

## MP102H/402H

### For interchangeable probe HC2A-S3 / HC2A-S3A

The MP102H and MP402H are meteorology transmitters with an analog output and RS-485 interface. Humidity and temperature are measured with an interchangeable HygroClip2 HC2A-S3 / HC2A-S3A probe. Temperature measurement can be enhanced by an external PT100 in various accuracy classes.

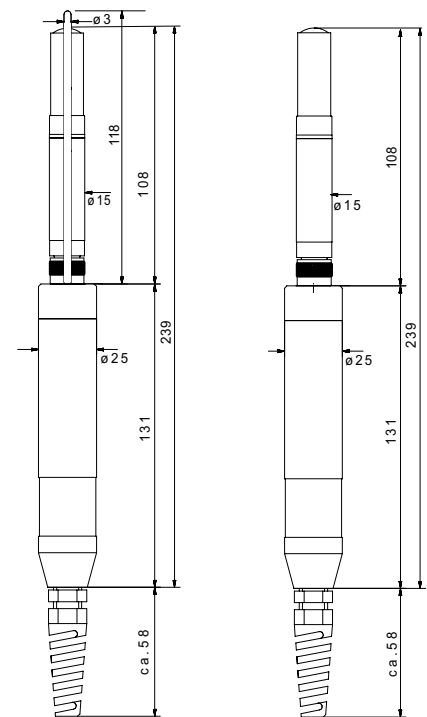
### APPLICATIONS

Weather stations, snow guns, status monitoring of roads, bridges and airports, snow and ice warning systems, research in very remote areas.

### FEATURES

- Humidity and temperature measurement with interchangeable HC2A-S3/HC2A-S3A probes (order separately)
- Calculates all psychrometric parameters
- Direct PT100 sensors available as an option
- Voltage or current output signal
- Freely scalable
- High long-term stability
- Service interface (UART) to PCB
- RS-485 interface
- Connection with cable (3...99 m) with open ends or Tuchel T7 connector

Order code	MP102H	MP402H
Output	Voltage output 0...1/5/10 VDC	Current output 0(4)...20 mA
Range of application	-40..80 °C / 0..100 %rh	
Power Supply	5...24 VDC	15...24 VDC



With external PT100

Without external PT100

### Compatible

- Meteorology probes HC2A-S3 / HC2A-S3H / HC2A-S3A
- Actively ventilated shield RS12T / RS24T
- Naturally ventilated shield AC1003

### Delivery package

- Short instruction manual

Technical data	MP102H	MP402H
<b>General</b>		
Parameters	Humidity and temperature Calculates all psychrometric parameters	
Housing material	Polyoxymethylene	
IP protection	IP65	
Weight	150 g	
Supply voltage	5...24 VDC (0...1 V output) 10...24 VDC (0...5 V output) 20...24 VDC (0...10 V output)	15...24 VDC
Current consumption	<50 mA	
Application temp. housing / electronics	-40...80 °C	
Cable length compensation	Up to 99 m	
<b>Humidity measurement</b>		
Sensor	ROTRONIC HYGROMER® IN-1 (HC2A-S3) / ROTRONIC HYGROMER HM1-SK (HC2A-S3A)	
Measurement range	0...100 %rh (HC2A-S3(A))	
Accuracy at 10...30 °C	±0.8 %rh (HC2A-S3(A))	
Response time	<15 s τ63 (63 % increase 35...80 %rh) without filter	
<b>Temperature measurement</b>		
Sensor	PT100 1/3 Class B (HC2A-S3(A))	
Measurement range	-50...100 °C (HC2A-S3) / -50...80 °C HC2A-S3A	
Accuracy at 10...30 °C	±0.1 K (HC2A-S3(A))	
Response time	<15 s τ63	
Direct PT100 (optional)	PT100 1/3 Class B PT100 1/5 Class B PT100 1/10 Class B	
<b>Analog output</b>		
Current	N/A	0(4)...20 mA
Voltage	0...1 VDC 0...5 VDC 0...10 VDC	N/A
<b>Digital output</b>		
	RS-485 UART	