



HYGROPALM21

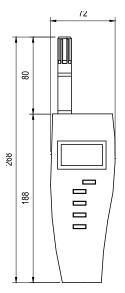
The HP21 is the ideal instrument for humidity and temperature measurement in simple applications. The integrated HC2 probe guarantees accurate measuring results.

APPLICATIONS

Portable inspection and spot checks in HVAC, the pharmaceutical industry and building management systems.

FEATURES

- Fixed probe
- Range of application -10...60 °C / 0...100 %RH
- Accuracy: ±1 %RH, 0.2 K, at 10...30 °C
- Calculation of dew/frost point
- Adjusted at 23 °C and 10 / 35 / 80 %RH
- Service interface (UART)
- LC display with trend indicators



Order code	HP21
Device type	Handheld instrument with integrated probe
Sensortype	ROTRONIC HYGROMER® IN-1, Pt100 1/3 Class B
Filter type	Polyethylene standard filter, 20 μm
Response time	< 5 s, without filter
Material	ABS (device), polycarbonate (probe)
Power supply	9 V battery
Weight	200 g



DELIVERY PACKAGE

- Factory adjustment certificate
- Short instruction manual
- Battery

RECOMMENDED ACCESSORIES

•	Service cable	AC3006
•	Polyethylene filter, gray, 20 μm	NSP-PCB-PE
•	Calibration device for HC2A-S probe	ER-15
•	Desktop stand	DESK-HP
•	Humidity standard for calibration 10 %RH	EA10-SCS
•	Humidity standard for calibration 35 %RH	EA35-SCS
•	Humidity standard for calibration 80 %RH	EA80-SCS



HYGROPALM32

The HygroPalm32 can be combined without adjustment with all HC2 probes from Rotronic. It measures relative humidity and temperature, can perform all psychrometric calculations and has trend indicators as well as a hold function to freeze measured values.

APPLICATIONS

Portable inspection and spot checks in HVAC, the pharmaceutical industry and building management systems.

FEATURES

- High flexibility thanks to HC2 compatibility
- Easy use
- All psychrometric calculations
- Graphic display of saved data
- Visual and audible alarms
- Magnetic attachment, e.g. to ventilation shafts
- Programmable logging
- Professional HW4 evaluation software

Order code	HP32	
Device type	Handheld instrument for interchangeable HC2 probes	
Filter type	Compatible with all HC2 probes	
	(order separately)	
Material	ABS, TPR	
Power supply	Integrated rechargeable battery	
Weight	185 g	





COMPATIBLE

• With all Rotronic HC2 probes

DELIVERY PACKAGE

- Short instruction manual
- Soft case
- USB-Micro service cable AC0006

RECOMMENDED ACCESSORIES

Polyethylene filter, gray, 20 µm
 Humidity standard for calibration 10 %RH
 Humidity standard for calibration 35 %RH
 Humidity standard for calibration 80 %RH
 EA80-SCS





HYGROPALM23-A

The HygroPalm23-A is the high-end product in our range of handheld instruments. In addition to measuring humidity and temperature, it also calculates all psychrometric parameters and provides a variety of additional functions. The HP23-A is a full-function data logger and has the capability to record measurements with a simple push of a button. In addition, all Rotronic transmitters in the AirChip3000 series can be adjusted with the HP23-A via a service cable.

APPLICATIONS

Portable applications in HVAC, the pharmaceutical industry, building management systems, etc.

FEATURES

- Two probe connections for all Rotronic HC2 probes or analog third-party probes (not included)
- Data recording function for up to 10,000 data records (with date, time, batch no.)
- Adjustment of transmitters via service cable
- All psychrometric calculations
- Battery charging function
- Service interface (USB)

Order code	HP23-A	
Probe type	Compatible with all HC2 probes (not included)	
Range of application	-1060 °C / 0100 %RH	
Material	ABS	
Power supply	9 V battery or rechargeable battery	
Weight	200 g	

Order code	HP23-A-SET
Set consists of:	Handheld instrument, HP23-A
	Standard probe, HC2A-S
	Extension cable, 2 m, E2-02A
	Calibration device, ER15
	Humidity standard for calibration 80 %RH, EA80-SCS
	HW4 software, HW4-E-Vxx
	Service cable, AC2001
	USB-A to USB-Mini cable, AC0003
	Carry case, AC1127



i

COMPATIBLE

- All Rotronic HC2 probes
- HF3, HF4, HF53/4/5/6, HF7, HF8 for adjustment with service cable (AC2001)
- HW4 software

DELIVERY PACKAGE

- Short instruction manual
- Battery

RECOMMENDED ACCESSORIES

 Polyethylene filter, gray, 20 μm 	NSP-PCB-PE
 Desktop stand 	DESK-HP
 Humidity standard for calibration 10 %RH 	EA10-SCS
 Humidity standard for calibration 35 %RH 	EA35-SCS
 Humidity standard for calibration 80 %RH 	EA80-SCS
 5 VDC AC adapter 	AC1212



Fixed probe Fixed probe HCZA-xx HCZA-xx (not included) or analog (not included) (not inc	Specifications handheld instruments	Specifications handheld instruments				
Continctuded Cont	Features	HP21	HP32	HP23-A		
Humidity / Temperature sensor	Probe type	Fixed probe				
Number of probe inputs N/A 1 2 Measurement range (probe) -1060 °C 0100 °RH -1060 °C/0100 °RH -1060 °	Probe interchangeable	No	Yes	Yes		
Measurement range (probe) -1060 °C 0100 %RH Accuracy at 1030 °C 11 %RH / #2.2 K Probe dependent (chapter Probes, page 4)	Humidity / Temperature sensor		Probe dependent			
Accuracy at 1030 °C	Number of probe inputs	N/A	1	2		
Long-term stability c1 %RH / year Response time humidity sensor c15 s 7 63 Probe dependent (chapter Probes, page 4) Initialization time c2 s Range of application 2 decimals Illuminated display Alarm indicators No Yes Yes Battery indicator Yes Adjustment of transmitters No No No Yes Malustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point °C Probe adjustment with dew point reference Calculations Dew point / Frost point All psychrometric parameters Data logging No 8 x 8,000 measurement points Detectical specifications Power supply 9 V battery or rechargeable battery Beattery life (typical, without backlight) Communication interfaces UART Service cable AC3006 Service cable AC0003 Max. length probe cable Mechanical specifications Power supply Polycarbonate (probe) Polycarbonate (probe) Bass S S S S S S S S S S S S S S S S S S	Measurement range (probe)		Probe dependent (chapter Probes, page 4)			
Response time humidity sensor nitialization time 25 s	Accuracy at 1030 °C	±1 %RH / ±0.2 K	Probe dependent (chapter P	robes, page 4)		
Initialization time Arange of application 1060 °C / 0100 %RH 2160 °C / 0100 %RH 2160 °C / 0100 %RH 2260 °C / 0100 %RH 2360 °C / 0100 %RH 247 kg s	Long-term stability	<1 %RH / year				
Range of application -1060 °C / 0100 %RH 2 decimals	Response time humidity sensor	<15 s τ 63	Probe dependent (chapter P	robes, page 4)		
Display resolution Uluminated display Yes	Initialization time	<2 s				
Alarm indicators No Yes Yes Sattery indicator Yes Seatery indicator Seat time clock No Yes Yes Seattline clock No Yes Yes Seattline clock Seat Seatery Single-point WRH & °C Single & multi-point WRH Single-point WRH Single-poin	Range of application	-1060 °C / 0100 %RH				
Alarm indicators Battery indicator Real time clock Real time c	Display resolution	2 decimals				
Real time clock No Yes Functions Adjustment of transmitters Adjustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point °C Probe adjustment with dew point reference Calculations Dew point / Frost point All psychrometric parameters Data logging No 8x8,000 measurement points Dew point / Frost point All psychrometric parameters Data logging No 8x8,000 measurement points Dew point / Frost point All psychrometric parameters Data logging No 8x8,000 measurement points Dewer supply Power supply Power supply Power supply Settertrical specifications Power supply Setter (typical, without backlight) Data logging No 47 h So h (1 probe) Data logging Mini USB Service cable AC3006 Service cable AC0006 Service cable AC0003 Max. length probe cable Mechanical specifications Mechanical specifications Mechanical specifications Dimensions ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight DO g DEE CE / EMC directives DA 2 CEF Part 11 / GAMP 5-compliant HW4 software Power supply Possible & Weight DA 2 CEF Part 11 / GAMP 5-compliant HW4 software	Illuminated display	Yes				
Real time clock No Yes Yes Functions Adjustment of transmitters No No No Yes Adjustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point °C Probe adjustment with dew point reference Calculations Dew point / Frost point All psychrometric parameters Data logging No 8x8,000 measurement points 20,000 data records (2x10,000 pairs of measurement points) Electrical specifications Prower supply 9 V battery or rechargeable battery battery USB cable, 5 VDC AC adapter Rechargeable battery charge No Yes Battery life (typical, without 80 h 47 h 80 h (1 probe) Communication interfaces UART Micro USB Service cable AC0003 Every cable AC3006 Service cable AC0006 Service cable AC0003 Max. length probe cable Mechanical specifications Mechanical specifications Mechanical specifications ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) (without probe) Meight 200 g 185 g 200 g ECE / EMC directives 2014/30/EU FDA 21 CFR Part 11 / GAMP 5-complaint HW4 software	Alarm indicators	No	Yes	Yes		
Adjustment of transmitters Adjustment of transmitters Adjustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point °C Probe adjustment with dew point reference Calculations Dew point / Frost point All psychrometric parameters Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Probe adjustment with dew point reference No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply 9 V battery or rechargeable battery Battery life (typical, without backlight) Communication interfaces UART service cable AC3006 Service cable AC0006 Service cable AC0003 Service cable AC0006 Service cable AC0003 Service cable AC0006 Se	Battery indicator	Yes				
Adjustment of transmitters Adjustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point %RH Single-point °C Probe adjustment with dew point reference No Dew point / Frost point All psychrometric parameters Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply Battery prechargeable battery Battery prechargeable battery Rechargeable battery charge No Restrey life (typical, without backlight) Communication interfaces UART Service cable AC3006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 200 g ED A 21 CFR Part 11 / GAMP 5-compliant HW4 software	Real time clock	No	Yes	Yes		
Adjustment via keypad Single-point %RH & °C Single & multi-point %RH Single-point °C Yes Calculations Dew point / Frost point All psychrometric parameters Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply Power supply Battery No No No Rechargeable battery charge Bottery life (typical, without backlight) Communication interfaces UART Service cable AC3006 Service cable AC0006 Service cable AC0003 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm Weight 200 g 185 g 200 g FDA 21 CFR Part 11 / GAMP 5-complaint HW4 software	Functions					
Probe adjustment with dew point reference No Dew point / Frost point All psychrometric parameters Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply 9 V battery or rechargeable battery Bechargeable battery charge Beattery life (typical, without backlight) Communication interfaces UART Service cable AC3006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 200 g 185 g 200 g FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Adjustment of transmitters	No	No	Yes		
Calculations Dew point / Frost point Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply 9 V battery or rechargeable battery battery No 80 h 47 h 80 h (1 probe) Communication interfaces Wart Service cable AC3006 Service cable AC0006 Service cable AC0003 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions ABS (72 x 35 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility All psychrometric parameters 20,000 data records (2 x 10,000 pairs of measurement points) A x 8,000 measurement points (2x 10,000 pairs of measurement points) AV yes Battery (USB cable, 5 VDC AC adapter Yes 80 h (1 probe) Micro USB Service cable AC0006 Service cable AC0006 Service cable AC0003 Micro USB Service cable AC0003 Micro USB Service cable AC0003 Micro USB Service cable AC0006 Service cable AC0003 Micro USB Service cable AC0006 Service cable AC0003 Service cable AC0006 S	Adjustment via keypad	Single-point %RH & °C				
Data logging No 8 x 8,000 measurement points 20,000 data records (2 x 10,000 pairs of measurement points) Electrical specifications Power supply 9 V battery or rechargeable battery Battery Battery Battery life (typical, without backlight) Communication interfaces UART Service cable AC3006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions ABS (housing), polycarbonate (probe) Dimensions ABS (housing), polycarbonate (probe) Dimensions 200 g 185 g 200 g EMC / GMP compatibility P V battery, rechargeable battery, USB cable, 5 VDC AC adapter Yes 80 h (1 probe) Mini USB Service cable AC0003 Service cable AC0003 Service cable AC0003 ABS (housing), polycarbonate (probe) polycarbonate (probe) 150 x 65 x 31 mm (without probe) (without probe) Weight 200 g 185 g 200 g CE / EMC directives FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Probe adjustment with dew point reference	No		Yes		
points (2 x 10,000 pairs of measurement points) Electrical specifications Power supply 9 V battery or rechargeable battery USB cable, 5 VDC AC adapter (USB cable, 5 VDC AC adapter) Rechargeable battery charge No Yes Battery life (typical, without 80 h 47 h 80 h (1 probe) Dimensions UART Micro USB Mini USB Service cable AC0006 Service cable AC0003 Max. length probe cable 5 m Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 200 g CE / EMC directives FDA / GMP compatibility FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Calculations	Dew point / Frost point	All psychrometric parameters			
Power supply 9 V battery or rechargeable battery battery No Battery life (typical, without backlight) Communication interfaces Wax. length probe cable Housing material ABS (housing), polycarbonate (probe) Dimensions ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility Integrated rechargeable battery, USB cable, 5 VDC AC adapter Yes 80 h (1 probe) 80 h (1 probe) Mini USB Service cable AC0006 Service cable AC0003 Main USB Service cable AC0003 ABS, FPR (housing) ABS (housing), polycarbonate (probe) 150 x 65 x 31 mm (without probe) Weight 200 g 185 g 200 g 200 g FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Data logging	No		(2 x 10,000 pairs of measurement		
battery battery USB cable, 5 VDC AC adapter Rechargeable battery charge No Rechargeable battery life (typical, without backlight) Communication interfaces UART Service cable AC3006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 200 g CE / EMC directives FDA / GMP compatibility Ves Mini USB Service cable AC0006 Service cable AC0003 ABS (housing), polycarbonate (probe) 150 x 65 x 31 mm (without probe) (without probe) 188 x 72 x 35 mm (without probe) 200 g 2014/30/EU FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Electrical specifications					
Battery life (typical, without backlight) Communication interfaces UART Micro USB Service cable AC0006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility Micro USB Service cable AC0006 Service cable AC0003 ABS (housing), polycarbonate (probe) Service cable AC0006 Service cable AC0003 Service cable AC0006 Service cable AC0003 Service cable AC0006 Service	Power supply	-				
Communication interfaces UART Service cable AC3006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility Micro USB Service cable AC0006 Service cable AC0003 ABS (housing), polycarbonate (probe) Service cable AC0003 Service cable AC0006 Service cable AC	Rechargeable battery charge	No		Yes		
service cable AC3006 Service cable AC0006 Max. length probe cable Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm 150 x 65 x 31 mm (without probe) (without probe) Weight 200 g 185 g 200 g CE / EMC directives FDA / GMP compatibility Service cable AC0003	Battery life (typical, without backlight)	80 h	47 h	80 h (1 probe)		
Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm 150 x 65 x 31 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility ABS (housing), polycarbonate (probe) ABS (housing), polycarbonate (probe) 150 x 65 x 31 mm (without probe) (without probe) (without probe) 200 g 2014/30/EU FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Communication interfaces					
Mechanical specifications Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm 150 x 65 x 31 mm (without probe) Weight 200 g 185 g 2014/30/EU FDA / GMP compatibility ABS (housing), polycarbonate (probe) ABS (housing), polycarbonate (probe) 150 x 65 x 31 mm (without probe) (without probe) (without probe) 200 g 2014/30/EU FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Max. length probe cable		5 m			
Housing material ABS (housing), polycarbonate (probe) Dimensions 274 x 72 x 35 mm 150 x 65 x 31 mm (without probe) Weight 200 g 185 g 200 g CE / EMC directives FDA / GMP compatibility ABS (housing), polycarbonate (probe) 150 x 65 x 31 mm (without probe) (without probe) (without probe) 200 g 185 g 200 g	Mechanical specifications					
(without probe) (without probe) Weight 200 g 185 g 200 g CE / EMC directives 2014/30/EU FDA / GMP compatibility FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Housing material		ABS, TPR (housing)			
Weight 200 g 185 g 200 g CE / EMC directives 2014/30/EU FDA / GMP compatibility FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Dimensions	274 x 72 x 35 mm				
CE / EMC directives 2014/30/EU FDA / GMP compatibility FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	Weight	200 g				
FDA / GMP compatibility FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software	CE / EMC directives			_		
	FDA / GMP compatibility		5-compliant HW4 software			
	IP protection class			IP40		