

# ROTRONIC HYGROCLIP® XD

Mit dem ROTRONIC HygroClip XD haben Sie ein Spitzenprodukt erworben, das den gängigen Normen entspricht. Bei Beachtung der unten aufgeführten Montage- und Bedienungshinweise funktioniert der HygroClip über Jahre perfekt.

**Einsatzbereich Feuchte:** 0...100 %rF

**Einsatzbereich Temperatur:**

XDxxA-xxx -40...85 °C

XDxx-xCxxxx -100...190 °C / 200 °C \*

\* Maximale Spitzenbelastung über 100h

**Standard Messbereiche:**

**Alle Parameter sind frei skalierbar**

Feuchte: 0...100 %rF = 0...1 V

Temperatur: -40...60 °C = 0...1 V

Tau- / Frostpunkt: Einstellbar via PC & HW4 Software

**Technische Daten:**

Versorgung: 5...16 VAC / 5...24 VDC (0...1 V)

13...16 VAC / 16...24 VDC

(alle Ausgangsvarianten)

~7 mA @ 24 VDC / ~15 mA @ 5 VDC

Stromverbrauch: 1 kΩ/V

Ausgangsbürde: max. 5 m

Kabellänge: IP65 (ausser Sensorbereich)

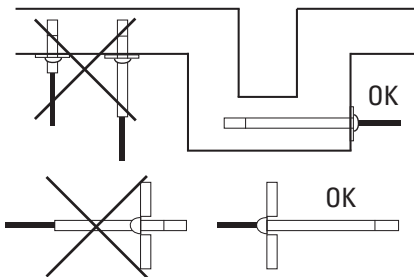
Schutzart: 0...1 VDC / 0...5 VDC / 0...10 VDC

Analoge Ausgänge: 0...20 mA / 4...20 mA (abgesetzter Sensor)

**Genauigkeit bei 23 °C ±5 K:** ±0,8 %rF / ±0,2 K

**Montage**

Der Fühler soll so weit wie möglich in das zu messende Klima eingetaucht sein.



**Anschluss**

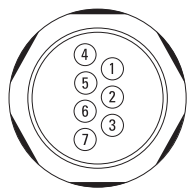
Setzen Sie den HygroClip XD auf den Gegenstecker des Anschlusskabels. Achten Sie darauf, dass die Sperrnocken richtig ausgerichtet sind. Ziehen Sie die Rändelmutter von Hand fest. Es sind Verlängerungskabel in den Längen 10 m, 20 m, 50 m erhältlich.

**Justierung / Kalibrierung**

Die Fühler sind ab Werk justiert. Wir empfehlen je nach Einsatz eine Kalibrierung nach ca. einem Jahr. Dies kann vor Ort mit ROTRONIC SCS Feuchte-Standards durch Sie erfolgen. Die Handhabung entnehmen Sie der den Feuchtestandards beiliegenden Anleitung. Betreffend Justierung kontaktieren Sie ROTRONIC oder unsere Vertretung.

Weitere Information unter [www.rotronic.com](http://www.rotronic.com)

Elektrische Anschlüsse:	1 grün	V+
(Stecker Aussenansicht)	2 grau	GND (Digital und Versorgung)
	3 rot	RXD (UART)
	4 blau	TXD (UART)
	5 weiss	Analogsignal Feuchte (0...100 %rF)
	6 braun	Analogsignal Temperatur (-40...60 °C)
	7 gelb	AGND (analog ground)



# ROTRONIC HYGROCLIP® XD

Your ROTRONIC HygroClip XD is a leading-edge product that meets all established standards. It will work perfectly for many years if you follow the assembly and operating guidelines below.

**Operating range humidity:** 0...100 %RH

**Operating range temperature:**

XDxxA-xxx -40...85 °C

XDxx-xCxxxx -100...190 °C / 200 °C \*

\* Short term peak load during 100h

**Standard measuring ranges:**

**All parameters are freely scaleable**

Humidity: 0...100 %RH = 0...1 V

Temperature: -40...60 °C = 0...1 V

Dew- / frost point: Selectable by PC using HW4 software

**Technical data:**

Supply: 5...16 VAC / 5...24 VDC (0...1 V)

13...16 VAC / 16...24 VDC

(all kind of output signals)

Power consumption: ~7 mA @ 24 VDC / ~15 mA @ 5 VDC

Load: 1 kΩ/V

Cable length: max. 5 m

Protection rating: IP65 (except sensor area)

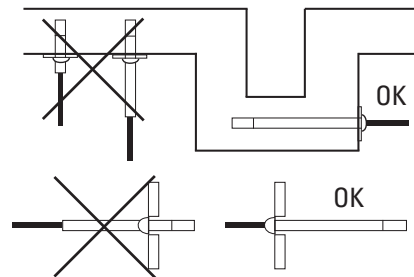
Analogue Outputs: 0...1 VDC / 0...5 VDC / 0...10 VDC

0...20 mA / 4...20 mA (deposited sensor)

**Precision at 23 °C ±5 K:** ±0.8 %RH / ±0.2 K

**Mounting**

The probe should be immersed in the climate that is to be measured as far as possible.



**Connection**

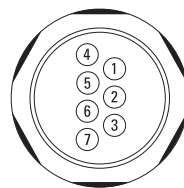
Plug the HygroClip XD on the mating connector of the cable. Make sure that the catches are aligned correctly. Tighten the knurled nut by hand. Extension cables are available with lengths of 10 m, 20 m, 50 m.

**Adjustment / Calibration**

The probes are adjusted in our factory before delivery. We recommend calibration after about one year depending on use. You can do this yourself on-site with the ROTRONIC SCS humidity standards. Please refer to the instructions included with the humidity standards. Contact ROTRONIC or our representatives concerning adjustment.

Further information can be obtained at [www.rotronic.com](http://www.rotronic.com)

Electrical connections:	1 green	V+
(outside view)	2 gray	GND (digital and power)
	3 red	RXD (UART)
	4 blue	TXD (UART)
	5 white	Analog signal, humidity (0...100 %RH)
	6 brown	Analog signal, temperature (-40...60 °C)
	7 yellow	AGND (analog ground)



ROTRONIC AG, CH-8303 Bassersdorf

Tel. +41 44 838 11 44, [www.rotronic.com](http://www.rotronic.com)

ROTRONIC Messgeräte GmbH, D-76275 Ettlingen

Tel. +49 7243 383 250, [www.rotronic.de](http://www.rotronic.de)

ROTRONIC SARL, 56, F-77183 Croissy Beaubourg

Tél. +33 1 60 95 07 10, [www.rotronic.fr](http://www.rotronic.fr)

ROTRONIC Italia srl, I-20157 Milano

Tel. +39 2 39 00 71 90, [www.rotronic.it](http://www.rotronic.it)

ROTRONIC Instruments (UK) Ltd, West Sussex RH10 9EE

Phone +44 1293 571000, [www.rotronic.co.uk](http://www.rotronic.co.uk)

ROTRONIC Instrument Corp, NY 11788, USA

Phone +1 631 427-3898, [www.rotronic-usa.com](http://www.rotronic-usa.com)

ROTRONIC Canada Inc., Canada L8W 3P7

Phone +1 905 754 5164, [www.rotronic.ca](http://www.rotronic.ca)

ROTRONIC Instruments Pte. Ltd., Singapore 159836

Phone +65 6376 2107, [www.rotronic.sg](http://www.rotronic.sg)

ROTRONIC Shanghai Rep. Office, Shanghai 200233, China

Phone +86 40 08162018, [www.rotronic.cn](http://www.rotronic.cn)

# ROTRONIC HYGROCLIP® XD

En achetant le ROTRONIC HygroClip XD, vous avez acquis un produit de pointe répondant aux normes courantes. L'HygroClip fonctionnera parfaitement pendant de longues années si vous observez les instructions de montage et d'emploi ci-dessous.

**Gamme d'utilisation (humidité):** 0...100 %HR  
**Gamme d'utilisation (température):**  
 XDxxA-xxx -40...85 °C  
 XDxx-xCxxxx -100...190 °C / 200 °C \*

\* Pointe de charge de courte durée durant 100 h

## Gammes de mesure standard:

### Les paramètres sont modifiables librement

Humidité: 0...100 %HR = 0...1 V  
 Température: -40...60 °C = 0...1 V  
 Point de rosée / de gel: Au choix, par PC et logiciel HW4

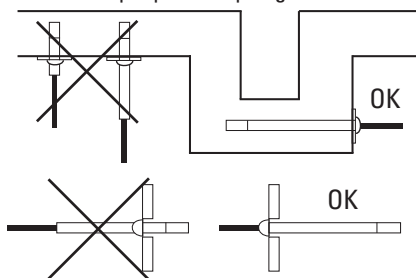
### Caractéristiques techniques:

Alimentation: 5...16 VAC / 5...24 VDC (0...1 V)  
 13...16 VAC / 16...24 VDC  
 (toutes les versions de sortie)  
 Consommation d'électricité: ~7 mA @ 24 VDC / ~15 mA @ 5 VDC  
 Charge de sortie: 1 kΩ/V  
 Longueur de câble: max. 5 m  
 Protection: IP65 (sauf zone d'élément sensible)  
 Sorties analogiques: 0...1 VDC / 0...5 VDC / 0...10 VDC  
 0...20 mA / 4...20 mA (sensor étagée)

**Précision à 23 °C ±5 K:** ±0,8 %HR / ±0,2 K

### Montage:

Le capteur doit être autant que possible plongé dans l'ambiance à mesurer.



### Raccordement

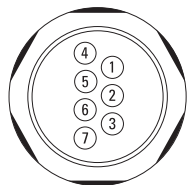
Placez l'HygroClip XD sur la contre-fiche du câble de raccordement. Veillez à la bonne orientation des cames de blocage. Serrez les écrous moletés à la main. Des câbles de rallonges de 10 m, 20 m et 50 m sont disponibles.

### Ajustage / étalonnage

Les capteurs sont ajustés en usine. En fonction de l'utilisation, nous recommandons un étalonnage après environ un an. Vous pouvez réaliser l'étalonnage vous-même sur place à l'aide des étalons d'humidité ROTRONIC SCS. Pour l'utilisation, veuillez vous référer aux instructions accompagnant les étalons d'humidité. Pour l'ajustage, contactez ROTRONIC ou notre représentant.

Vous trouverez de plus amples informations sous [www.rotronic.com](http://www.rotronic.com)

**Raccordements électriques:** 1 vert V+  
 (aspect extérieure) 2 gris GND (numérique et alim.)  
 3 rouge RXD (UART)  
 4 bleu TXD (UART)  
 5 blanc Signal analogique  
 (0...100 %HR)  
 6 brun Signal analogique  
 (-40...60 °C)  
 7 jaune AGND (analog ground)



# ROTRONIC HYGROCLIP® XD

Il Vostro ROTRONIC HygroClip XD è un prodotto di qualità, realizzato in conformità con le normative del settore. Seguendo le istruzioni di montaggio ed uso sotto riportate, il Vostro HygroClip lavora al massimo delle prestazioni per anni.

**Range operativo umidità:** 0...100 %UR  
**Range operativo temperatura:**  
 XDxxA-xxx -40...85 °C  
 XDxx-xCxxxx -100...190 °C / 200 °C \*

\* Picco massimo per breve periodo durante 100 h

## Range di misura standard:

### I parametri sono scalabili

Umidità: 0...100 %UR = 0...1 V  
 Temperatura: -40...60 °C = 0...1 V  
 Punto di rugiada / di ghiaccio: Configurabile con PC e software HW4

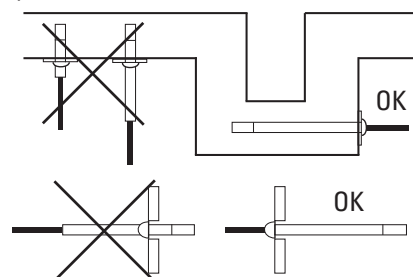
### Dati tecnici:

Alimentazione: 5...16 VAC / 5...24 VDC (0...1 V)  
 13...16 VAC / 16...24 VDC  
 (tutte le versioni di uscita)  
 Consumo di corrente: ~7 mA @ 24 VDC / ~15 mA @ 5 VDC  
 Carico in uscita: 1 kΩ/V  
 Lunghezza cavo: max. 5 m  
 Protezione: IP65 (eccetto la sezione sensore)  
 Uscite analogiche: 0...1 VDC / 0...5 VDC / 0...10 VDC  
 0...20 mA / 4...20 mA (sensore depositato)

**Precisione a 23 °C ±5 K:** ±0,8 %UR / ±0,2 K

### Montaggio:

Immergere il più possibile la sonda nel mezzo da misurare.



### Collegamento

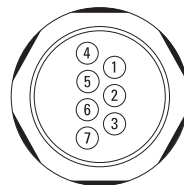
Inserire l'HygroClip XD sul connettore relativo del cavo di allacciamento. Controllare che i nottolini di blocco siano correttamente posizionati. Serbare a mano i dadi zigrinati. Sono fornibili cavi di prolunga con lunghezze di: 10, 20, 50m.

### Regolazione / calibrazione

Le sonde sono regolate in fabbrica. Raccomandiamo di eseguire dopo circa un anno una nuova calibrazione, a seconda dell'uso. Questo intervento può essere eseguito personalmente utilizzando gli standard di umidità ROTRONIC SCS. Per l'utilizzo, si prega di fare riferimento alle istruzioni allegate agli standard di umidità. Contattare ROTRONIC o i rappresentanti locali per eventuali consigli sulla procedura di calibrazione.

Ulteriori informazioni all'indirizzo [www.rotronic.com](http://www.rotronic.com)

**Connessioni elettriche:** 1 verde V+  
 (veduta esteriore) 2 grigio GND (digitale e alimentazione)  
 3 rosso RXD (UART)  
 4 blu TXD (UART)  
 5 bianco Segnale analogico umidità  
 (0...100 %UR)  
 6 marrone Segnale analogico temperatura  
 (-40...60 °C)  
 7 giallo AGND (massa segnali analogici)



**ROTRONIC AG**, CH-8303 Bassersdorf  
 Tel. +41 44 838 11 44, [www.rotronic.com](http://www.rotronic.com)  
**ROTRONIC Messgeräte GmbH**, D-76275 Ettlingen  
 Tel. +49 7243 383 250, [www.rotronic.de](http://www.rotronic.de)  
**ROTRONIC SARL**, 56, F-77183 Croissy Beaubourg  
 Tél. +33 1 60 95 07 10, [www.rotronic.fr](http://www.rotronic.fr)  
**ROTRONIC Italia srl**, I-20157 Milano  
 Tel. +39 2 39 00 71 90, [www.rotronic.it](http://www.rotronic.it)  
**ROTRONIC Instruments (UK) Ltd**, West Sussex RH10 9EE  
 Phone +44 1293 571000, [www.rotronic.co.uk](http://www.rotronic.co.uk)

**ROTRONIC Instrument Corp**, NY 11788, USA  
 Phone +1 631 427-3898, [www.rotronic-usa.com](http://www.rotronic-usa.com)  
**ROTRONIC Canada Inc.**, Canada L8W 3P7  
 Phone +1 905 754 5164, [www.rotronic.ca](http://www.rotronic.ca)  
**ROTRONIC Instruments Pte. Ltd.**, Singapore 159836  
 Phone +65 6376 2107, [www.rotronic.sg](http://www.rotronic.sg)  
**ROTRONIC Shanghai Rep. Office**, Shanghai 200233, China  
 Phone +86 40 08162018, [www.rotronic.cn](http://www.rotronic.cn)