

Programmable Hygro-/Thermometer H5800



- ◆ Good accuracy at low consumption
- ◆ Operates with COMECO humidity handheld probes
- ◆ Humidity and temperature measurement
- ◆ Automatic temperature compensation of the RH probe
- ◆ 4-digit LCD display with mode indication
- ◆ Programmable auto power-off function
- ◆ Battery voltage management
- ◆ Readings in percentage, degrees Celsius or Fahrenheit

H5800 is a handheld microprocessor-based device for relative-humidity measurement in air and non-aggressive gases, designed to operate with COMECO's RH probes. With the help of a Pt1000 sensor build in the RH probe, H5800 compensates probe temperature drift and indicates medium temperature. The device is equipped with a 4-digit display providing a resolution of 0.1. Two modes of operation – measurement of relative humidity and measurement of medium temperature in degrees Celsius or Fahrenheit – are available. Dew-point, absolute humidity, mixing ratio, and enthalpy can also be measured through calculation. H5800 is programmed and controlled through a folio-type keyboard providing high degree of environmental protection. The device is powered by 2 alkaline or rechargeable 1.5 V AA batteries and features a special automatic-battery-control function. The numerous features of H5800, along with its high accuracy and low consumption, make it a widely applicable measurement instrument.



Technical specifications

Inputs

| | |
|--------------------------|----------------------------|
| RH input | 0...100 mV |
| - range | 0...100 %RH |
| Temperature input | Pt1000 (w=1.385) |
| - range | -20...150 °C (-4...302 °F) |

Indication and controls

| | |
|------------------------|--------------------|
| Digital display | 4-digit LCD, 13 mm |
| Keyboard | 3 membrane keys |

Accuracy

| | |
|--|--------------------------|
| RH measurement error | 0.1% from span |
| Temperature measurement error | 0.1% from span |
| Non-linearity | negligible |
| Temperature drift | 0.01% from span for 1 °C |
| Supply-voltage influence for RH | 0.2% from span for 1 V |
| Supply-voltage influence for T | 0.1% from span for 1 V |

⁽¹⁾ Not included

Operating conditions

| | |
|----------------------------|-------------|
| Ambient temperature | -10...65 °C |
| Ambient humidity | 0...85 %RH |

Power supply

| | |
|------------------------------|--|
| Supply voltage | 3 V from 2 batteries AA 1.5 V ⁽¹⁾ |
| Operating consumption | less than 8 mA |
| Stand-by consumption | less than 1 µA |
| Auto-power-off time | 0...30 min, programmable |

Design and materials

| | |
|--------------------------------|---------------------------------------|
| Case material | plastic |
| Probe connection | 4-pin snap-in connector ø8, type 'C3' |
| Dimensions | 65x118x22 mm |
| Weight | max. 110 g (w/ batteries) |
| Protection, case/socket | IP44 / IP40 |

Ordering code H5800