HF1 SERIES

The HygroFlex1 series is the latest development in inexpensive HVAC transmitters for relative humidity and temperature. The devices are equipped with the tried-and-tested Hygromer® IN-1 sensor and boast unbeatable value for money. The freely available Rotronic SW21 software enables you to change the output scaling, calibrate the transmitter and adjust the humidity sensor.

FEATURES

- Accuracy: ±3 %RH, ±0.3 K, at 23 °C ±5 K
- Range of application: -20…50 °C / 0…100 %RH
- Small size
- Easy mechanical installation
- USB service interface
- Adjusted at 35 %RH / 80 %RH

POWER SUPPLY

- Low voltage: 2 x 2- or 3-wire

SIGNAL OUTPUTS

- Current output
- Voltage output

VERSIONS

- Space mount version with integrated probe
- Duct version (D)
- Wall version (W)

OUTPUT PARAMETERS

- Humidity & temperature

OUTPUT SCALING

- Relative humidity: range selectable, standard 0…100 %RH
- Temperature: range selectable, standard: 0…50 °C

DISPLAY

- Display with or without backlight
- Without display

HF1 WALL AND DUCT VERSIONS

APPLICATIONS

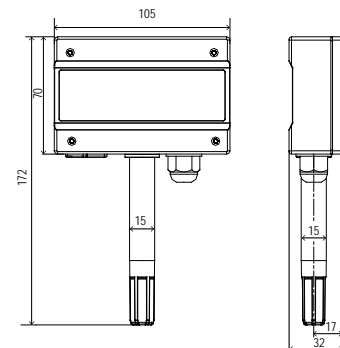Measures relative humidity and temperature in HVAC applications.

2 or 2x2-wire

Order code	HF120
Output signal	4…20 mA
Supply voltage	10…28 VDC
Display	Optional (without backlight)
Temperature range	Scalable
Probes	Not interchangeable Standard, duct probe 100 mm (optional, duct probe 300 mm)
Filter type	Polyethylene

3-wire

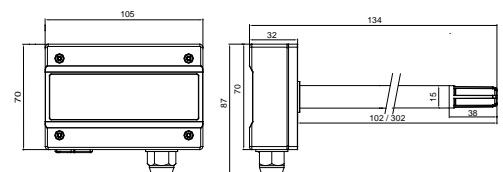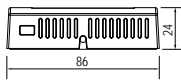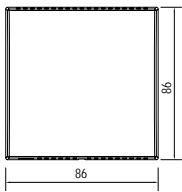| Order code	HF13x
Output signal	0…10 V 4…20 mA Only voltage output can be changed
Supply voltage	15…40 VDC / 12…28 VAC
Display	Optional (without backlight)
Temperature range	Scalable
Probes	Not interchangeable Standard, duct probe 100 mm (optional, duct probe 300 mm)
Filter type	Polyethylene

Wall version

Duct version

COMPATIBLE

• SW21 PC software, see page 197

DELIVERY PACKAGE

• Factory adjustment certificate
• Short instruction manual

RECOMMENDED ACCESSORIES

• USB service cable   AC0003
• Calibration device   ER-15
• Mounting flange   AC5005

HF1 SPACE MOUNT VERSION

APPLICATIONS

Offices or rooms where good looks are important.

2 or 2x2-wire

Order code	HF120
Output signal	4...20 mA
Supply voltage	10...28 VDC
Display	Optional (without backlight)

3-wire

Order code	HF13x
Output signal	0...1 V / 0...5 V / 0...10 V / 4...20 mA Only voltage output can be changed
Supply voltage	15...40 VDC / 12...28 VAC
Display	Optional (with backlight)

Technical data	HF1 Analog 2-wire	HF1 Analog 3-wire
General		
Parameters	Humidity and temperature	
Housing material / IP protection	ABS / IP65, except type S IP20	
Dimensions	105 x 172 x 32 mm (type W), 105 x 87 x 134(334) mm (type D), 86 x 86 x 24 mm (type S)	
Weight	140 g	
Probe connection	Fixed	
Filter material	Polyethylene	
Display	LCD, 1 or 2 decimals, without backlight	LCD, 1 or 2 decimals, with backlight
Electrical connections	Connections: screw terminals inside (type D/W) Cable gland: M16	
Power supply	10...28 VDC	15...40 VDC / 12...28 VAC
Current consumption	2x20 mA max.	‹55 mA (current output) ‹15 mA (voltage output)
Range of application	-20...50 °C / 0...100 %RH (non-condensing)	
Service interface	USB-Mini	
CE / EMC compatibility	EMC Directive 2014/30/EU	
Humidity measurement		
Sensor	ROTRONIC HYGROMER® IN-1	
Measurement range	0...100 %RH	
Accuracy at 23°C ±5 K	±3.0 %RH (10...90 %RH)	
Long-term stability	‹1.5 %RH/year	
Response time	‹30 s τ63 (63 % increase 35...80 %RH) without filter	
Maximum wind velocity	20 m/s with filter	
Temperature measurement		
Sensor	NTC	
Measurement range	-20...50 °C / 0...100 °F	
Accuracy at 23°C ±5 K	±0.3 K (type W, type D), ±1 K (type S)	
Response time	4 s	
Analog output		
Number	2	
Current	4...20 mA	4...20 mA
Voltage	N/A	0...1/5/10 V