

HYGROFLEX1-SERIE

SHORT INSTRUCTION MANUAL

Digital transmitter for humidity & temperature: Space version

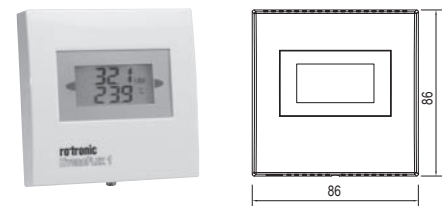
Congratulations on your purchase of the HygroFlex1-Series transmitter.
Please read these short instructions carefully before installing the device.

General description

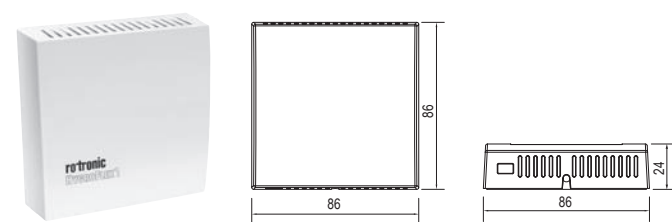
The HygroFlex1-Series devices are universal transmitters for transmission of humidity and (or) temperature measurements. Additional information can be found on the internet at: www.rotronic.com

Dimensions / connections

Type S



Type L



Mechanical installation



Caution:
In order to get correct measurement values, the sensor must be installed in a way that the air flows around the transmitter.

1. Remove the montage plate by drilling out the screws.
2. Mount the mounting plate to the wall by using 2 screws.

Electrical installation



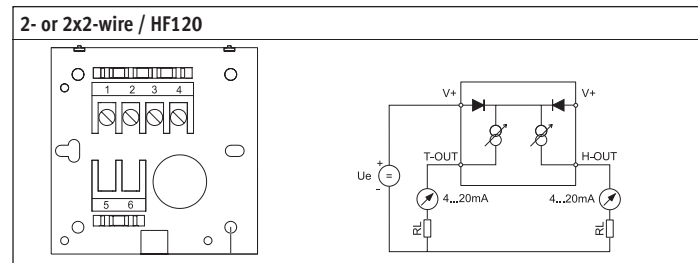
Caution:
Wrong supply voltages and excessively high loading of the outputs can damage the transmitter.

Supply voltage / Technology

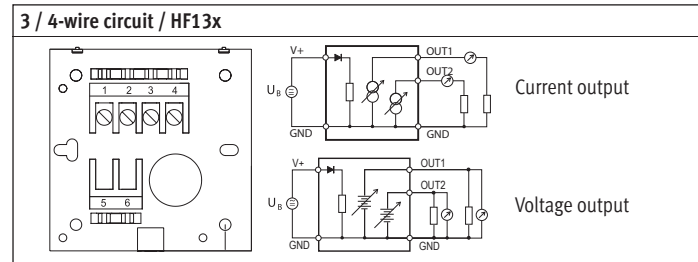
Type	Supply voltage V+	Load	Output
2- or 2x2 wire			
HF120	10...28 VDC: 10 V + (0.02 x load)	Max 500 Ω	4...20 mA
3/4 wire			
HF132	15...40 VDC / 12... 28 VAC	Max 500 Ω	4...20 mA
HF133	15...40 VDC / 12... 28 VAC	Max 500 Ω	0...1 V
HF134	15...40 VDC / 12... 28 VAC	Max 500 Ω	0...5 V
HF135	15...40 VDC / 12... 28 VAC	Max 500 Ω	0...10 V

Terminal configuration / Connection diagrams

The type is defined using the table «Supply voltage / Technology» to then use the following connection diagrams:



Terminal	Schematics	Description
1	V+	Supply voltage +
2	T- OUT	Analogue temperature output
3	V+	Supply voltage +
4	H- OUT	Analogue humidity output



Terminal	Schematics	Description
1	V+	Supply voltage +/Phase
2	GND	GND / Neutral
3	OUT1	Analogue humidity output +
4	OUT2	Analogue temperature output +

Programming

The basic settings of the devices are made in the factory according to your order. The transmitters are adjusted in the factory and therefore do not need to be checked and readjusted during installation. The devices can be started immediately after installation. Using HW4 or SW21 software and a standard mini USB cable, the following operations may be performed.

- Rescaling of the analog outputs
- Single point adjustment
- General settings

Procedure

- Connect the device to the supply voltage
- Connect the device with your PC using the mini-USB cable
- Program the device using HW4 or SW21 software
- Disconnect the device from power for at least two seconds in order to validate the new setting

Sources of error

Measured values can be influenced by the following factors:

Temperature errors

Equilibration time too short, cold outside wall, heating elements, sunlight, etc.

Humidity errors

Steam, water spray, dripping water or condensation at the sensor, etc.

Soiling:

By dust in the air. The choice of probe filter depends on the amount of soiling at the measuring point. The filter must be cleaned or replaced periodically.

Periodic calibration of the transmitter

The humidity and temperature sensor including the corresponding electronics are very stable and do not normally need to be changed or calibrated after factory calibration. The long term stability of the ROTRONIC Hygromer humidity probes is typically better than 1 %RH per year. For maximum accuracy we recommend calibration of the probe about every six to 12 months. More frequent calibration can be necessary in applications where the sensor is exposed to pollutants. The calibration can be performed by the user himself on site or in the laboratory / workshop. For routine calibrations the probe should be checked at one or two points. The **electronics** of the transmitter do not normally require calibration in the field. The electronics cannot be repaired in the field and should be returned to the manufacturer in the case of problems.

Technical data (operation)

Temperature	-20...50 °C
Humidity	0...100 %RH, non-condensing
Accuracy %RH (10...90 %RH)	<3 % RH
Accuracy °C (0...50 °C)	<0.3 °C

Temperature and humidity analogue output scaling

Humidity	0...100 %RH
Temperature	Depends on the order code
Outputs	Current or voltage signals, service interface