

HYGROPALM HP32

Short Instruction Manual

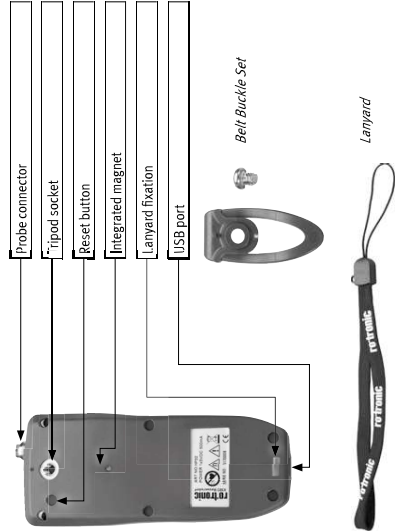
1 GENERAL DESCRIPTION

The HP32 is a highly accurate handheld instrument compatible with all HC2 and HC2A probes to perform measurement and logging of relative humidity, temperature and calculated psychrometric parameters.

1.1 PACKAGE CONTENT

- HygroPalm HP32
- Soft Case
- Micro-USB Service Cable (AC0006)
- Belt Buckle Set
- Lanyard
- Certificate
- HW4-LITE license key

2 ASSEMBLY AND FIXATION



2.1 PROBE

The HP32 is compatible with all HC2 and HC2A probes. Simply connect it to the probe input on top.

- A calibration of the HP32 after changing the probe is not necessary.

2.2 TRIPOD SOCKET

The standardized tripod socket (1/4"-20 UNC thread) at the back of the device enables a wide range of conventional mounting accessories. For example, camera tripods or, the belt buckle delivered with the device.

2.3 MAGNETIC

The magnet integrated at the back of the HP32 enables easy installation on metallic surfaces such as, for example, ventilation shafts.

- The magnetic fastening will not work with an accessory mounted on the tripod socket.

2.4 LANYARD

Delivered with the HP32, you will find a lanyard that can be tightened on the HP32 for easy hand carrying and manipulation.

3 GENERAL OPERATION

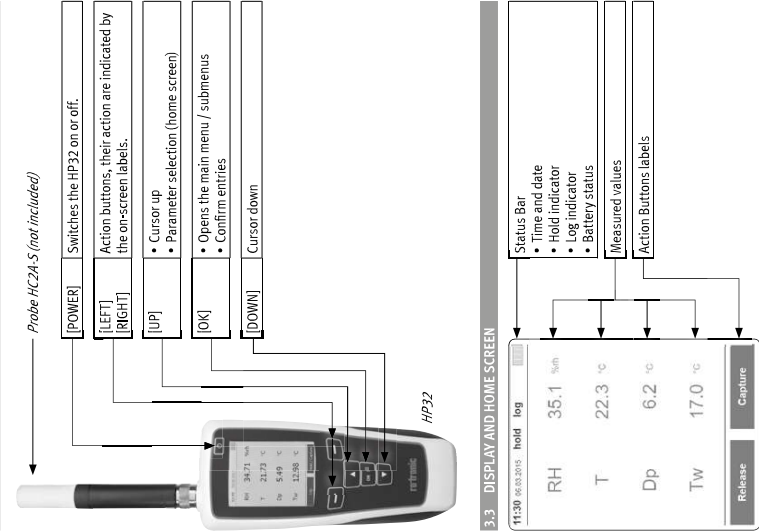
3.1 BATTERY, STAND-BY AND AUTO SWITCH OFF

The HP32 has an integrated battery. Simply connect the device to an USB port with the delivered cable to charge it.

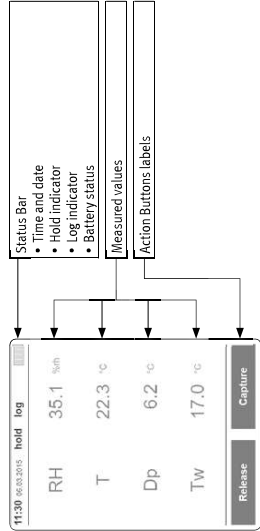
The device has a stand-by and an auto switch off feature. After 5 minutes without user interaction, the display is dimmed. Moreover, after a total of 10 minutes without user interaction, the device is switched off to save battery.

- These features do not affect data logging operations. While data logging is active, although the screen is dimmed or off, data points are still logged and saved.

3.2 BUTTONS



3.3 DISPLAY AND HOME SCREEN



4 GENERAL SETTINGS

4.1 LANGUAGE

To change the display language go into:

Main menu [OK] → Settings → Language

Available languages: English, Deutsch, Français, Italiano

4.2 DATE/TIME

To set up the date and time, go into:

Main menu [OK] → Settings → Date / Time

The following settings can also be set beside the date and time.

- Date format: DIN, US, ISO
- Time format: 12 h, 24 h

- The date and time must be set correctly for proper operation of the device.

4.3 UNITS

Set units used and displayed by the HP32 into:

Main menu [OK] → Settings → Units

Your options are as follow:

- Distance: m, ft
- Temperature: °C, °F
- Pressure: hPa, mmHg
- Weight: kg, lbs

4.4 CALCULATED PSYCHROMETRIC PARAMETERS

Beside relative humidity and temperature, the HP32 can display 2 of the following 10 psychrometric parameters:

- Dew / Frost point (Dp/Fp)
- Wet bulb temperature (Tw)
- Enthalpy (H)
- Vapor concentration (Dv)
- Specific humidity (Q)
- Mixing ratio by weight (R)
- Vapor pressure (E)
- Saturation vapor pressure (Ew)
- Saturation vapor density (SD)

Select the parameters that you want to log and/or see on the home screen within:

Main menu [OK] → Settings → Displayed calculated parameters

- You can change the order of values on the home screen by [UP] on the home screen. You can change the atmospheric pressure constant used in calculations in:

Main menu → Settings → Atmospheric pressure

5 SAVING DATA

5.1 HOLD/CAPTURE AND SPOT MEASUREMENTS

Freeze the displayed values on the home screen by pressing the [Hold/Capture] action button on the home screen. Those values can then be:

- Saved as a spot measurement with [Capture]
- Released again with [Release]

5.2 DATA LOGGING

Program or start the automatic logging at regular interval with the [Log] action button. Define the storage location, the interval and, if you want, a start and stop time, then start the logging operation by pressing the [Start] action button.

- Your device will be automatically switched on at the given start time to start the logging. The main menu is not accessible while data logging is active. Spot measurements are, however, still possible.

- You must name storage locations before use. Simply use the [Rename] action button when selecting a storage location to assign it a name.

6 VIEWING SAVED DATA

6.1 SPOT MEASUREMENTS

Review the spot measurements by selecting their storage location within:

Main Menu [OK] → Memory – Capture

6.2 LOGGED DATA

Review the logged data by selecting its storage location within:

Main Menu [OK] → Memory – Log

- Switch between graphic displays and MIN / MAX / AVG values of the 4 parameters with [UP] and [DOWN].

7 ALARM

Set up upper, lower limits as well as hysteresis for every displayed parameter in:

Main Menu [OK] → Alarms

Broken alarm limits are shown in red on the home screen.

- You can also enable an acoustic signal for broken alarms in:

Main Menu [OK] → Settings → Buzzer

8 ADJUSTEMENT

Adjustments of the probe (humidity and temperature) can be performed in:

Main Menu [OK] → Adjustment

- Incorrectly adjusted probes will deliver wrong measurements. Please refer to our manual for more information about probe adjustments.

9 COMPUTER CONNECTION

It is possible to connect the HP32 to a computer with the delivered USB service cable. Data analysis and settings changes are performed with the HW4 software for which you received a license key.

To download the HW4 software and learn more about its capabilities, please visit our webpage: www.rotronic.com/hw4.

10 TECHNICAL DATA

General specifications	
Device type	Handheld device (%RH / °C)
Compatible probes	All HC2 and HC2A probes
Application range	-10...-60°C [0...100%RH (non-cond.)]
Storage range	-10...-45°C [0...90%RH]
Probe application range	Depends on the probe
Accuracy	Depends on the probe
Functions	Spot measurements Interval logging MIN / MAX / AVG / MKT
Logging interval	1s...24h
Memory capacity	8x8000 data points
Psychrometric calculations	Dew / Frost point (Dp / Fp) Wet bulb temperature (Tw) Enthalpy (H) Vapor concentration (Dv) Specific humidity (Q) Mixing ratio by weight (R) Vapor pressure (E) Saturation vapor pressure (Ew) Saturation vapor density (SD)
Display refresh rate	1 s (typical)
Integrated Battery	48h – Logging every 30s, screen off 10h – Screen always on (typical)
PC Interface	Micro-USB port, HW4 compatible
Housing / Mechanics	
Housing Material	ABS, TPR
IP Protection	IP65
Dimension	160 x 63 x 30 mm
Weight	185 g