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Datasheet Omniport 40

Multifunctional Hand-Held Meter

www.epluse.com

Omniport 40

Multifunctional Hand-Held Meter

The Omniport 40 is a multifunctional hand-held measuring device which accommodates E+E hand-held probes and process probes for various measurands such as temperature, humidity, moisture in oil, volume flow, dew point and CO_2.
It is ideal for portable on-spot measurement, as well as for process monitoring and predictive maintenance.
Two M12 connections enable the simultaneous measurement of different probes.

Outstanding Measurement Performance

The Omniport 40 compatible hand-held probes and process probes offer the well proven E+E accuracy, outstanding long-term stability, and resistance to environment influences. The probes can also be adjusted directly via the Omniport 40.
With properly calibrated probes, the Omniport 40 is appropriate as reference device for the check and calibration of field probes. For such purpose, the hand-held probes as well as the process probes can be supplied with an optional, traceable accredited calibration certificate.

Data Management Modes

The hand-held meter automatically recognizes the connected probes, and immediately displays the measured data. The device features various operation modes.

- In the on-spot measurement mode, the measured data is shown on the dot-matrix display; no data is stored
- In data logging mode, up to 1 million data sets are stored in the hand-held memory
- As data collector, the device gathers data from predefined measurement locations for off-line monitoring and predictive maintenance.

Robust and Easy to Use

With IP67 protection rating in combination with IK04 shock and impact resistance, the Omniport 40 is suitable for demanding, harsh industrial environment. The push buttons allow for the Omniport 40 to be operated even while wearing gloves. The measured values are indicated on the display in different modes depending on the applications.
The keypad and the self-explanatory symbols support intuitive operation, while the favourites function provides quick access to frequently used features. The user interface is available in 5 languages.

User Configurable

The Omniport 40 can be easily configured using a PC, a standard USB-C cable and the free PCS10 product configuration software. The configuration includes for example, the oil library and the settings for data collection.
The USB-C interface is also used to download log files in .csv format without the need to install any special software.

HA040909 Carrying case for Omniport 40, hand-held probes, process probes and accessories

Omniport 40 with hand-held probe AVP301H

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Features

M12 probe connection

- Large selection of hand-held and process probes
- Automatic detection of different probes
- Connection of up to 2 probes, remote for
  - Process probes up to 1 m
  - Hand-held probes up to 2 m

Functions

- On-spot measurement
- Data logging
- Data collecting
- Oil library
- Alarm with upper / lower thresholds and optional hysteresis
- Favourites function
- Hold function
- Relative function

User interface

- Dot-matrix / plain text display (backlit)
- Visible area 42 x 50 mm (1.65 x 1.97")
- Selection of display layouts:
  - Large-digit single values
  - Multi-line
  - Statistical values (min. / avg. / max.)
  - Diagram view
- Status bar
- Languages (selectable)

Bracket

- Built-in foldable stand
- Magnet

Power supply

- 4x AA rechargeable NiMH batteries (supplied)
- USB-C interface

Enclosure

- Protection rating IP67
- Shock and impact resistant

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Features

On Spot Measurement

Various display layouts include actual measured data and a freeze of these, the deviation from a reference level or the min/max/avg values. The user configurable graph provides a quick overview of the measurement history.

Data Logging

In data logging mode, the Omniport 40 stores the measured data together with the time stamp in a .csv file. The file can be downloaded to a PC without any additional software. The data logger settings include the logging interval and the selection of the variables to be recorded. The data recording is started and stopped manually with push buttons of the hand-held meter.

Data Collecting

The data collecting mode is ideal for off-line monitoring and predictive maintenance. In this mode, the Omniport 40 stores data from different measuring locations along a predefined route. The route can be defined on the PC and uploaded to the hand-held meter. The actual value can be measured at the different locations with hand-held probes or with fix installed process probes. The collected data can be downloaded to the PC with the free PCS10 Product Configuration Software.

Moisture-in-Oil Measurement and Oil Library

With moisture in oil hand-held probes or process probes, the Omniport 40 measures water activity, water content and temperature in transformer, lubrication and hydraulic oils. For correct measurement of the water content (ppm) and fast change between several oils, the Omniport 40 supports an oil library. The oil library can be easily created and maintained by adding and removing oil parameters on the PC and upload it to the hand-held meter with the PCS10 Product Configuration Software.

Alarm Function

The threshold values and hysteresis for alarm purposes can be set via the push buttons. Alarms are indicated acoustically and optically.

Power Supply

The NiMH rechargeable batteries included in the scope of supply can be charged via the USB-C cable. Additionally, the Omniport 40 can be operated with 4 AA batteries or permanent power supply. The display parameters such as backlight on/off, backlight intensity and sleep mode can be set for increasing battery life.

Accessories

The carrying case is used to safely transport and store the hand-held meter, probes and accessories. This prevents mechanical damage or contamination of the probes and ensures the optimum performance of the Omniport in the long term. The E+E humidity calibration kit is a simple method of calibrating humidity measuring devices and can be stored directly in the carrying case. For more information, see the E+E humidity calibration kit datasheet at www.epluse.com.

Accredited Traceable Calibration Certificate

Internationally recognised certificates for the calibration of measuring instruments from accredited laboratories document the traceability of the measurements to the International System of Units (SI). The E+E Elektronik calibration laboratory offers two levels of traceable calibrations.

- As a Designated Institute (DI) of the Republic of Austria, the E+E calibration laboratory maintains Austria's national measurement standards for humidity, dew point temperature, air velocity and CO_2. This authorises the E+E calibration laboratory to issue calibration certificates at the level of a National Metrological Institute (NMI).
- The E+E calibration laboratory is accredited by Akkreditierung Austria in accordance with DIN EN ISO/IEC 17025 with the identification number 0608. This allows the laboratory to issue ISO 17025 certificates for the measurands humidity, temperature, dew point temperature, air velocity, flow, pressure and CO_2.

Visit www.epluscal.com for detailed information on calibration and to enquire a certificate of accredited traceable calibration for the AVPxxxH, HTPxxxH, and MOPxxxH hand-held probes from the Designated Institute.

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Features

ISO 9001 Calibration Certificate

An ISO 9001 calibration certificate documents the comparative measurement of a device against high quality reference equipment (factory level standard). The comparison is performed in accordance with internal procedures that comply with ISO 9001 and provides information on the specimen's measuring accuracy. The reference equipment is traceable to national standards, however, the calibration process is not accredited. Therefore, an ISO 9001 calibration is neither traceable nor internationally comparable.

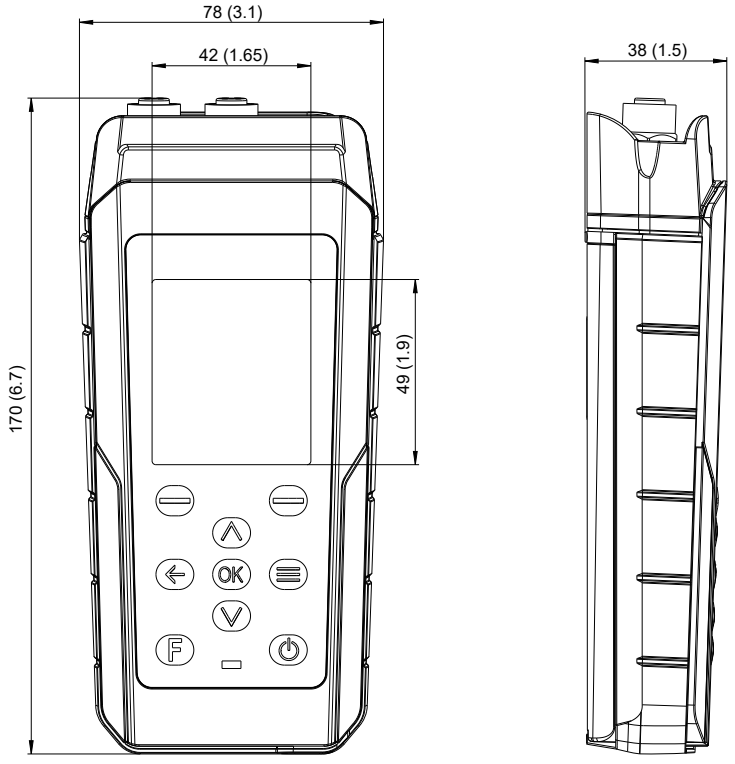
Visit www.epluse.com/iso9001cal for detailed information on calibration for the HTPxxxH and MOPxxxH hand-held probes and to enquire an ISO 9001 calibration certificate.

Further information on the available certificates for the process probes can be found in the respective data sheets.

Dimensions

Values in mm (inch)

Omniport 40



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Technical Data

Hand-Held Meter

Power supply	4x AA rechargeable NiMH batteries (included in the scope of supply)
Optional power supply	External 5 V DC via USB C (Power supply unit or PC-USB connection)
Power consumption, typ.	10 mA (excluding probes)
Battery runtime, typ.	>100 h continuous operation (fully charged, backlight switched off, hand-held probe). The battery runtime depends on the number and type of connected probes.
Automatic switch-off	Configurable. Automatically deactivated when an external power supply is connected
Connections	2x 5-pin M12 connection
PC connection	USB-C
Internal memory	Up to 1 million measuring points. A time and date stamp is assigned to each measuring point.
Type of logging	Automatic with manual start / stop
Logging interval	1, 5, 10, 15, 30 s / 1, 2, 5, 10, 15, 20, 30 min / 1 hour
Probe query	2 measurements/s
Real-time clock	Max. deviation 1 min / month at 25 °C (77 °F)
Display	140 x 160 dot-matrix LCD with backlight / visible area 42 x 50 mm (1.65 x 1.97") Choice of display layouts: ▪ Large-digit single values ▪ Multi-line ▪ Statistical information (min. / avg. / max.) ▪ Diagram view
User interface	Selectable in the menu (de, en, it, fr, es)
Dimensions	170 x 78 x 38 mm (6.69 x 3.07 x 1.50")
Weight	Approx. 370 g (approx. 13.05 oz)
Operating and storage conditions **Operation** **Storage**	 -5...+50 °C (+23...+122 °F), 0...85 %RH non-condensing -25...+65 °C (-12...+149 °F) (without rechargeable battery)
Enclosure **Material** **Protection rating**	ABS (acrylonitrile butadiene styrene) TPE side protection (thermoplastic elastomers) Polyester front panel IP67 (except for the probe connection)
Impact test	IK04 according to EN 60068-2-75
Drop test, 1m @ ±25 °C (3.28 ft @ ±45 °F)	EN 61010-1
Electromagnetic compatibility	EN IEC 61326-1:2021
Conformity	CE UKCA
Configuration software	PCS10 Product Configuration Software and USB-C connection cable Free download from www.epluse.com/pcs10

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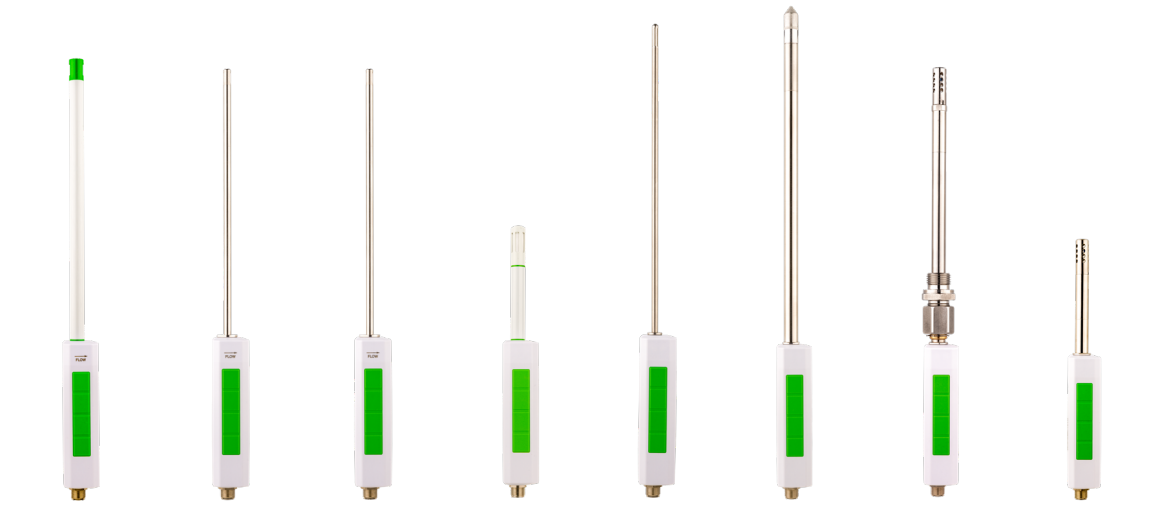
Hand-Held Probes

The hand-held probes are optimised for data collection and portable on-spot measurement. They combine the E+E outstanding measuring performance with low power requirements for long battery lifetime.
The hand-held probe fits ergonomically and is connected to the hand-held meter via the cable HA010813.



AVP201H AVP301H AVP401H HTP201H HTP401H HTP701H MOP301H MOP302H

Hand-held probes

AVP201H - Air Velocity and Temperature Hand-Held Probe for HVAC Applications
AVP301H - Air Velocity and Temperature Hand-Held Probe up to 20 m/s (4 000 ft/min)
AVP401H - Air Velocity and Temperature Hand-Held Probe up to 2 m/s (400 ft/min)
HTP201H - Humidity and Temperature Hand-Held Probe for HVAC Applications
HTP401H - Humidity and Temperature Hand-Held Probe up to 100 °C (212 ° F)
HTP701H - Humidity and Temperature Hand-Held Probe up to 180 °C (356 °F)
MOP301H - Moisture-In-Oil Immersion Hand-Held Probe up to 120 °C (248 °F)
MOP302H - Short Moisture-In-Oil Hand-Held Probe up to 120 °C (248 °F)

All hand-held probes are supplied with a test report in accordance with DIN EN 10204-2.2.
For dimensions and technical data of the hand-held probes, see the following pages.

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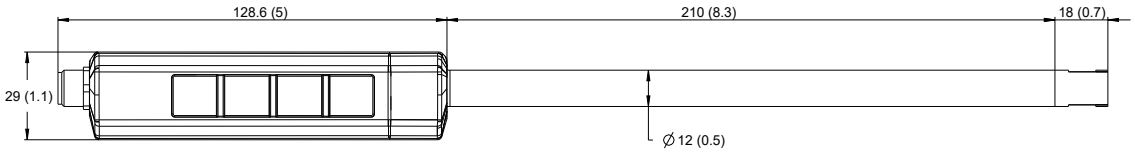
AVP201H

Air Velocity and Temperature Hand-Held Probe for HVAC Applications

Dimensions

Values in mm (inch)



Technical Data

Measuring range		0.4...20 m/s (80...4000 ft/min) 0...+50 °C (+32...+122 °F)
v accuracy		±(0.2 m/s (40 ft/min) + 3 % of mv) mv = measured value
T accuracy		±1 °C (±1.8 °F) (0...+50 °C (+32...+122 °F))
v response time τ_{90}		≤1.5 s
Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	PC (Polycarbonate)
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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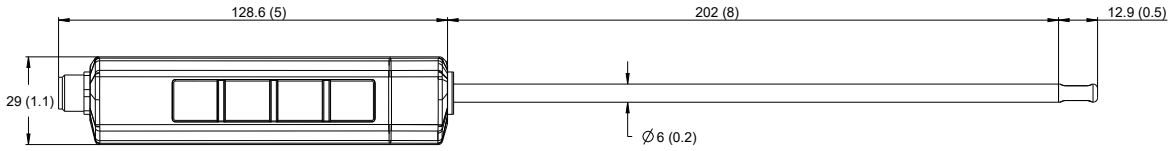
AVP301H

Air Velocity and Temperature Hand-Held Probe up to 20 m/s (4 000 ft/min)

Dimensions

Values in mm (inch)



Technical Data

Measuring range		0.4...20 m/s (80...4 000 ft/min) -20...+70 °C (-4...+158 °F)
v accuracy @ 20 °C (68 °F) and 1 013 hPa (14.7 psi), 45 %RH		±(0.2 m/s (40 ft/min) + 2 % of mv) mv = measured value
T accuracy		±0.7 °C (±1.26 °F), v > 0.5 m/s, 0...+50 °C (+32...+122 °F)
v response time τ_{90}		≤1.5 s
Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4404
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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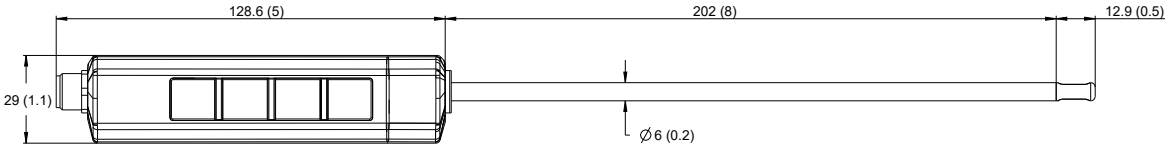
AVP401H

Air Velocity and Temperature Hand-Held Probe up to 2 m/s (400 ft/min)

Dimensions

Values in mm (inch)



Technische Daten

Measuring range		0.12...2 m/s (24...400 ft/min) -20...+70 °C (-4...+158 °F)
v accuracy @ 20 °C (68 °F) and 1 013 hPa (14.7 psi), 45 %RH		± (0.04 m/s (8 ft/min) + 1 % of mv) mv = measured value
T accuracy		±1.2 °C (±2.16 °F), v = 0.2...0.5 m/s, 0...+50 °C (+32...+122 °F)
v response time τ_{90}		≤1.5 s
Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4404
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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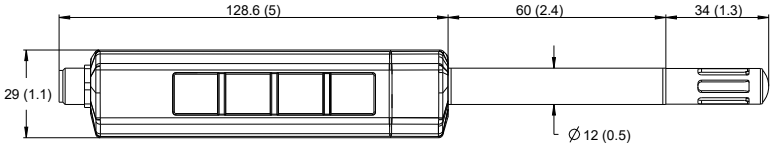
HTP201H

Humidity and Temperature Hand-Held Probe for HVAC Applications

Dimensions

Values in mm (inch)



Technical Data

Measuring range		0...100 %RH -20...+70 °C (-4...+158 °F)
RH accuracy @ 20 °C (68 °F)	**0...90 %RH** **90...100 %RH**	±2 %RH ±3 %RH
T accuracy	**@ 20 °C (68 °F)** **-20...+70 °C (-4...+158 °F) max.**	±0.2 °C (±0.36 °F) ±0.5 °C (±0.9 °F)
RH response time τ_{90}		≤7 s
RH temperature dependency, typ.	**Probe** **Electronics**	±0.03 %RH/°C (±0.0054 %RH/°F) ±0.05 %RH/°C (±0.09 %RH/°F)
T dependency, typ.	**Electronics**	±0.005 °C/°C (±0.005 °F/°F)
Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	PC (Polycarbonate)
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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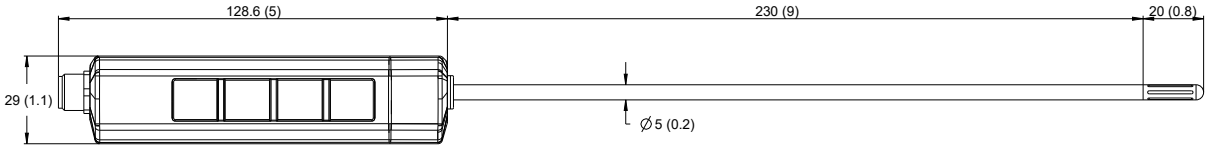
HTP401H

Humidity and Temperature Hand-Held Probe up to 100 °C (212 °F)

Dimensions

Values in mm (inch)



Technical Data

Measuring range		0...100 %RH -40...+100 °C (-40...+212 °F)
RH accuracy @ 20 °C (68 °F)	**0...90 %RH** **90...100 %RH**	±2 %RH ±3 %RH
T accuracy	**@ 20 °C (68 °F)** **-40...+100 °C max.**	±0.2 °C (±0.36 °F) ±0.6 °C (±1.08 °F)
RH response time τ_{90}		≤15 s
RH temperature dependency, typ.	**Probe** **Electronics**	±0.03 %RH/°C (±0.0054 %RH/°F) ±0.05 %RH/°C (±0.09 %RH/°F)
T dependency, typ.	**Electronics**	±0.005 °C/°C (±0.005 °F/°F)
Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4301, 1.4305
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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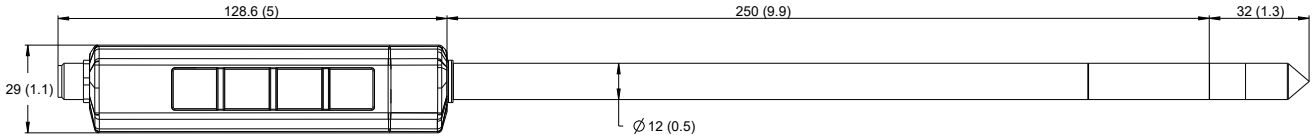
HTP701H

Humidity and Temperature Hand-Held Probe up to 180 °C (356 °F)

Dimensions

Values in mm (inch)



Technical Data

Measuring range		0...100 %RH -40...+180 °C (-40...+356 °F)
RH accuracy @ 20 °C (68 °F)	**0...90 %RH** **90...100 %RH.**	±2 %RH ±3 %RH
T accuracy **-40...+180 °C (-40...+356 °F) max.**	**@ 20 °C (68 °F)**	±0.2 °C (±0.36 °F) ±0.6 °C (±1.08 °F)
RH response time τ_{90}		≤30 s
RH temperature dependency, typ.	**Probe** **Electronics**	±0.03 %RH/°C (±0.0054 %RH/°F) ±0.05 %RH/°C (±0.09 %RH/°F)
T dependency, typ.	**Electronics**	±0.005 °C/°C (±0.005 °F/°F)
Temperature range (Probe handle)		
	Operation **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4404
Electromagnetic compatibility		EN 61326-1:2013 EN 61326-2-3:2013
Conformity		CE UKCA

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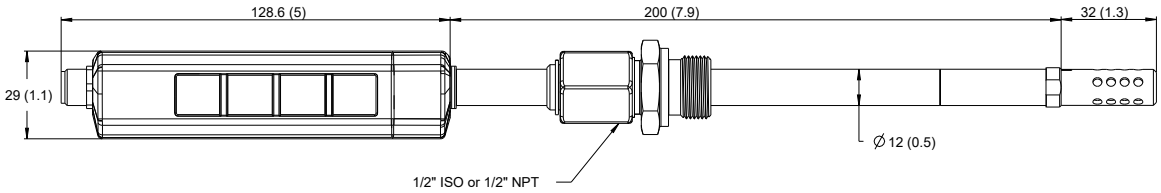
MOP301H

Moisture-in-oil immersion hand-held probe up to 120 °C (248 °F)

(with G 1/2" ISO or 1/2 NPT-slide fitting)

Dimensions

Values in mm (inch)

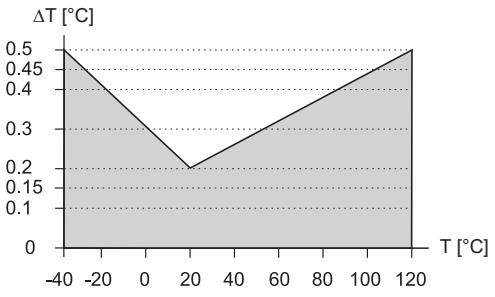


Water activity (aw) / water content (x)

Measuring range	**max.**	0...1 aw 0...100 000 ppm; actual range depends on the oil type, for non-mineral transformer oil, specific solubility parameters are needed (ppm output is valid in the range 0...+100 °C (+32...+212 °F))
Accuracy[1] (without hysteresis) @ 20 °C (68 °F)	**(0...0.9 aw)** **(0.9...1 aw)**	±0.02 aw ±0.03 aw
Aw temperature dependency, typ.	**Probe** **Electronics**	<±0.0003 [-]/°C (<±0.00017 [-]/°F) <±0.0005 [-]/°C (<±0.00028 [-]/°F)
Response time τ_{90}, typ. @ 20 °C (68 °F) in still oil		10 min.
Resolution		0.001 aw

1) Traceable to international standards, administrated by NIST, PTB, BEV...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation). The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Temperature (T)

Measuring range		-40...+120 °C (-40...+248 °F)
Accuracy[1]		
T dependency, typ.	**Electronics**	<±0.005 °C/°C (<±0.005 °F/°F)
Resolution		0.1 °C (32.18 °F)

1) Traceable to international standards, administrated by NIST, PTB, BEV,...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).
The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

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MOP301H

Moisture-in-oil immersion hand-held probe up to 120 °C (248 °F)

(with G 1/2" ISO or 1/2 NPT-slide fitting)

General

Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Pressure rating		0.01...20 bar (0.15...290 psi)
Probe handle	**Enclosure Material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4404

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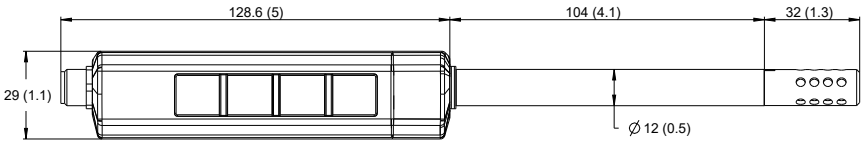
MOP302H

Short moisture-in-oil hand-held probe up to 120 °C (248 °F)

Dimensions

Values in mm (inch)

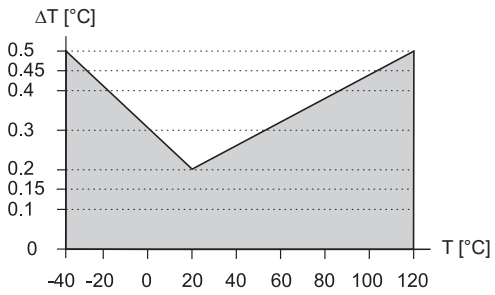


Water activity (aw) / water content (x)

Measuring range	**max.**	0...1 aw 0...100 000 ppm; actual range depends on the oil type, for non-mineral transformer oil, specific solubility parameters are needed (ppm output is valid in the range 0...100 °C (32...212 °F))
Accuracy[1] (without hysteresis) @ 20 °C (68 °F)	**(0...0.9 aw)** **(0.9...1 aw)**	 ±0.02 aw ±0.03 aw
Aw temperature dependency, typ.	**Probe** **Electronics**	<±0.0003 [-]/°C (<±0.00017 [-]/°F) <±0.0005 [-]/°C (<±0.00028 [-]/°F)
Response time τ_{90}, typ. @ 20 °C (68 °F) in still oil		10 min.
Resolution		0.001 aw

1) Traceable to international standards, administrated by NIST, PTB, BEV...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation). The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Temperature (T)

Measuring range		-40...+120 °C (-40...+248 °F)
Accuracy[1]		
T dependency, typ.	**Electronics**	<±0.005 °C/°C (<±0.005 °F/°F)
Resolution		0.1 °C (32.18 °F)

1) Traceable to international standards, administrated by NIST, PTB, BEV,...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).
The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Temperature range (Probe handle)	**Operation** **Storage**	0...+50 °C (+32...+122 °F) -20...+60 °C (-4...+140 °F)
Probe handle	**Enclosure Material** **Side protection material** **Protection rating**	ABS (Acrylonitrile butadiene styrene) TPU (Thermoplastic polyurethane) IP40
Probe	**Material**	Stainless steel 1.4404

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Process Probes

The Omniport 40 compatible process probes open up a wide range of industrial applications beyond the scope of the hand-held probes. Depending on their type and measurand, the process probes can be used for portable on-spot measurement or can be installed in the process. The process probes can be connected to the Omniport 40 with the cable HA040908.

EE671 EE680 EE872 TDS401H EE072 HTP501 MOP301 EE074

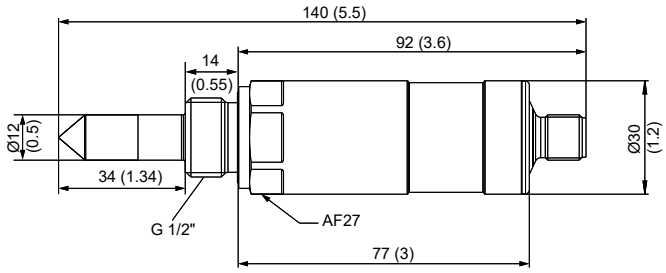
Process probes

EE671 - Air Velocity Probe: www.epluse.com/ee671.
EE680 - Air Velocity and Temperature Probe for Laminar Flow: www.epluse.com/ee680.
EE872 - Modular Probe for CO_2, Humidity, Temperature and Ambient Pressure: www.epluse.com/ee872.
TDS401H - Dew Point Sensor down to -60 °C (-76 °F): refer to the Omniport 40 Manual www.epluse.com/omniport40.
EE072 - Humidity and Temperature Probe: www.epluse.com/ee072.
HTP501 - Humidity and Temperature Probe up to 120 °C (248 °F): www.epluse.com/htp501.
MOP301 - Digital Moisture in Oil Probe up to 120 °C (248 °F): www.epluse.com/mop301.
EE074 - Temperature Probe: www.epluse.com/ee074.

TDS401H - Dew Point Sensor down to -60°C (-76 °F)

Dimensions

Values in mm (inch)



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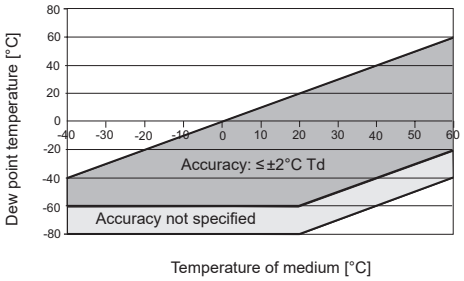
TDS401H

Dew Point Sensor down to -60 °C (-76 °F)

Dew Point Temperature (Td)

Measuring range	-60...60 °C Td (-76...140 °F Td)
Accuracy[1]	
Response time τ_{90}[2]	< 5 min for step -5 °C Td (+23 °F Td) → -50 °C Td (-58 °F Td) < 20 s for step -50 °C Td (-58 °F Td) → -5 °C Td (-23 °F Td)

1) Traceable to international standards, administrated by NIST, PTB, BEV,...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation). The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).
2) For the response time after each power-on of the sensor, see Omniport 40 User Manual, chapter TDS401H.

Volume Concentration (Wv)

Measuring range @ 1013 mbar (14.7 psi)	20...200 000 ppm
Accuracy @ 20 °C (68 °F) and 1013 mbar (14.7 psi)	±(5 ppm + 9 % from measured value)

Power supply class III USA & Canada: Class 2 supply necessary	18 - 28 V DC
Current consumption @ 24 V DC	<20 mA + load current during normal measurement 100 mA + load current during auto-calibration
Electrical connection	M12x1, 4 poles, stainless steel 1.4404, Omniport 40 connection cable for process probes (HA040908) required
Filter	Stainless steel sintered
Pressure working range	0...80 bar (0...1160 psi)
Humidity working range	0...100 %RH
Temperature working range	-40...+70 °C (-40...+158 °F)
Storage conditions	-40...+60 °C (-40...+140 °F) 0...95 %RH, non-condensing
Enclosure **Material** **Protection rating**	Stainless steel 1.4404 (AISI 316L) IP65 / NEMA 4X
Electromagnetic compatibility	EN 61326-1 EN 61326-2-3 Industrial environment FCC Part15 Class B ICES-003 Class B
Conformity	CE UKCA
Configuration and adjustment	PCS10 Product Configuration Software (free download from www.epluse.com/pcs10) and Modbus configuration adapter (HA011018) or via Omniport 40
Inspection certificate	According to DIN EN 10204-3.1

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Ordering Guide

Position 1 - Omniport 40

Feature	Description	Code	
		Hand-held probe	Process probe
Type	Hand-held meter without probe	OMNIPORT40-T30	

Position 2 - Probes

Humidity / Temperature	Humidity and temperature hand-held probe for HVAC applications	HTP201H	
	Humidity and temperature hand-held probe up to 100 °C (212 °F)	HTP401H	
	Humidity and temperature hand-held probe up to 180 °C (356 °F)	HTP701H	
	Humidity and temperature probe		EE072-[1)]
	Humidity and temperature probe up to 120 °C (248 °F)		HTP501-[1)]
Temperature	Temperature probe		EE074-[1)]
Air Velocity	Air velocity and temperature hand-held probe for HVAC applications	AVP201H	
	Air velocity and temperature hand-held probe up to 20 m/s (4 000 ft/min)	AVP301H	
	Air velocity and temperature hand-held probe up to 2 m/s (400 ft/min)	AVP401H	
	Air velocity probe		EE671-[1)]
	Air velocity and temperature probe for laminar flow		EE680-[1)]
Dew point temperature	Dew point sensor down to -60°C (-76 °F)		TDS401H-PA1
CO_2	Modular probe for CO_2, humidity, temperature and ambient pressure		EE872-[1)]
Moisture-in-oil	Moisture-in-oil immersion hand-held probe up to 120 °C (248 °F) G 1/2" ISO slide fitting	MOP301H-T10PA23	
	Moisture-in-oil immersion hand-held probe up to 120 °C (248 °F) 1/2" NPT slide fitting	MOP301H-T10PA25	
	Short moisture-in-oil hand-held probe up to 120 °C (248 °F)	MOP302H-T7	
	Digital moisture in oil probe up to 120 °C (248°F)		MOP301-[1)]

1) For the order code refer to the corresponding datasheets.

Position 3 - Cable

Connection cable for hand-held probe (unshielded)	2 m (6.6 ft)	HA010813	
Connection cable for process probe	1 m (3.28 ft)		HA040908

Position 4 - Carrying Case

Carrying Case	For Omniport 40, hand-held probes, process probes and accessories	HA040909

Order Example

Hand-Held Probe

Feature	Code	Description
Position 1	OMNIPORT40-T30	Hand-held meter Omniport 40 without probe
Position 2	HTP201H AVP401H	Humidity and temperature hand-held probe for HVAC applications Air velocity and temperature hand-held probe up to 2 m/s (400 ft/min)
Position 3	HA010813	Connection cable for hand-held probe, unshielded, 2 m (6.6 ft)
Position 4	HA040909	Carrying Case for Omniport 40, hand-held probes, process probes and accessories

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Accessories

For further information please refer to the Accessories datasheet.

Description	Code
Carrying Case for Omniport 40, hand-held probes, process probes and accessories	**HA040909**
Membrane filter cap, polycarbonate body, RAL7035 **Metal grid filter cap, polycarbonate body, RAL7035** **Stainless steel sintered filter cap for plastic probes** **Stainless steel sintered filter cap for metal probes**	**HA010101** **HA010106** **HA010103** **HA010117**
Connection cable for hand-held probe, unshielded, 5 poles, M12x1 plug ↔ socket 2 m (6.6 ft)	**HA010813**
Omniport 40 connection cable for process probes 1 m (3.28 ft)	**HA040908**
Humidity standards / Calibration device	**Refer to data sheet** Humidity Calibration Kit
Configuration software	**PCS10 Product Configuration Software** Free download from www.epluse.com/pcs10
Ball valve G 1/2" ISO	**HA050101**[1)]
Ball valve 1/2" NPT	**HA050104**[1)]

1) Suitable for MOP301H - Moisture-in-oil immersion hand-held probe up to 120 °C (248 °F)

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datasheet_Omniport40 | Version v1.1 | 04-2025
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