

HYGROFLEX5-EX TRANSMITTER



Benefits

- Measures relative humidity and temperature, and calculates psychrometric parameters
- Interchangeable probes
- Available as a wall and duct mount for explosive environments

Applications

- HVAC Heating, ventilation, air conditioning
- Food industry
- Pharmaceutical industry
- Printing and paper industries



Functional display

- Measurement values with trend indicators
- Configuration via keypad possible

Proven housing

- Robust, reliable aluminium housing
- Protection class IP66
- Wall or duct mount possible

Power supply

- 10...28 VDC

Outputs

- The two analogue outputs can be freely selected and scaled
- 2-wire (2 x 4...20 mA)

Interchangeable probes

- Different probes can be connected to suit the application
- Easy calibration of the probes outside the explosive zone

Explosion protection classes (gas and dust)

• Transmitter

- II 2(1) G Ex eb mb [ia Ga] IIC T5 Gb
- II 2(1) D Ex tb [ia Da] IIIC T80 °C Db

• Probes

- HC2-SM-EX
- II 1/2 G Ex ia IIC T5 Ga/Gb
- II 1/2 D Ex ia IIIC T80 °C Da/Db



HC2-IM-EX / HC2-IE-EX

Ex II 1/2 G Ex ia IIC T5-T4 Ga/Gb

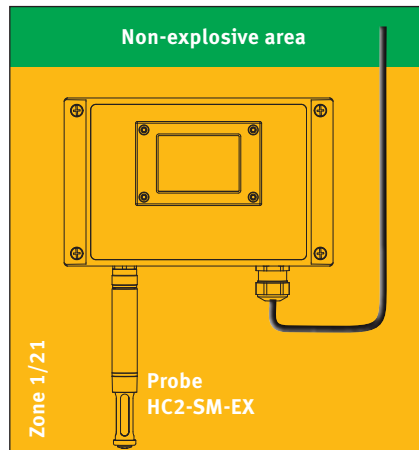
Ex II 1/2 D Ex ia IIIC T80 °C...110 °C Da/Db

Easy configuration

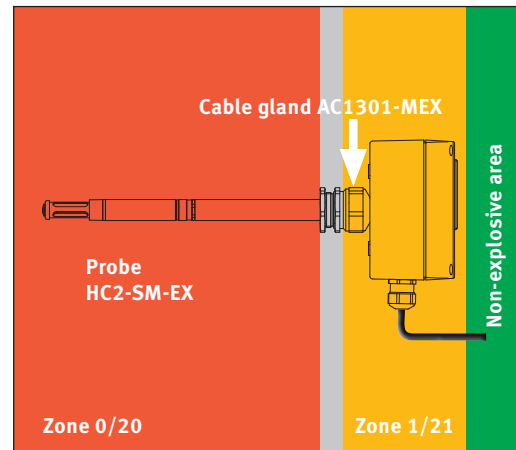
- The configuration can be specified directly when ordering
- Configuration on site is also possible, using the HygroSoft software

Interchangeable stainless steel probes

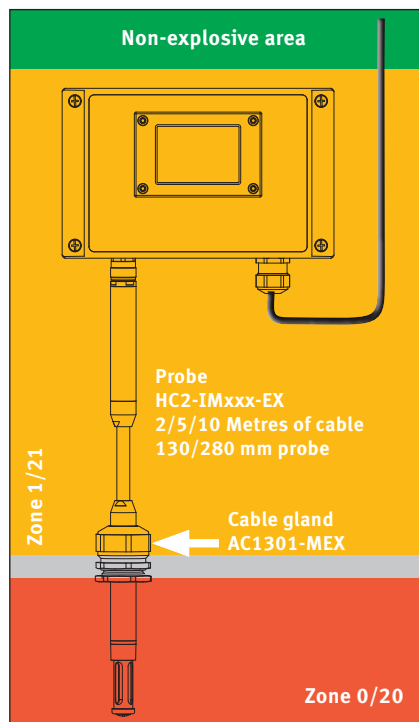
Wall mounting



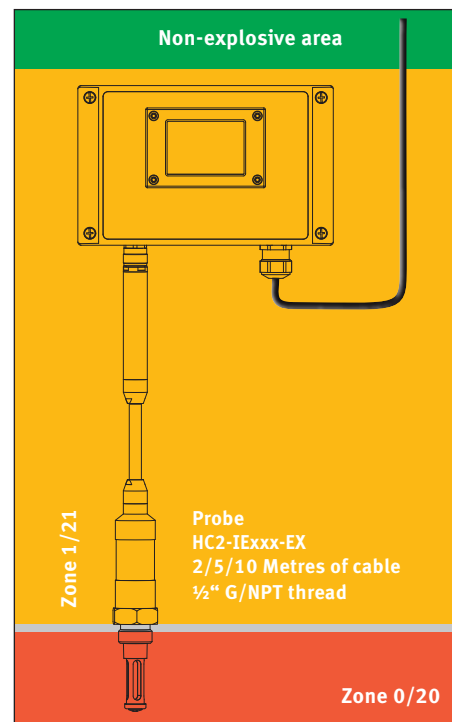
Duct mounting



Cable probe for flexible installation



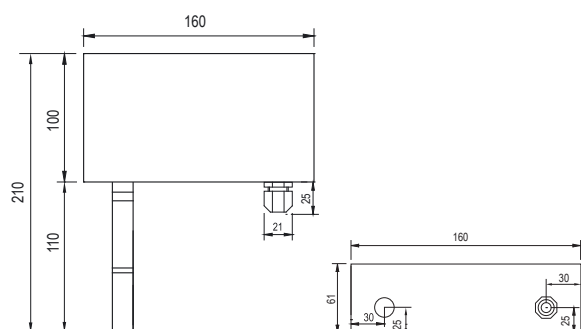
Screw-in cable probe for pressure pipe



Technical information

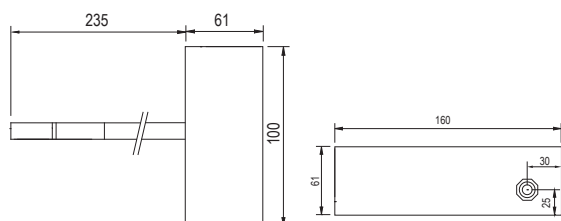
HF520-EX-W

Wall mounted version (W)

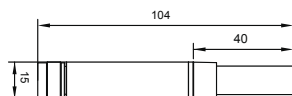


HF520-EX-D

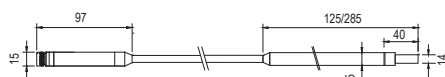
Duct mounted version (D)



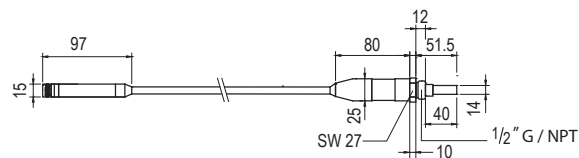
HC2-SM-EX



HC2-IMxxx-EX



HC2-IExxx-EX



Identification EX North America

Class I, Div 1/2, Groups ABCD T5...T4,
Class II, Div 1/2, Groups EFG T80 °C...T110 °C
Ex e mb [ia Ga] IIC T5...T4 Ga/Gb
Ex tb [ia Da] IIIC T80 °C...T110 °C Da/Db
Class I, Zone 0/1, AEx e mb [ia Ga] IIC T5...T4 Ga/Gb
Class II, Zone 20/21, AEx tb [ia Da] IIIC T80 °C...T110 °C Da/Db
Hazardous locations: CSA22.2, UL508

HF520-EX

General	
Parameters	Humidity and temperature
Calculated parameters	All psychrometric parameters available
Housing material / Protection	Aluminium (DIN EN 1706 EN AC-ALSi 12 (Fe)) / IP66
Weight	Wall mounted version: 1030 g Duct mounted version: 1140 g
Start-up time	Standard cold <60 s / warm <30 s
Measurement interval	20...240 s
Display	Optional, LCD without backlight
Electrical connections	Connections: Ex-e terminals (0.2...2.5 mm²) Cable gland: 16 x 1.5 (Ø cable 4.5...7 mm)
Power supply	10...28 VDC
Current Consumption	2x24 mA start up / 2x20 mA operation
Application temperature	-40...60 °C without display
Housing / electronics	-10...60 °C with display
Service interface	UART internal service interface (only to be used outside the explosive zone)
Conformity	CE, UKCA, ATEX, EMC, RoHS
EX Certification	IECEx, UKEX, QPS
EX identification	II 2(1) G Ex eb mb [ia Ga] IIC T5 Gb II 2(1) D Ex tb [ia Da] IIIC T80°C Db
Analogue output	
Number	2
Current	4...20 mA, two-wire
Galvanic isolation	Yes
Maximum load	500 Ohms
Accuracy at 23 °C	<20 uA

HC2-SM-EX / HC2-IM-EX / HC2-IE-EX

General	
Parameters	Humidity and temperature
Housing material / Protection	Stainless steel / IP66
Cable lengths	2/5/10 metres
EX identification	II 1/2 G Ex ia IIC T5 Ga/Gb II 1/2 D Ex ia IIIC T80°C Da/Db
Humidity measurement	
Sensor	HC2-SM/IM/IE-EX: ROTRONIC HYGROMER® IN-1
Adjustment	Not via device menu (only outside the explosive zone with Hygrosoft + AC3001)
Measurement range	0...100 %rh
Accuracy at 23 °C	±0.8 %rh
Temperature measurement	
Sensor	HC2-SM/IM/IE-EX: Pt100 Class A
Measurement range	-40...60 °C (T5) / -40...85 °C (T4)
Accuracy at 23 °C	±0.1 °C
Accessories	
Filters	Steel sinter filter, SP-FN15
Cable gland	AC1301-MEX for duct mounting and cable probes (IM)