ikon·life

sTRH.01

Temperature & Relative Humidity Transmitter

Reliable measurement for your EMS

The **sTRH.01** is a **combined temperature and relative humidity transmitter** suitable for accurate and reliable measurement needs of dedicated sectors.

The measurement data is available on the **RS-485 Modbus** output which eliminates the measurement problems that may arise from transferring analog signals on the field, provides advantages in installation and commissioning, reduces the cost of wiring.
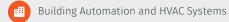
sTRH.01 has an **optional on-site alarm generation** function which avoids logging delays in case of an event occurs. This function can be enabled / disabled remotely.

The measurement range, filter constant alarm parameters, zero-offset and measurement unit can be set and adjusted on site.

In addition to the probe solutions suitable for **duct mounting** in different sizes, the **probe can be extended by cable** and provides ease of installation to the user.

Areas of Use

- Building Automation and HVAC Systems
- Pharmaceutical Industry
- Food & Beverage Industry
- Precision Agriculture
- Laboratories / Test Chambers
- Modbus RS-485 Communication

General

Measuring Values	Humidity & Temperature
Output Type	RS485 Modbus RTU

Relative Humidity Measurement

Measuring Range	0...100 %rH
Accuracy	± 1.8 %rH @ 10-90% typ. 25 ⁰C
Non-Linearity from Response Curve	± 0.15 %rH @ 10-90% typ.
Hysteresis	± 1 %rH max.
Resolution	0.1 %rH
Response Time τ10/90	< 15s at still air
LongTerm Drift	< ± 0.25 %rH / yr max. depends on environment conditions

Temperature Measurement

Measuring Range	-20...+80 ⁰C
Accuracy	± 0.2 ⁰C @ -10...+80 ⁰C typ.
Resolution	0.1 ⁰C
LongTerm Drift	< 0.04 ⁰C / yr

Mechanical

Enclosure	ABS plastic
Probe	Stainless Steel 304
Probe Connection	Fixed to the box / with Cable
Filter Type	PC body, PTFE membrane
Cable Gland	PG7 suitable for cable dia 3 to 6.5 mm
Protection Class Enclosure	IP65
Protection Class Probe	IP40
Enclosure Dimensions	82 x 80 x 56mm
Installation Type	Duct / Wall / DIN Rail
Dimensions	Φ: 15mm L: 30 / 150 / 200 / 300 / 400 mm

Outputs

Type	Digital , isolated 2w RS485
Protocol	Modbus RTU
Baud Rate	9600 ... 156000 bps
Max Nodes on BUS	120
Parameter Setup	Via RS485 (Serial number, Location, Device name, Slave ID, Filter constants, Alarm limits, Calibration parameters etc.)
Isolation	RS485 Output isolated from Supply Voltage & Sensor

Electrical

Supply Voltage	18 ... 35 VDC
Current Consumption	60 mA max @ 24 VDC
Electrical Protection	Reverse polarity

Environmental

Measured Media	Air
Working Temperature for Enclosure	-20 ... +60 ⁰C
Working Conditions for Probe	0 ... 95 %rH non Condense & -20...+80 ⁰C
Storage Temperature	-20 ... +60 ⁰C

Order Options

	sTRH.01.[alarm].[install].[probe conn].[probe lenght]			
[alarm]	[0] - Without alarm option		[1] - With alarm option	
[install]	[01] - Duct	[02] - Wall	[03] - DIN Rail	
[probe conn]	[01] - Fixed to the box	[02] - with Cable		
[probe lenght]	[01] - 30 mm	[02] - 150 mm	[03] - 200 mm	
	[04] - 300 mm	[05] - 400 mm	[06] - Custom specified	

Information subject to change without notice.