



# Humidity Temperature Meteorological Probe

with HygroClip plug-in module and fast response temperature probe

## MP100H

### HYGROCLIP®



ROTRONIC - Your  
SCS Calibration Laboratory  
for Relative Humidity  
Accred. Reg N °. 065



- Reliable data acquisition and long term calibration-free operation
- Well proven ROTRONIC HYGROMER™ humidity sensor resists condensation and contaminants
- Temperature measurement with separate precision RTD probe provides fast response and high accuracy
- Linear voltage or current output signals for transmission over long distances
- Fully interchangeable HygroClip module is quickly replaced in the field with no loss of accuracy and no calibration

## MP100H



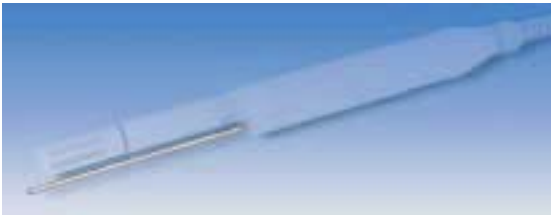
The MP100H is an advanced probe that offers high accuracy and fast response for meteorological applications. In the standard units, humidity is measured with the plug-in HygroClip digital probe and temperature is measured by a separate fast response RTD probe. The MP100H has a linear output for humidity and a 3-wire bridge measurement for temperature.

## All weather protected



The barrel of the MP100H is designed to protect the internal electronics under all weather conditions. All connectors and cable entry points have special seals to prevent moisture entry. The electronics are conformal coated for protection against high humidity conditions. Once the electronics have been factory adjusted and calibrated, there is never a need to open the barrel. Calibration of the HygroClip is fully digital (no potentiometers) and the separate RTD is extremely stable.

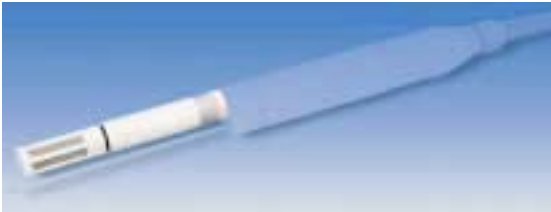
## Separate temperature probe



The separate temperature probe consists of a Pt100 RTD protected by a stainless steel tube. This probe provides fast response and can easily be calibrated in a bath after removing the HygroClip.

The standard probe uses a 1/3 DIN RTD with a maximum deviation of  $\pm 0.1^\circ\text{C}$  at  $0^\circ\text{C}$  from the DIN standard.

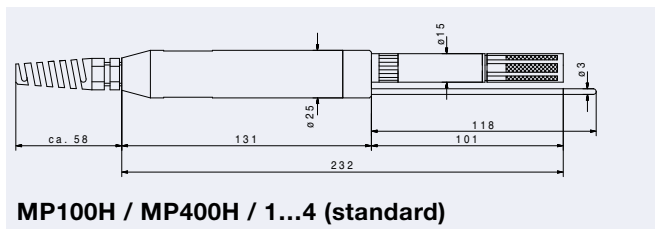
## HygroClip-S3



The HygroClip offers true, 100% interchangeability. Unlike products that only feature a plug-in or interchangeable sensor, the HygroClip can be replaced in seconds without any calibration and without any loss of accuracy. Inside the HygroClip, a non-volatile memory retains the calibration data, sensor characteristics, serial number, etc. ROTRONIC offers easy-to-use software and accessories for in-house calibration. If you do not wish to calibrate, or if the HygroClip needs replacement, use the unique HygroClip exchange program. This plan is supported by the ROTRONIC worldwide distribution network. The fully calibrated replacement HygroClip-R3 always contains a new humidity sensor and a brand new filter.



## Dimensional drawings (mm)



## Technical data

		<b>MP100H</b>	
<b>HygroClip S3 humidity temperature probe</b>		HYGROMER™ C94 capacitive humidity sensor and 1/3 DIN RTD	
<b>HygroClip sensor protection</b>		Wire mesh filter (standard) / foam filter (optional)	
<b>Separate temperature probe (T2)</b>		Pt100 1/3 DIN (standard) 118 x 3 mm	
<b>Operating / measuring range</b>		-40...+60 °C, 0...100 %RH	
<b>Accuracy at 23°C/0 °C respectively</b>		±1.5 %RH and ±0.1°C (valid for 1/3 DIN RTD)	
<b>Voltage supply</b>		3.6...35 VDC (5V nominal)	
<b>Current consumption incl. HygroClip</b>		10 mA	
<b>Output signal</b>	Humidity	0...1 V = 0...100 %RH	4...20 mA = 0...100 %RH
	Temperature - direct	3-wire	
<b>Cable length compensation</b>		effective up to 100m/300ft	
<b>Load (active analog outputs)</b>		>1000 Ohm	



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