

## ROTRONIC HygroClip® HC2-xx

Mit dem ROTRONIC HygroClip HC2 haben Sie ein Spitzenprodukt erworben, das den gängigen Normen entspricht. Bei Beachtung der unten aufgeführten Montage- und Bedienungshinweise funktioniert der HygroClip über Jahre perfekt.

<b>Einsatzbereich Feuchte:</b>	0...100 %rF
<b>Einsatzbereich Temperatur:</b>	
HC2-S(3), HC2-S(3)H, HC2-S(3)-HEATED, HC2-SM	-50...100 °C
HC2-HK25/40, HC2-ICxx, HC2-IMxx(-M), HC2-IExx(-M)	-100...200 °C*

\* Kurzzeitige Spitzenbelastung

### 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:	3,3...5 VDC $\pm 0\%$ / ca. 4 mA justiert bei 3,3 VDC HEATED: 3,3 VDC / <35 mA
Ausgangsbürde:	>10 k $\Omega$
Kabellänge:	max. 5 m
Schutzart:	IP65 (ausser Sensorbereich)
Ausgänge:	Analog: 2 x 0...1 VDC, UART Schnittstelle 1. Messwert nach 1,5 s, Messintervall 1 s

<b>Genauigkeit bei 10...30 °C:</b>	$\pm 0,8\%$ rF / $\pm 0,1$ K $\pm 1,3\%$ rF / $\pm 0,15$ K (HC2-S-HEATED)
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### \*\* Anschluss

Setzen Sie den HygroClip auf den Gegenstecker des Messumformers oder des Anschlusskabels. Achten Sie darauf, dass die Sperrnocken richtig ausgerichtet sind. Ziehen Sie die Rändelmutter von Hand fest. HEATED Kombinierbar: - HF5 / HF8 (3/4 Leiter) - MP102H - AC3001

### Messresultate HC2-S(3)-HEATED

Der Messwert wird alle 5 Minuten während einer Minute aktualisiert. Der gesamte Zyklus (Messen 1 min, Heizen 1 min und Abkühlen 4 min) dauert daher 6 Minuten.

### Justierung / Kalibrierung

Die Fühler sind ab Werk justiert. Wir empfehlen je nach Einsatz eine Kalibrierung nach 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)

## ROTRONIC HygroClip® HC2-xx

Your ROTRONIC HygroClip HC2 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.

<b>Operating range humidity:</b>	0...100 %RH
<b>Operating range temperature:</b>	
HC2-S(3), HC2-S(3)H, HC2-S(3)-HEATED, HC2-SM	-50...100 °C
HC2-HK25/40, HC2-ICxx, HC2-IMxx(-M), HC2-IExx(-M)	-100...200 °C*

\* Short term peak load

### 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:	3.3...5 VDC $\pm 0\%$ / approx. 4 mA adjusted at 3.3 VDC HEATED: 3,3 VDC / <35 mA
Load:	>10 k $\Omega$
Cable length:	max. 5 m
Protection rating:	IP65 (except sensor area)
Outputs:	Analog: 2 x 0...1 VDC, UART interface 1st measurement value after 1.5 s measurement interval 1 s

<b>Precision at 10...30 °C:</b>	$\pm 0,8\%$ RH / $\pm 0,1$ K $\pm 1,3\%$ RH / $\pm 0,15$ K (HC2-S-HEATED)
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### \*\* Connection

Plug the HygroClip on the mating connector of the transmitter or connection cable. Make sure that the catches are aligned correctly. Tighten the knurled nut by hand.

Compatible products HEATED: - HF5 / HF8 (3/4-wire) - MP102H - AC3001

### Measuring results HC2-S(3)-HEATED

The measured value is updated every 5 minutes for one minute. The whole cycle (measuring 1 min, heating 1 min and cooling 4 min) therefore takes 6 minutes.

### Adjustment / Calibration

The probes are adjusted in our factory before delivery. We recommend calibration after 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.

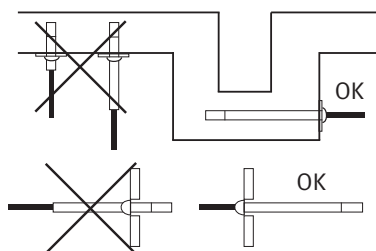
Further information can be obtained at [www.rotronic.com](http://www.rotronic.com)

### Montage

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

### Mounting

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

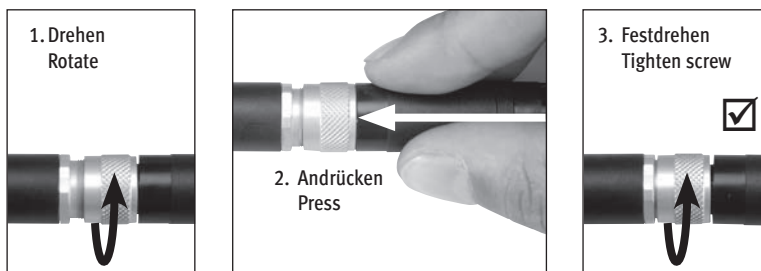


### \*\* HINWEIS:

Nur richtig und fest montierte Verbindungen erfüllen den IP(xx)-Schutz.

### \*\* Attention:

Only properly assembled and fixed connections meet the IP(xx) protection.



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## ROTRONIC HygroCLIP® HC2-xx

En achetant le ROTRONIC HygroClip HC2, 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.

<b>Gamme d'utilisation (humidité):</b>	0...100 %HR
<b>Gamme d'utilisation (température):</b>	
HC2-S(3), HC2-S(3)H, HC2-S(3)-HEATED, HC2-SM	-50...100 °C
HC2-HK25/40, HC2-ICxx, HC2-IMxx(-M), HC2-IExx(-M)	-100...200 °C*
*Pointe de charge de courte durée	

### 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:	3,3...5 VCC ± 0 % / env. 4 mA ajusté à 3,3 VCC HEATED: 3,3 VDC / <35 mA
Charge de sortie:	>10 kΩ
Longueur de câble:	max. 5 m
Protection:	IP65 (sauf zone d'élément sensible)
Sorties:	Analogique: 2 x 0...1 VCC, interface UART 1ère mesure après 1,5 s intervalle de mesure 1 s

<b>Précision à 10...30 °C:</b>	±0,8 %HR / ±0,1 K ±1,3 %HR / ±0,15 K (HC2-S-HEATED)
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### \*\* Raccordement

Placez l'HygroClip sur la contre-fiche du transmetteur de mesure ou du câble de raccordement. Veillez à la bonne orientation des cames de blocage. Serrez les écrous moletés à la main.

HEATED produit complémentaire: - HF5 / HF8 (3/4 conducteurs)  
- MP102H - AC3001

### Résultat de mesure de l'HC2-S (3)-HEATED

La valeur de mesure est actualisée toutes les 5 minutes pendant 1 minute. Le cycle total dure 6 minutes (mesure 1 minute, chauffage 1 minute et refroidissement 4 minutes).

### Ajustage / étalonnage

Les capteurs sont ajustés en usine. En fonction de l'utilisation, nous recommandons un étalonnage après 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)

## ROTRONIC HygroCLIP® HC2-xx

Il Vostro ROTRONIC HygroClip HC2 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.

<b>Range operativo umidità:</b>	0...100 %UR
<b>Range operativo temperatura:</b>	
HC2-S(3), HC2-S(3)H, HC2-S(3)-HEATED, HC2-SM	-50...100 °C
HC2-HK25/40, HC2-ICxx, HC2-IMxx(-M), HC2-IExx(-M)	-100...200 °C*
*Picco massimo per breve periodo	

### 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:	3,3...5 VDC ± 0 % / ca. 4 mA corregger a 3,3 VDC HEATED: 3,3 VDC / <35 mA
Carico in uscita:	>10 kΩ
Lunghezza cavo:	max. 5 m
Protezione:	IP65 (eccetto la sezione sensore)
Uscite:	Analogica: 2 x 0...1 VDC, interfaccia UART 1° valore di misura dopo 1,5 s intervallo di misura 1 s

<b>Precisione a 10...30 °C:</b>	±0,8 %UR / ±0,1 K ±1,3 %UR / ±0,15 K (HC2-S-HEATED)
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### \*\* Collegamento

Inserire l'HygroClip sul connettore relativo del trasmettitore o del cavo di allacciamento. Controllare che i noddolini di blocco siano correttamente posizionati. Serrare a mano i dadi zigrinati.

HEATED abbinabile a - HF5 / HF8 (3/4 fili) - MP102H - AC3001

### Risultati di misura HC2-S (3)-HEATED

Il valore misurato viene aggiornato ogni 5 minuti per un minuto. L'intero ciclo (1 minuto di misura, 1 minuto di riscaldamento e 4 di raffreddamento) dura 6 minuti.

### Regolazione / calibrazione

Le sonde sono regolate in fabbrica. Raccomandiamo di eseguire dopo 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.

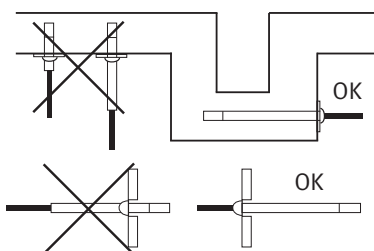
Ulteriori informazioni all'indirizzo [www.rotronic.com](http://www.rotronic.com)

### Montage:

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

### Montaggio:

Immergere il più possibile la sonda nel mezzo da misurare.

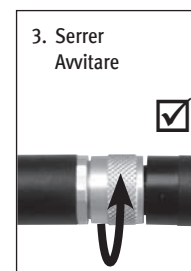
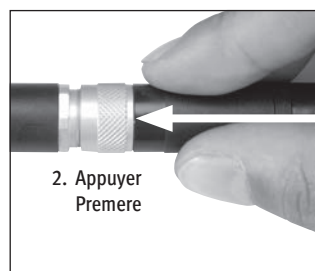
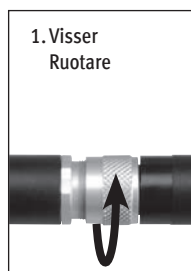


### \*\* ATTENTION:

Seule des connexions correctement assemblées, garantissent la protection de l'IP(xx).

### \*\* NOTA:

Solo un corretto assemblaggio assicura il rispetto delle norme di protezione IP(xx).



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