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Datasheet Omniport 30

Multifunctional Hand-Held Meter



Omniport 30

Multifunctional Hand-Held Meter

The robust multifunctional hand-held meter meets the highest requirements and comes with a wide range of accurate probes that fit various applications. Use touch-screen navigation to show up to three measurement values simultaneously on the capacitive TFT display.

Outstanding Measurement Performance

A total of 22 measurands (vary according to probe) is available, including:

- Relative humidity RH
- Temperature T
- Dew point temperature Td
- Absolute humidity dv
- Mixing ratio r
- Air velocity v
- Volumetric flow \dot{v}
- Air pressure p

The measured values are stored in the internal memory of the device. With the free SmartGraph3 software, the measured data can be easily managed via PC.

Accessory

The optional carrying case accommodates the hand-held meter and probes, as well as accessories.



Hand-held meter with remote probe



Hand-held meter with pluggable probe

Features

Omniport 30

- Data logging function
- Internal memory for 2 million measured values
- 22 physical quantities
- Capacitive TFT touch screen
- Displays measurands simultaneously
- Real- time HOLD / MIN / MAX / AVG readout
- Integrated air pressure sensor
- User friendly operation
- SmartGraph3, free data management software

Probes

(refer to ordering guide)

- Pluggable Probes
- Remote Probes



TFT display

- 54 mm x 41 mm (2.13" x 1.61")
- With backlight

Enclosure

- IP40 protection rating
- ABS (Acrylonitrile butadiene styrene)

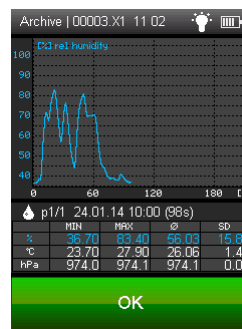
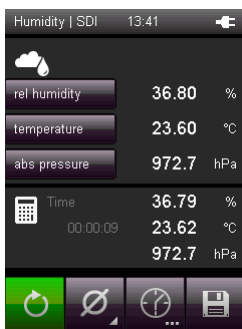
Features

Data-Logging & Data-Management

The Omniport 30 offers both continuous and single-point data-logging. The measurement values of up to three channels are stored simultaneously, together with a time and date stamp, in the internal memory of the device. For data recording, fully charged batteries or a permanent power supply are recommended.

Stored measurement data, as well as the minimum, maximum, average and standard deviation values can be shown directly on the display. Scroll through a recorded measurement and switch between graphs by using the control cross.

Data management is easy and intuitive by using the free SmartGraph3 software to create graphs that contain measurement channels of interest for better data analysis. Data can be exported in .csv format and then imported into EXCEL for further processing.



Recorded measurement: List representation

Recorded measurement: Graphical representation

Carrying Case

The optional carrying case protects the hand-held meter, probes and accessories during transport and storage. It helps to avoid mechanical damage, as well as the contamination of the sensors, which is essential for the optimal long term performance of the Omniport.

Protective Cover

The optional cover protects the hand-held meter during usage in dirty or oily environments. The integrated magnetic plate allows an easy temporary fixing of the hand-held meter onto a metallic surface on site, while the hang-on straps helps keep your hands free while taking measurements.



HA040906 Carrying case



HA040907 Protective cover

Dimensions

Values in mm (inch)

Omniport 30



Technical Data

Omniport 30

Power supply	4 x Alkaline LR6 AA batteries, 1.5 V (not in the scope of supply)
Optional power supply	5 V DC via USB (cable included), recommended for data recording
Internal memory	For approx. 2 million measured values
Automatic measurement Recording duration	5 min, 10 min, 30 min, 1 h, 3 h
Dimensions	170 x 62 x 34 mm (6.69 x 2.44 x 1.34")
Display	TFT Display, 54 x 41 mm (2.13 x 1.61"), with backlight
Weight	Approx. 205 g (0.45 lbs)
Temperature range	Operation 0...50 °C (32...122 °F) Storage -20...+60 °C (-4...+140 °F)
Enclosure	Material ABS (Acrylonitrile butadiene styrene) Protection rating IP40
Electromagnetic compatibility	EN 61000-6-2:2005 EN 61000-6-3:2007
Conformity	CE
Configuration software	SmartGraph3 Free download from www.epluse.com/omniport30



Technical Data

Integrated air pressure sensor

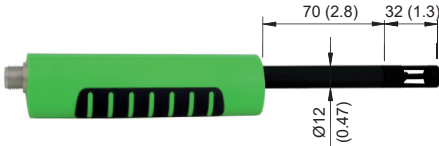

Measuring range probe	800...1 100 mbar (11.6...16.0 psi), absolute accuracy
Accuracy @ 25 °C (77 °F) and 1013 hPa (14.7 psi) max.	±0.5 mbar (±0.007 psi)
Long term stability, typ.	-1 mbar/year (-0.01 psi/year)

Humidity and Temperature Probes

Logprobe 20 - Compact, Pluggable HVAC Probe

Measuring range	0...100 %RH -40...+80 °C (-40...+176 °F)	
Accuracy @ 20 °C (68 °F)	0...90 %RH 90...100 %RH -40...+80 °C (-40...+176 °F) max.	±2 %RH ±3 %RH ±0.2 °C (±0.36 °F) ±0.6 °C (±1.08 °F)
Order code	Response time τ_{90}	Filter
	LOGPROBE20-HTPC	≤30 s Membrane
	LOGPROBE20-HTPA	≤10 s Plastic grid
Dimensions Values in mm (inch)		
Electromagnetic compatibility	EN 61326-1:2013	EN 61326-2-3:2013
Conformity		

Logprobe 16 - HVAC Probe

Measuring range	0...100 %RH -20...+70 °C (-4...+158 °F)	
Accuracy @ 20 °C (68 °F)	0...90 %RH 90...100 %RH -20...+70 °C (-4...+158 °F) max.	±2 %RH ±3 %RH ±0.2 °C (±0.36 °F) ±0.5 °C (±0.9 °F)
Response time τ_{90}	≤7 s	
Dimensions Values in mm (inch)		
Temperature range (Probe handle)	Operation	0...50 °C (32...122 °F)
	Storage	-20...+60 °C (-4...+140 °F)
Enclosure (Probe handle)	Material	ABS (Acrylonitrile butadiene styrene)
	Protection rating	IP40
Electromagnetic compatibility	EN 61326-1:2013	EN 61326-2-3:2013
Conformity		

Humidity and Temperature Probes

Logprobe 31 - High Temperature Probe

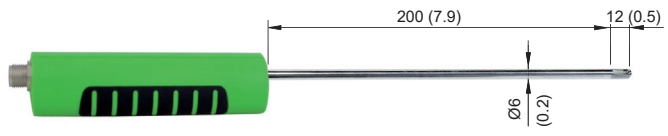

Measuring range	0...100 %RH -40...+180 °C (-40...+356 °F)	
Accuracy @ 20 °C (68 °F)	0...90 %RH 90...100 %RH	±2 %RH ±3 %RH ±0.2 °C (±0.36 °F) ±0.6 °C (±1.08 °F)
	-40...+180 °C (-40...+356 °F) max.	
Response time τ_{90}	≤30 s	
Temperature dependency RH	±0.03 %RH/°C (% RH/1.8 °F)	
Dimensions Values in mm (inch)		
Temperature range (Probe handle)	Operation	0...50 °C (32...122 °F)
	Storage	-20...+60 °C (-4...+140 °F)
Enclosure (Probe handle)	Material	ABS (Acrylonitrile butadiene styrene)
	Protection rating	IP40
Electromagnetic compatibility	EN 61326-1:2013 EN 61326-2-3:2013	
Conformity		

Logprobe 30 - Confined Space Probe

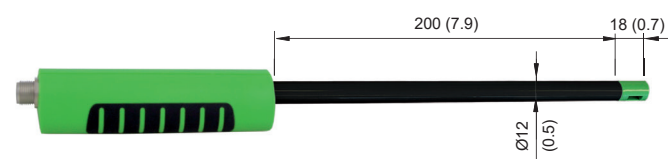

Measuring range	0...100 %RH -40...+100 °C (-40...+212 °F)	
Accuracy @ 20 °C (68 °F)	0...90 %RH 90...100 %RH	±2 %RH ±3 %RH ±0.2 °C (±0.36 °F) ±0.6 °C (±1.08 °F)
	-40...+100 °C (-40...+212 °F) max.	
Response time τ_{90}	≤15 s	
Temperature dependency RH	±0.03 %RH/°C (% RH/1.8 °F)	
Dimensions Values in mm (inch)		
Temperature range (Probe handle)	Operation	0...50 °C (32...122 °F)
	Storage	-20...+60 °C (-4...+140 °F)
Enclosure (Probe handle)	Material	ABS (Acrylonitrile butadiene styrene)
	Protection rating	IP40
Electromagnetic compatibility	EN 61326-1:2013 EN 61326-2-3:2013	
Conformity		

Air Velocity Probes

Logprobe 60/61 - Stainless Steel Probe

Measuring range	LOGPROBE60 LOGPROBE61	0.4...20 m/s (80...4000 ft/min) 0.12...2 m/s (24...400 ft/min)
Accuracy @ 20 °C (68 °F) and 1013 hPa (14.7 psi), 45 %RH	LOGPROBE60 LOGPROBE61	± (0.2 m/s (40 ft/min) + 2 % of mv) ± (0.04 m/s (8 ft/min) + 1 % of mv)
Response time τ_{90}		≤1.5 s
T measuring range		-20...+70 °C (-4...+158 °F)
T accuracy	LOGPROBE60 LOGPROBE61	±0.7 °C (±1.26 °F), v > 0.5 m/s, 0...50 °C (32...122 °F) ±1.2 °C (±2.16 °F), v = 0.2...0.5 m/s, 0...50 °C (32...122 °F)
Dimensions Values in mm (inch)		
Temperature range (Probe handle)	Operation Storage	0...50 °C (32...122 °F) -20...+60 °C (-4...+140 °F)
Enclosure (Probe handle)	Material Protection rating	ABS (Acrylonitrile butadiene styrene) IP40
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		

Logprobe 65 - Polycarbonate Probe

Measuring range		0.4...20 m/s (80...4000 ft/min) 0...50 °C (32...122 °F)
Accuracy		±(0.2 m/s (40 ft/min) + 3 % of mv) ±1 °C (±1.8 °F) (0...50 °C (32...122 °F))
Response time τ_{90}		≤1.5 s
Dimensions Values in mm (inch)		
Temperature range (Probe handle)	Operation Storage	0...50 °C (32...122 °F) -20...+60 °C (-4...+140 °F)
Enclosure (Probe handle)	Material Protection rating	ABS (Acrylonitrile butadiene styrene) IP40
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		

Ordering Guide

Position 1 - Omniport 30

Feature	Description	Code	
		Pluggable Probes ¹⁾	Remote Probes ²⁾
Type	Hand-held meter	OMNIPORT30-T30	

Position 2 - Cable

Cable			
	2 m (6.6 ft)		HA010813
	5 m (16.4 ft)		HA010814
	10 m (32.8 ft)		HA010815

Position 3 - Probes

Humidity / Temperature			
	Logprobe 20 - Response time ≤30 s	LOGPROBE20-HTPC	
	Logprobe 20 - Response time ≤10 s	LOGPROBE20-HTPA	
	Logprobe 16 - HVAC probe		LOGPROBE16
	Logprobe 31 - High temperature probe		LOGPROBE31
	Logprobe 30 - Confined space probe		LOGPROBE30
Air Velocity	Logprobe 60 - Stainless steel probe, 0.4...20 m/s (80...4 000ft/min)		LOGPROBE60
	Logprobe 61 - Stainless steel probe, 0.12...2 m/s (24...400 ft/min)		LOGPROBE61
	Logprobe 65 - Polycarbonate probe, 0.4...20 m/s (80...4 000 ft/min)		LOGPROBE65

Position 4 - Carrying Case

Carrying case	For Omniport 30 and up to 4 probes	HA040906	HA040906
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- 1) Directly connected to device, cable is optional.
- 2) Cable is necessary.

Order Examples

Pluggable Probes

Feature	Code	Description
Position 1	OMNIPORT30-T30	Hand-held meter Omniport 30
Position 3	LOGPROBE20-HTPC	Humidity / temperarute probe, Response time ≤30 s
Position 4	HA040906	Carrying Case

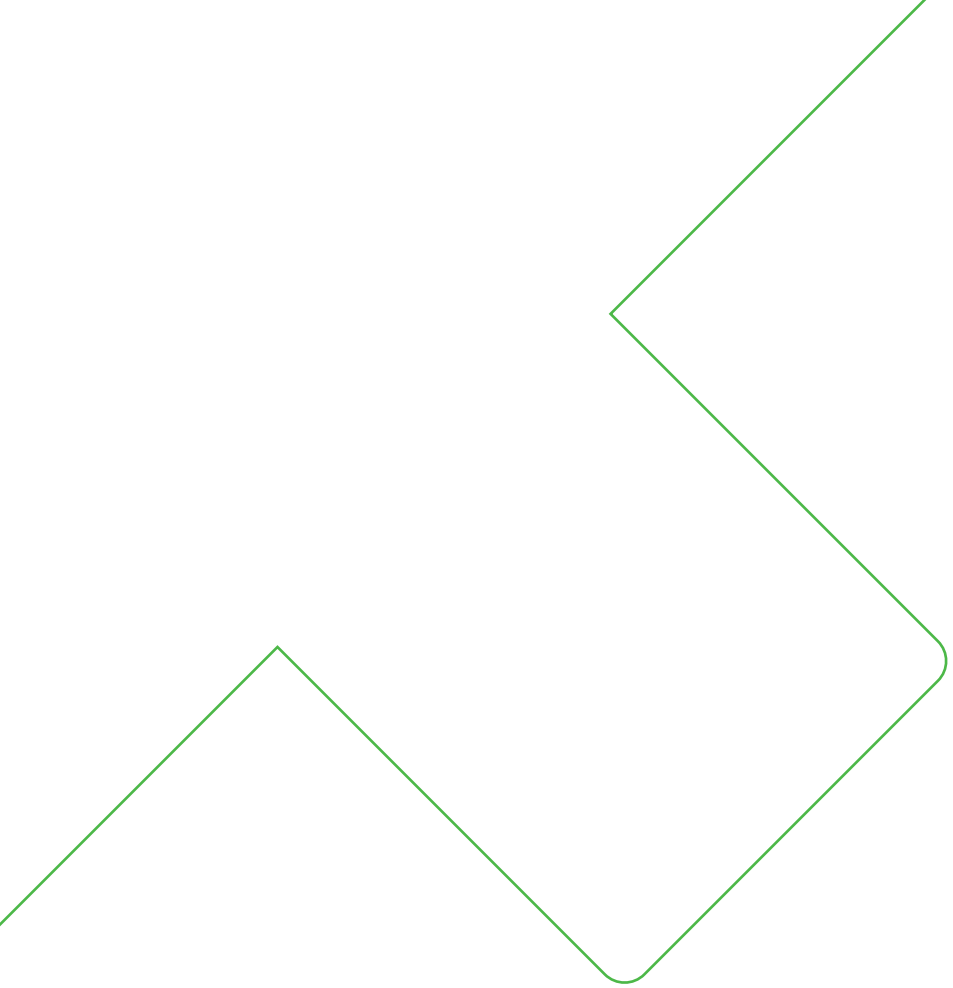
Remote Probes

Feature	Code	Description
Position 1	OMNIPORT30-T30	Hand-held meter Omniport 30
Position 2	HA010813	Cable 2 m (6.6 ft)
Position 3	LOGPROBE16 LOGPROBE61	HVAC probe Stainless steel probe, 0.12...2 m/s (24...400 ft/min)
Position 4	HA040906	Carrying Case

Accessories

For further information please refer to the [Accessories](#) datasheet.

Description	Code
Carrying case for omniport 30, 2 pluggable and 2 remote probes	HA040906
Protective Cover	HA040907
Membrane filter (for Ø 12 mm RH/T probes), Polycarbonate Body	HA010118
Metal grid filter (for Ø 12 mm RH/T probes), Polycarbonate Body	HA010119
Stainless steel sintered filter (for Ø 12 mm RH/T probes)	HA010103
Plastic grid filter (for Logprobe20-HTPA), Polycarbonate Body	HA010121
Cable for remote probes	2m (6.6 ft) HA010813 5m (16.4 ft) HA010814 10m (32.8 ft) HA010815
Humidity standards / Calibration device	Refer to data sheet Humidity Calibration Kit
SmartGraph3 - data management software	Free download at www.epluse.com/omniport30



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