# HUMIPORT

## Humidity / Temperature Hand-Helds

Hand-held measurement of relevant climatic data is becoming more and more important. Thermo-Hygrometers of the HUMIPORT series set new standards because of the combination of the latest technology and design.
Excellent readability of the large and illuminated display, the simple thumbwheel operation and the robust case allow the use in tough industrial environments. Latest technology and the well proven E+E humidity sensor guarantee highest accuracy and long term stable measurements.

The HUMIPORT measures relative humidity [% RH] and temperature [°C or °F] and calculates dew point temperature [°C or °F], absolute humidity [g/m³] and mixing ratio [g/kg or gr/lb].

HUMIPORT10/20 Thermo-Hygrometers are available in a practical carrying case. The set contains a HUMIPORT incl. an E+E factory certificate and a humidity calibration device with 5 ampoules calibration fluid (80% RH).

Thermo - hygrometer and laser pyrometer of the HUMIPORT 05 IR series provide 3 operation modes:

TH-mode:
- Temperature / humidity measurement
- In this mode the hand-held offers you all functions of the HUMIPORT 05 series.

IR-mode, infrared:
- Contact-free surface temperature measurement with measurement position marking

DP-mode:
- Dew point temperature / surface temperature measurement
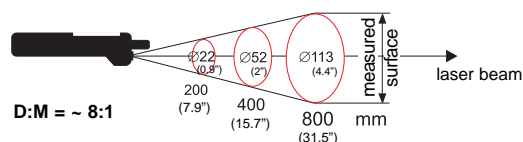- Dew point detection on walls



HUMIPORT 20  
HUMIPORT 05  
HUMIPORT 10

HUMIPORT 05 IR    NEW

HUMIPORT 10/20 SET

## Product Comparison HUMIPORT Series

| Functions | | HUMIPORT 05 | HUMIPORT 05 IR | HUMIPORT 10 | HUMIPORT 20 | Comment |
|---|---|:---:|:---:|:---:|:---:|---|
| measurement: | - relative humidity and temperature | ✓ | ✓ | ✓ | ✓ | |
| | - surface temperature | | ✓ | | | |
| calculation: | - dew point temperature [°C or °F] | ✓ | ✓ | ✓ | ✓ | |
| | - absolute humidity [g/m³] | ✓ | | ✓ | ✓ | |
| | - mixing ratio [g/kg or gr/lb] | ✓ | | ✓ | ✓ | |
| dew point detection on walls | | | ✓ | | | |
| alarm function | | | ✓ | | | |
| HOLD / MIN / MAX / AVG readout | | ✓ | ✓ | ✓ | ✓ | |
| SI- / US- units selectable | | ✓ | ✓ | ✓ | ✓ | |
| easy thumb-wheel operation | | ✓ | ✓ | ✓ | ✓ | |
| 1 point humidity and temperature calibration | | ✓ | ✓ | ✓ | ✓ | |
| 2 point humidity calibration | | | | ✓ | ✓ | |
| illuminated display | | | | ✓ | ✓ | |
| auto power off | | ✓ | ✓ | ✓ | ✓ | |
| real time clock | | | | ✓ | ✓ | |
| probe fixed | | ✓ | ✓ | ✓ | | |
| remote probe 1.5m (5ft) | | | | | ✓ | |
| HUMIPORT 10/20 Set (carrying case incl. HUMIPORT, humidity calibration device, 5 ampoules with calibration fluid (for 80% RH) and an E+E factory certificate) | | | | ✓ | ✓ | optional |
| protection cover | | ✓ | ✓ | | | optional |

E+E ELEKTRONIK® Ges.m.b.H.

# Technical Data

| | | HUMIPORT 05 | HUMIPORT 05 IR | HUMIPORT 10/20 |
|---|---|---|---|---|
| **Measuring values** | | | | |
| Sensor type | relative humidity | HC101 | HC101 | HC101 |
| | temperature | NTC | NTC | NTC |
| | surface temperature | | Thermopile | |
| Measuring range | relative humidity | 5...95% RH | 5...95% RH | 0...98% RH |
| | temperature | -20...50°C (-4...122°F) | -20...50°C (-4...122°F) | -20...50°C (-4...122°F) |
| | dew point at 20°C (68°F) | -15...19°C (5...66°F) | | -20...19°C (-4...66°F) |
| | mixing ratio at 20°C (68°F) | 1.18...14g/kg (8.26...98gr/lb) | | 0.78...14g/kg (5.46...98gr/lb) |
| | surface temperature | | -20...60°C (-4...140°F) | |
| Accuracy | relative humidity | ±2% RH | ±2% RH | ±2% RH |
| | temperature | ±0.4°C (0...40°C) (±0.7°F at 32...104°F)  ±0.7°C (-20...50°C) (±1.3°F at -4...122°F) | ±0.4°C (0...40°C) (±0.7°F at 32...104°F)  ±0.7°C (-20...50°C) (±1.3°F at -4...122°F) | ±0.3°C (0...40°C) (±0.54°F at 32...104°F)  ±0.5°C (-20...50°C) (±0.9°F at -4...122°F) |
| | dew point at 20°C (68°F) | ± (4.46...0.64°C) ± (8.03...1.15°F) | | ± (4.33...0.45°C) ± (7.79...0.81°F) |
| | mixing ratio at 20°C (68°F) | ± (0.44...0.57g/kg) ± (3.08...3.99gr/lb) | | ± (0.29...0.4g/kg) ± (2.03...2.8gr/lb) |
| | surface temperature | | ±2°C (±3.6°F) ($T_{obj} > 0°C$ (32°F); $T_{amb} > 10°C$ (50°F)) | |
| Resolution | relative humidity | 0.1% RH | 0.1% RH | 0.1% RH |
| | temperature | 0.1°C (0.18°F) | 0.1°C (0.18°F) | 0.1°C (0.18°F) |
| | surface temperature | | 0.1°C (0.18°F) | |
| **General** | | | | |
| Supply voltage | | 9V battery | 9V battery | 4x 1.5V AA battery |
| Battery lifetime | | typ. > 150h | max. 200h - TH mode 10h - IR/DP mode | typ. > 500h |
| Working temperature range | | housing: 0...50°C (32...122°F)  probe: -20...50°C (-4...122°F) | housing: 0...50°C (32...122°F)  probe: -20...50°C (-4...122°F) | housing: 0...50°C (32...122°F)  probe: -20...50°C (-4...122°F) |
| Storage temperature range | | -30...60°C (-22...140°F) | -30...60°C (-22...140°F) | -30...60°C (-22...140°F) |
| Display | | LCD, 45x32mm (1.8x1.3") | LCD, 45x32mm (1.8x1.3") | LCD, 90x50mm (3.5x1.9") illuminated |
| Measuring optics[1] | | | ~ 8:1 | |
| CE compatibility according | | EN61000-6-2 EN50147-3 | EN61000-6-2 EN50147-3 | EN50081-2   EN50082-2 EN61000-4-2   EN61000-4-3 EN55011 |
| Housing / protection class | | ABS / IP40 | ABS / IP40 | ABS / IP40 |
| Dimensions (HxWxD) | | housing: 140 x 48 x 25mm (5.5.x1.9x1") | housing: 140 x 48 x 25mm (5.5.x1.9x1") | housing: 145 x 85 x 37mm (5.7x3.3x1.5")  HUMIPORT 20: cable length: approx. 1.5m (4.9ft) |
| Weight | | ca. 200g (0.5 lbs) | ca. 200g (0.5 lbs) | ca. 400g (1 lbs) |

1) Distance : Measured surface (D:M)
For accurate measurements, the target must be at least twice as big as the measured surface (red spot of the laser beam). The determined temperature is the average temperature of the measured surface.



D:M = ~ 8:1

# Order information

| MODEL | | ACCESSORIES | |
|---|---|---|---|
| HUMIPORT 05 | (HUMIPORT 05) | Metal grid filter for average pollutions | (HA010106) |
| HUMIPORT 05 IR | (HUMIPORT 05 IR) | Stainless steel sintered filter for strong pollutions | (HA010103) |
| HUMIPORT 10 | (HUMIPORT 10) | Protection cover for HUMIPORT 05 and HUMIPORT 05 IR | (HA040903) |
| HUMIPORT 20 | (HUMIPORT 20) | | |
| HUMIPORT 10 Set | (HUMIPORT 10-Set) | | |
| HUMIPORT 20 Set | (HUMIPORT 20-Set) | | |

HUMIPORT