

## SYSTEM OVERVIEW

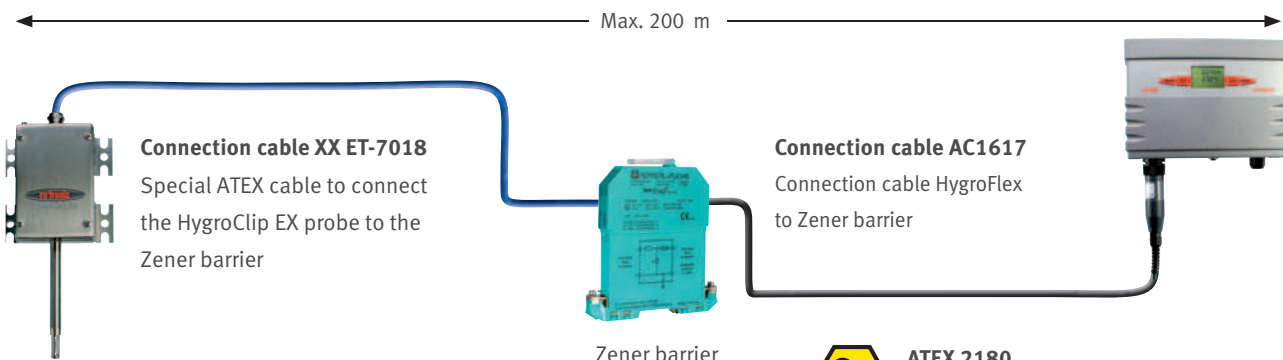
Regardless of the ATEX safety class required, the ROTRONIC ATEX measuring system consists of an intrinsically safe HygroClip EX probe and a Zener barrier (only one analog output 4...20 mA for temperature or humidity measurement). If both humidity and temperature measurements are required, a transmitter and connection cable must be used (digital signal).

### HYGROCLIP EX PROBES

- Intrinsically Safe probes
- Measure relative humidity & temperature
- Accuracy at 23 °C ±5 K: ±1 %RH / ±0.3 K
- Range of application electronics: -40...40 °C
- Temperature of medium at probe: max. -40...80 °C for ATEX applications, max. -50...200 °C for non-ATEX applications

### HTSXX TRANSMITTERS

- Transmitters for interchangeable HygroClip EX probes
- Display the humidity and temperature or the calculated value
- Up to 3 analog outputs
- Range of application electronics: -40...60 °C



ATEX 2180  
Directive 94/9/EC

### Applications

Zone 0/20 T5	Zone 1/21 T6	Zone 1/21 T6	Safe zone Zener barrier or galvanic isolation
Class II, Division 1 Group E, F, G	Class I, Division 1 Group A, B, C, D	HygroClip IC-1-EX ⊗ II 1 G EEx ia IIC T5 resp. II 2 G EEx ia IC T6 ⊗ II 1/2 D IP6X T 80 °C	
		HygroClip IE-1-EX ⊗ II 1 G EEx ia IIC T5 resp. II 2 G EEx ia IC T ⊗ II 1/2 D IP6X T 80 °C	
Only the sinter filter may be used in zone 20/21		HygroClip ID-EX ⊗ II 1 G EEx ia IIC T5 resp. II 2 G EEx ia IC T ⊗ II 1/2 D IP6X T 80 °C	
Only the sinter filter may be used in zone 21		HygroClip IW-1-EX ⊗ II 1 G EEx ia IIC T5 resp. II 2 G EEx ia IC T6 ⊗ II 2D IP6X T 80 °C	

**Note:**

The total cable length between HygroClip EX probe and HygroFlex transmitter may not exceed 200 m.

HygroClip EX probes may NOT be calibrated in the EX zone because the accessories are not EX-compliant.

## HYGROCLIP EX PROBES

### Features

- Intrinsically Safe probes, ATEX and FM approved
- Power supply via HygroFlex transmitter
- Measures relative humidity & temperature
- Range of application electronics: -40...40 °C  
Medium temperature at probe:  
max. -40...80 °C for ATEX applications  
max. -50...200 °C for non ATEX applications
- Accuracy at 23 °C ±5 K: ±1% RH / ±0.3 K
- Housing: chrome nickel steel, V4A/AISI 316/1.440

### Cable probes

Order code	HygroClip IC-1-EX	HygroClip IC-3-EX
Probe length	Ø 15 x 120 mm	Ø 15 x 270 mm
Cable length	2 m	2 m

### Screw-in probes

Order code	HygroClip IE-1/EX	HygroClip IE-3/EX
Thread	½" G	½" NPT
Cable length	2 m	2 m

### Wall/Duct probes

Order code	HygroClip IW-EX	HygroClip ID-EX
Type	Wall probe	Duct probe
Probe length	Ø 15 x 150 mm	Ø 15 x 250 mm

### COMPATIBLE

- Transmitters HTS series

### INCLUDED

- Factory adjustment certificate
- Instruction manual
- Connection diagram
- Type examination certificate, ATEX and FM

### RECOMMENDED ACCESSORIES

- Connection cable HygroClip-EX Zener barrier (blue)  
ET-7018
- Connection cable HTS to Zener barrier AC1617-ZB/xx  
(For xx = 2, 5, 10, in 5 m steps, max 200 m)
- Zener barrier ZB1, use with HTS
- ZB1-420 Zener barrier for a two-wire system (only temperature or humidity)
- Sintered steel filter SP-S15

HygroClip IC-EX



HygroClip IE/EX



HygroClip IW-EX



HygroClip ID-EX

