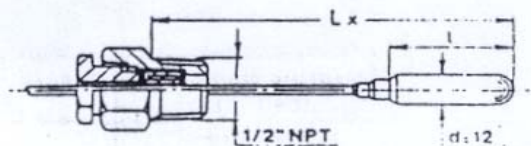
F: Plain bulb for air or gas with semi bendable extension and adjustable threaded union. Suitable for direct immersion in air or gas (pressure rating 16 bar) Max 200°C – Lx = 300mm



Lx (max) = 300 mm

Lx (min) = t + 30 mm

E: plain bulb, pressure tight adjustable connection. For use with thermowell. The type E bulb is supplied with AISI 316 stainless steel plain tubing (not armoured) 6m (20ft) length.



Lx (min) = t + 30 mm



GNW LTD

ACCREDITED TO BS EN ISO 9002:1994
www.GNW.Co.UK

UNIT 1 OLD HALL FARM BUSINESS PARK
CROWLAND STREET SOUTHPORT PR9 7RJ
TEL:01704 536010 FAX:01704 548028 Email: SALES@GNW.CO.UK

GNWTP1 TEMPERATURE/HUMIDITY RECORDER CONT'D

SPECIAL SCALE: GNW recorders are available with specific ranges on request .

CASE lock with key.

ALARM CONTACT: Models can be supplied with a unit of 2 electric contacts in air adjustable from 0 to 100% of scale range. Electric contacts are magnetic type SPST of minimum and maximum on closure with common terminal. Load 10 VA – insulation 2000V.

CLOCK ELECTRICALLY ACTIVATED: Supply 24/48 V 50HZ: 220V 50Hz 24 V 60HZ

CLOCK & CHART SPECIAL ROTATION: 1 turn per hour , 4 hours, 6 hours, 12 hours and 168 hours.

SUPPLEMENTARY SEGMENTAL INDICATING SCALE: in Plexiglas with black graduation

CARTRIDGE PEN: Duration 100m of writing.

ACCESSORIES

Bulb adaptors or G-C bulbs the standard connection threaded 1/2" NPT male can be changed with one of the following: 1/2 Gas male 3/4 Gas male, 3/4" NPT male, 3/4 Gas female. To bulb type f (Ø 17mm) cannot apply adaptors. Required connection must be specified when ordering.

H/P Mounting bracket: for 2" pipe (50mm) mounting. Bracket weight: 1.150kg

Thermowells: Threaded and flanged from tube or bar stock.

Material: Standard stainless steel AISI 316 other materials on request.

500 chart package: with graduation (range) preferred)

Hydroscopic Ink: 12 bottles of 25cc package red or blue colour.

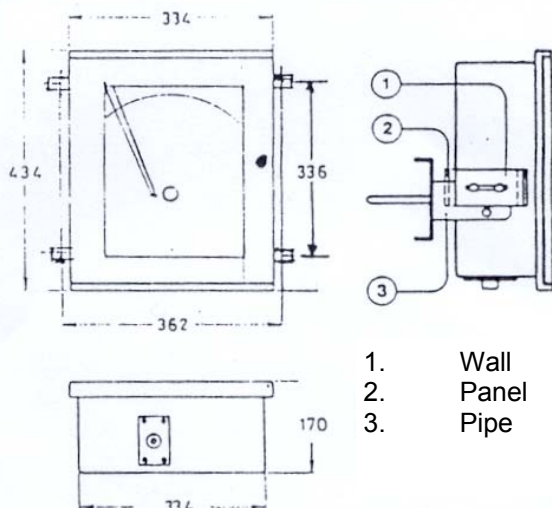
SPECIAL FEATURES

Recorders can be supplied in special features for these features full information is provided on request.

With Signal Pen: Pneumatic or electric actuation with registration on the chart board for to indicate the control element condition.

With Programme Cam: for electric contacts programmer actuation variable resistor or with pneumatic output.

DIMENSIONS (mm)



When ordering please specify:

Model:

Range:

Optional Extra features and Accessories

Panel Cut Out: 345 x 370mm



GNW LTD

ACCREDITED TO BS EN ISO 9002:1994

www.GNW.Co.UK

UNIT 1 OLD HALL FARM BUSINESS PARK

CROWLAND STREET SOUTHPORT PR9 7RJ

TEL:01704 536010 FAX:01704 548028 Email: SALES@GNW.CO.UK