

## ДАТЧИКИ ТОЧКИ РОСЫ

DM 70

## ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астана +7(7172)727-132	Калуга (4842)92-23-67	Омск (3812) 21-46-40	Ставрополь (8652)20-65-13
Астрахань (8512) 99-46-04	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462) 77-98-35
Барнаул (3852) 73-04-60	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Белгород (4722)40-23-64	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Брянск (4832)59-03-52	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Владивосток (423)249-28-31	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Волгоград (844)278-03-48	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Вологда (8172)26-41-59	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Воронеж (473)204-51-73	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212) 92-98-04
Екатеринбург (343)384-55-89	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Иваново (4932)77-34-06	Набережные Челны (8552)20-53-41	Севастополь (8692) 22-31-93	Череповец (8202)49-02-64
Ижевск (3412)26-03-58	Нижегород (831)429-08-12	Симферополь (3652) 67-13-56	Ярославль (4852)69-52-93
Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54	

# DM70 Handheld Dewpoint Meter



## Features/Benefits

- Designed for industrial spot-checking and field calibration
- Three models: accurate measurement ranges from -60 to +60 °C (-76 ... +140 °F)
- Vaisala DRYCAP® Sensor with unique autocalibration function
- Low maintenance need due to superior long-term stability
- Sensor withstands condensation
- Fast response, enhanced by Sensor Purge option
- Intuitive user interface
- Data can be logged and transferred to a PC via MI70 Link software
- Compact, small and light
- NIST traceable calibration (certificate included)

*The Vaisala DRYCAP® Handheld Dewpoint Meter DM70 offers accurate and fast measurement for industrial dew point applications, such as compressed air, metal treatment and plastics drying.*

The Vaisala DRYCAP® Handheld Dewpoint Meter DM70 measures dew point temperature accurately over a wide measurement range. The probe may be inserted directly into pressurized processes, and it responds rapidly from ambient to process conditions. The sensor withstands condensation and fully recovers from getting wet. The DM70 meter is suitable for direct process dew point measurement in a wide temperature and pressure range. For more demanding applications, the DM70 can be used with the Vaisala sampling cell adapters, or with the Vaisala DRYCAP® Sampling System DSS70A.

## Vaisala DRYCAP® Technology

The DM70 is fitted with the Vaisala DRYCAP® Sensor. The

sensor provides reliable, stable and high-performance dew point measurement. Autocalibration detects on-line possible measurement inaccuracies and automatically corrects dry-end drift in the calibration curve.

## Three Probes to Choose From

Three probe models, all with auto-calibration, are available. The A and B models are both general purpose probes. The C model is specifically developed for SF<sub>6</sub> gas. The B and C probe models have an additional Sensor Purge feature that heats and dries the sensor, making the response from ambient to dry conditions exceptionally fast.

## Intuitive User Interface

The DM70 has a versatile and easy-

to-use, menu-based user interface, a clear graphical LCD display, and data-logging capability. It can also be used as a tool for reading the output of fixed Vaisala dew point transmitters, like the DMT242, DMT132, DMT143, DMT152 and DMT340.

The DM70 displays one to three parameters at a time, either numerically or graphically. Several humidity units can be selected. In addition, the DM70 includes conversion from gas pressure dew point to ambient pressure dew point. An analog output is also available.

## MI70 Link

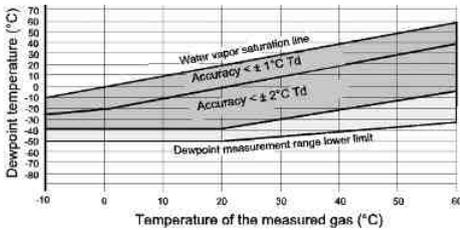
The optional MI70 Link Windows® software and the USB connection cable form a practical tool for transferring logged data and real time measurement data from the DM70 to a PC.

# Technical Data

## Measured Variables, DMP74A Probe

### DEW POINT

Measurement range (typical) -50 ... +60 °C (-58 ... +140 °F)  
 Accuracy (A probe) -40...+60 °C ±2 °C (±3.6 °F)  
 (see graph)



*Dew point accuracy vs. measurement conditions*

### Response time

flow rate 0.2 m/s, 1 bar pressure, +20 °C (+68 °F) 63% [90%]  
 0 → -40 °C T<sub>d</sub> (32 → -40 °F T<sub>d</sub>) 20 s [120 s]  
 -40 → 0 °C T<sub>d</sub> (-40 → 32 °F T<sub>d</sub>) 10 s [20 s]

Dew point sensor Vaisala DRYCAP® 180S

### TEMPERATURE

Measurement range -10 ... +60 °C (+14 ... +140 °F)  
 Accuracy at +20 °C (+68 °F) ±0.2 °C (±0.36 °F)  
 Typical temperature dependence of electronics ±0.005 °C/°C (±0.005 °F/°F)

Temperature sensor Pt100 RTD Class F0.1 IEC 60751

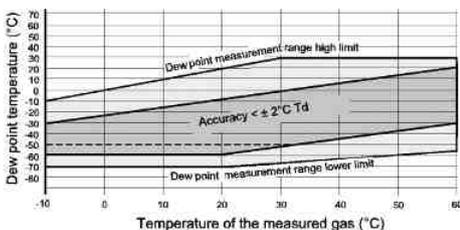
### OTHER VARIABLES AVAILABLE

Dew point converted to atmospheric pressure, ppm volume and ppm weight concentration, absolute humidity, mixing ratio, relative humidity

## Measured Variables, DMP74B and DMP74C (for SF6 gas) Probes

### DEW POINT

Measurement range (typical) -70 ... +30 °C (-94 ... +86 °F)  
 Accuracy (B and C probe) -60...+20 °C ±2 °C (±3.6 °F)  
 (see graph)



*Dew point accuracy vs. measurement conditions*

### Dotted line:

For DMP74C the ±2 °C accuracy range is limited to -50 °C T<sub>d</sub> when used in SF6 gas.

### Response time

flow rate 0.2 m/s, 1 bar pressure, +20 °C (+68 °F) 63% [90%]  
 0 → -60 °C T<sub>d</sub> (32 → -76 °F T<sub>d</sub>) 50 s [340 s]  
 -60 → 0 °C T<sub>d</sub> (-76 → 32 °F T<sub>d</sub>) 10 s [20 s]

Dew point sensor Vaisala DRYCAP® 180M  
 TEMPERATURE  
 Measurement range -10 ... +60 °C (+14 ... +140 °F)  
 Accuracy at +20 °C (+68 °F) ±0.2 °C (±0.36 °F)  
 Typical temperature dependence of electronics ±0.005 °C/°C (±0.005 °F/°F)  
 Temperature sensor Pt100 RTD Class F0.1 IEC 60751  
 OTHER VARIABLES AVAILABLE  
 Dew point converted to atmospheric pressure, ppm volume and ppm weight concentration

## All Probe Models

Operating temperature -10 ... +60 °C (+14 ... +140 °F)  
 Operating pressure  
 DMP74A, DMP74B 0 ... 20 bara (0 ... 290 psia)  
 DMP74C 0 ... 10 bara (0 ... 150 psia)  
 Sample flow rate no effect for measurement accuracy  
 Measured gases non-corrosive gases  
 Probe material (wetted parts) Stainless steel (AISI 316L)  
 Sensor protection Sintered filter (AISI 316L)  
 partno: HM47280  
 Mechanical connection G1/2" ISO228-1 thread  
 with bonded seal ring (U-seal)  
 Housing classification IP65 (NEMA 4)  
 Weight 350 g

## MI70 Measurement Indicator General

Menu languages English, Chinese, Spanish, Russian, French, Japanese, German, Swedish, Finnish,  
 Display LCD with backlight  
 Graphic trend display of any parameter  
 Character height up to 16 mm  
 Max. no of probes 2  
 Power supply Rechargeable NiMH battery pack with AC-adaptor  
 or 4xAA size alkalines, type IEC LR6  
 Analog output 0...1 VDC  
 Output resolution 0.6 mV  
 PC interface MI70 Link software with USB or serial port cable  
 Data logging capacity 2700 points  
 Alarm Audible alarm function  
 Operating temperature range -10...+40 °C (+14...+104 °F)  
 Storage temperature range -40 ... +70 °C (-40 ... +158 °F)  
 Operating humidity range 0 ... 100 % RH, non-condensing  
 Housing classification IP54  
 Housing materials ABS/PC blend  
 Weight 400 g  
 Battery operation time with DMP74 probe  
 continuous use 48 h typical at +20 °C (+68 °F)  
 data logging use up to a month, depending on logging interval  
 Electromagnetic compatibility EN 61326-1, Generic Environment

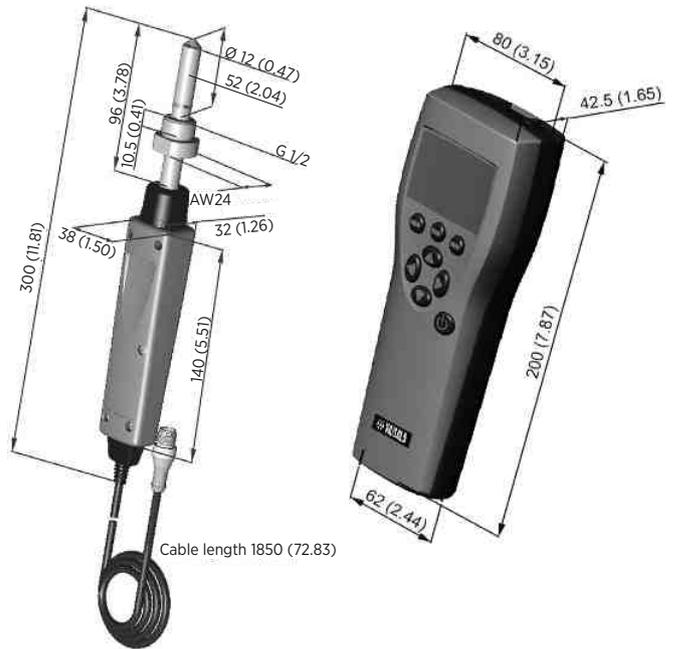
# Technical Data

## Accessories

Connection cables for fixed Vaisala dew point transmitters	
for DMT242 transmitter	27160ZZ
for DMT340 series	211339
for DMT152, DMT143, and DMT132 transmitters	219980
for DMT142 transmitter	211917ZZ
Weatherproof Carrying Case	MI70CASE3
Soft Carrying Case	MI70SOFTCASE
MI70 Link software with USB cable	219687
MI70 Link software with serial port cable	MI70LINK
Analog output cable	27168ZZ
10 m (32.81 ft) extension cable for probe	213107SP
Portable Sampling System	DSS70A
(see separate data sheet)	

## Dimensions

Dimensions in mm (inches)



## По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72  
Астана +7(7172)727-132  
Астрахань (8512) 99-46-04  
Барнаул (3852) 73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Казань (843)206-01-48

Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81

Новосибирск (383)227-86-73  
Омск (3812) 21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692) 22-31-93  
Симферополь (3652) 67-13-56  
Смоленск (4812)29-41-54

Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462) 77-98-35  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212) 92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

сайт: [vsa.nt-rt.ru](http://vsa.nt-rt.ru) || эл. почта: [vgs@nt-rt.ru](mailto:vgs@nt-rt.ru)