

Main Specifications

- ▼ **Body dimension**
81.4 x 81.4 x 20.6mm
- ▼ **Connection**
AWG 16...24
- ▼ **Temperature range**
-20...80°C
- ▼ **Humidity measurement range**
0...95%RH
- ▼ **Temperature scale**
0...50°C / 0...100°C
- ▼ **Screen display (Option)**
1-line / 2-line / 3-line
LCD screen display without backlight
Screen size: 128x64mm
Max. voltage: 30VDC
- ▼ **Physical metric calculations (Option)**
(Td) Dew point temp.
(Tf) Frost point temp.
(R) Mixing ratio
(A) Absolute humidity
(Tw) Wet bulb temperature
(S) Enthalpy
(E) Water vapor pressure
- ▼ **Operating temperature**
-20...80°C (with display)
-20...70°C (without display)
- ▼ **Protection level**
IP20
- ▼ **Electromagnetic compatibility**
Complies with EMC standard EN61326-1, Industrial Environment
- ▼ **Accessories (Option)**
118 to 86 adapter
Configure adapter
86 wall mounting

Other Specifications

- ▼ **Housing material**
ABS
- ▼ **Analog signal output**
4-20mA (2-wire / 3-wire)
0...1V / 5V / 10V (3-wire)
Output accuracy: $\pm 0.1\%$ F.S.
- ▼ **Digital signal output (Option)**
RS485 with Modbus RTU
Baud rate: 9600 / 19200 / 38400 / 57600 / 115200
Data format: N81 / N82 / E81 / E82 / P81 / O82
- ▼ **Transistor output (Option)**
PNP / NPN connection
Max. current: 50 mA
- ▼ **Power supply**
11...35VDC (2-wire)
15...35VDC / 12...29VAC (3-wire)
- ▼ **Power consumption (25°C, V+24VDC)**
40mA (2-wire current output)
30mA (3-wire current output)
10mA (Voltage / RS485)
- ▼ **Temperature accuracy (including non-linearity, hysteresis and repeatability)**
 $\pm 0.4^\circ\text{C}$
- ▼ **Humidity accuracy (including non-linearity, hysteresis and repeatability)**
3%RH@25°C (20...80%RH)
- ▼ **Long time drift**
<0.25%RH (humidity)
<0.02°C/year (temperature)
- ▼ **Response time**
Humidity: 5 sec. (@33...75%RH)
Temp.: 10 sec. (@15...45°C)
- ▼ **Other requests (Option)**
Third party notarized documents
Inspection report
Tag

Indoor Humidity and Temperature Transmitter

Model: THT-S81

Introduction

THT-S81 Indoor humidity and temperature transmitter adopt LCD screen display with capacitive buttons and temperature scale. THT-S81 can measure -20...80°C temp. and 0...95%RH. Optional functions include RS485 Modbus RTU, transistor output, physical metric calculations are available upon requests.



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

Features

- Excellent quality and stable measurement
- LCD display + 3 capacitive buttons (Option)
- Various analog signal output available
- RS485 Modbus RTU protocol with integer and floating type (option)
- PNP / NPN switch output (option)

Accessories



118 to 86 adapter

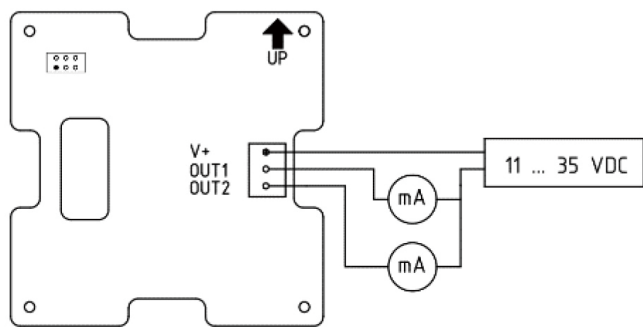


Configure adapter



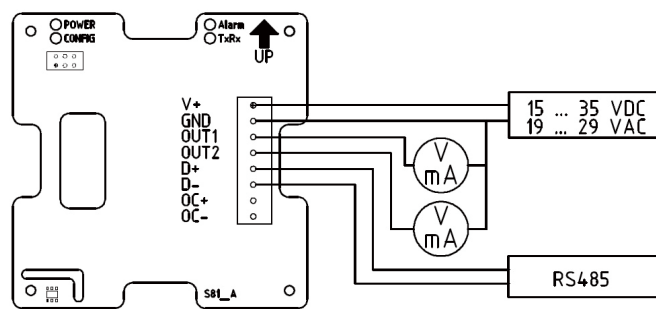
86 wall mounting

2-wire connection diagram

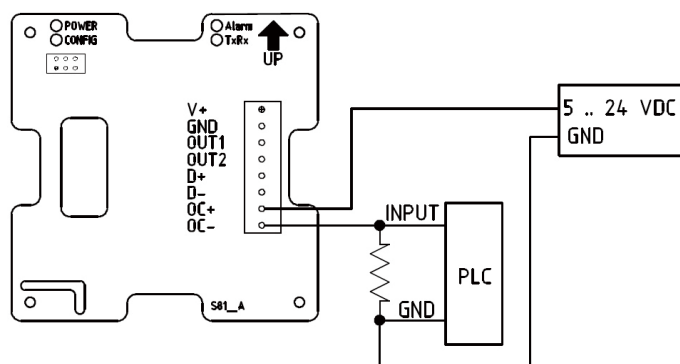


4-20mA

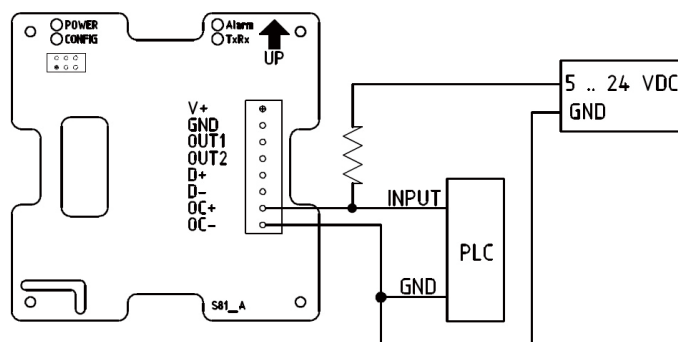
3-wire connection diagram



4-20mA / 0...1V / 0...5V / 0...10V / RS485



PLC PNP



PLC NPN

How to order

THT-S81 Indoor Humidity and Temperature Transmitter									
Std.	Spec.	Code	Item	Code	Item	Code	Item	Code	Item
2mA	Analog signal output	2mA	2-wire 4-20mA	3mA	3-wire 4-20mA	31V	3-wire 0...1V	35V	3-wire 0...5V
		310V	3-wire 0...10V	-	-	-	-	-	-
50	Temperature scale range	50	0...50°C	100	0...100°C	-	-	-	-
Y	Screen display	Y	Yes	N	No	-	-	-	-
Y	Physical metric calculations	Y	Yes	N	No	-	-	-	-
Y	RS485 output	Y	Yes	N	No	-	-	-	-
Y	Transistor output	Y	PNP / NPN	N	No	-	-	-	-
/B	Other requests	/A	Third party notarized document						
		/B	Inspection report (issued by Re-Atlantis)						
		/C	Tag						

Order example: THT-S81 - 2mA - 50 - Y - Y - Y - Y - /B