HYGROCLIP XD

AIR
CHIP

TECHNOLOGY

THE MOST VERSATILE HYGROCLIP2 PROBE YET

LATEST AIRCHIP 3000 DIGITAL TECHNOLOGY

- Measures relative humidity & temperature
- Calculates dew/frost point
- Power supply range: 5...16 VAC / 5...24 VDC
- Outputs: 0...1 V / 0...5 V / 0...10 V (standard probes)
  0...1 V / 0...5 V / 0...10 V / 0...20 mA / 4...20 mA (industrial probes)
- Voltage outputs configurable via software
- Highest precision and reproducibility
- Excellent long-term stability ‹1 %RH / year
- Digital interface for calibration and measurement processing

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MEASUREMENT SOLUTIONS

TECHNICAL INFORMATION

Versions

The HygroClip XD is available as standard probe or as industrial probe with remote sensor. The standard versions come in the colors black or white.

Standard versions

XD33A-S3X	Standard housing, black 0…1 V, -40…60 °C, UART
XD33A-W3X	Standard housing, white 0…1 V, -40…60 °C, UART

Industrial versions

XD33-SC12D6	Industrial housing, 2 m cable 0…1 V, 0…150 °C, UART
XD33-SC15D6	Industrial housing, 5 m cable 0…1 V, 0…150 °C, UART

Other configurations on request

Analog output	0…1 / 5 / 10 V, 0 / 4…20 mA
Interface	UART or RS-485
Scale	Freely scalable

Typical accessories

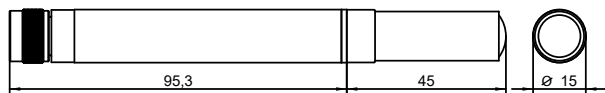|	
XD-AC3001	Service cable to PC
E2-02XX	Extension cable with open ends, 2 m long, black
E3-02XX	Extension cable with open ends, 2 m long, white
HW4	HW4 software for adjustment of the probe
NSP-PCB-PE40	Polyethylene filter, gray
SP-S15	Steel sinter filter (ind. probe)
ER-15	Calibration device
EAxx-SCS	Humidity standards (xx = %RH)

Note:

The XD probe is **NOT** compatible with ROTRONIC transmitters, data loggers, handheld instruments and active cables.
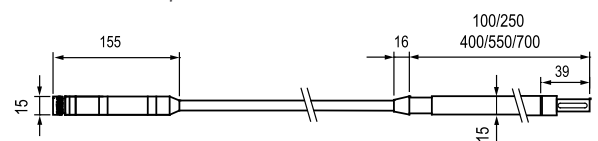
	Standard probe	Industrial probe
General specifications		
Device type	Humidity / Temperature probe	
Range of application measurement probe	-40…85 °C / 0…100 %RH	-100…200 °C * / 0…100 %RH ***Short-term peak load**
Accuracy at 23 °C, ± 5 K	0.8 %RH / 0.2 K @ 5…24 VDC Adjusted at 23 °C and 10, 35, 80 %RH @ 5 VDC	
Outputs	Analog (voltage / current), digital (UART / RS-485)	
Power supply	5…16 VAC / 5…24 VDC (0…1 V) 12…16 VAC / 16…24 VDC (all kind of output signals)	
IP protection	IP65	
Technical information		
Current consumption	7 mA (typical) @ 24 VDC, 0…10 V 12 mA (typical) @ 5 VDC, 0…1 V	
Range of application electronics	-40…85 °C / 0…100 %RH	
Functions		
Psychrometric calculations	Dew point / Frost point	
Adjustment via software	Single point, multipoint, dew point (%RH / °C), with service cable	
Probe		
Filter	Polyethylene, 40 µm	No filter ex works
Filter carrier	Polycarbonate	Brass, nickel-plated
Maximum wind velocity	20 m/s, with polyethylene filter	3 m/s, without filter
Length of extension cable	2 m / 5 m	
Maintenance / Calibration	Annual calibration (recommended)	
Humidity sensor	HT-1	IN-1
Temperature sensor	Pt100 1/3 Class B	
Analog output	0…1 / 5 / 10 V	0…1 / 5 / 10 V 0 / 4…20 mA
Digital output	UART or RS-485	
Analog output	Accuracy at 23 °C, ‹ 1 mV (1 V) / ‹10 mV (10 V) / ‹20 µA	
Response time τ63	‹15 s	
Long-term stability, humidity sensor	‹1 %RH / year	
Conformities / Housing		
CE / EMC compatibility	CE conformant 2014/30/EU	
FDA / GAMP conformity	21 CFR Part 11 / GAMP 5	
Housing material	Polycarbonate	PEEK
Dimensions probe head		
Diameter	⌀ 15 mm	
Length	140 mm	100 mm / 250 mm 400 mm / 550 mm / 700 mm
Sensor cable	–	2 m / 5 m

Dimensions

Standard probe

Industrial probe

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