Thermo hygrometer probe option: barometer and data recorder

SAi60

- ***Ambient temperature and humidity probe***
- ***Barometer*** *(atmospheric pressure)*
- ***Recording and export data*** *(Excel format)*
  - *Graphics display on Web server*
- ***Communication:***
  - *Modbus TCP (Ethernet) 6 concurrent connections*
  - *Embedded Web Server*
  - *SNMP*
  - *Send alarms email, SMTP protocol*
- ***Powered by the Ethernet switch***
  Power over Ethernet (POE)
- ***High visibility LCD display (OLED)***
- ***Configurable sound alarm with internal buzzer***
- ***Applications:***
  - *Clean room, calibration laboratories,*
  - *museums and exhibition halls,*
  - *data center, warehouses,*
  - *air-conditioned room, ambient probes*
- ***Optional remote sensors***
  - *Humidity and temperature sensor with up to 10m cable length*

SAi60 is a room sensor for traceability applications of controlled atmosphere rooms. Connected to the local network, this probe provide data measurements via Modbus / TCP or SNMP and can send alarms emails.

SPECIFICATIONS

Measures:
- Room temperature and relative humidity, and atmospheric pressure in option.

Feature:
- Wall mounting (perforated plastic case).
- Conformal coating.
- protection (housing / terminals): IP20.
- DIN rail mounting with specific adapter.

Front panel / configuration:
- 2 lines of 8 characters LCD display
display temperature, humidity (local and optional remote probe)
-Three keys keyboard allowing:
  The communication configuration (IP address and mask).
  The measures adjustment (RH, T ° and pressure offset).

Serial link:
The device is also configurable via the serial link (USB cable - 3.5mm jack supplied separately).
The serial link allows also the firmware updating.

Communication:
Ethernet 10/100 T Base (RJ45).
power over Ethernet (PoE) IEEE802.3af compliant.
Supported protocols: Modbus-TCP, SNMP, SMTP, Web server.

Qualification test:
- Excellent lifetime, about 1000 h, under extreme conditions (temperature 60 ° C, humidity 93%).
- Return time approximately 10 seconds (After 150 hours condensation).
- humidity hysteresis <+ / -1.5%.
- Long term stability better than 0.5% / year.
- Linearity better than 2% over the range of 10% to 90% RH

Remote sensor (optional):
- Allows local and remote measurement of temperature and humidity.
- Reference : **SHL10jk**
cable length up to 10 meters (5 meters in standard) connects to the serial port (3.5mm jack).
Mounting option: JPC flange
(for attachment to air duct or through panel mounting)

PoE injector:
- For Switch without PoE, we provide a PoE injector conforms to IEEE 802.3af

Version and order code:

Sai60-HRT : Ambient temperature and relative humidity
Sai60-HR : Ambient relative humidity
Sai60-T : Ambient temperature
Power over Ethernet (POE) supply. Requires a PoE Switch or POE injector

Option : **/Pa** : atmospheric pressure measure (barometer)
/Log : Recording onto 1 month (2 minutes rate).

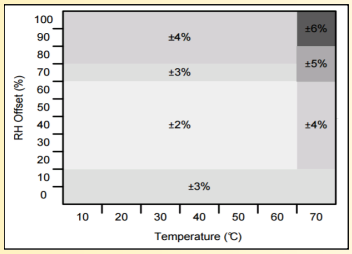
SHL10jk: optional remote sensor (temperature and humidity)
option **-JPC :** air duct mounting flange.

90 days accuracy (20 °C +/- 2 °C) *DATA SHEET CAN BE DOWNLOADED ON* WWW.LOREME.FR

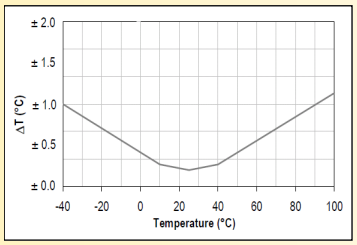
TECHNICAL SPECIFICATIONS

MEASURE

Relative Humidity (%)
0 ...100% RH not condensate
Accuracy:



Temperature
20 .....+80 ° C
Accuracy:



Response time T° and RH	15 seconds typical (63%)
Repeatability	+/- 0.1% ; +/- 0.1 °C
Linearity	<0.2%
Hysteresis	+/- 1% RH
Long-term stability	+/- 0.25% RH/ year; +/- 0.04 °C / year
Atmospheric pressure	50 kPa ..... 115 kPa
Accuracy	+/- 1 kPa

COMMUNICATION

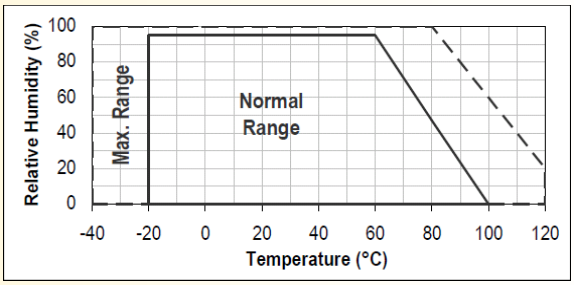
Ethernet 10/100 base T (connexion RJ45)
protocols : Modbus-TCP, SNMP, Web server.

POWER SUPPLY

power supply via PoE (power over Ethernet)
from 36 Vdc to 57 Vdc according to IEEE802.3af
Optional external power supply : 10 to 35 Vdc (1 watt)

ENVIRONMENT

Operating temperature:	-20 °C / +80 °C
Storage temperature:	-40 °C / +85 °C
drift	~ 0.05 % / ° C (RH measure)
Humidity	85% non condensing
Weight	~ 100 gr.
Protection	IP20

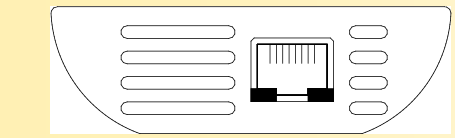


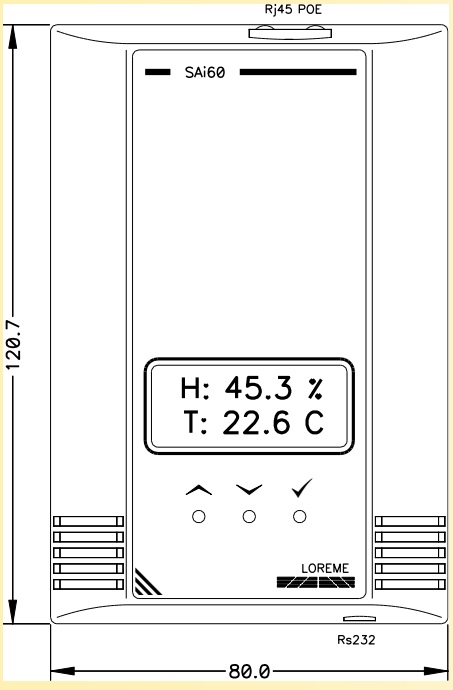
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

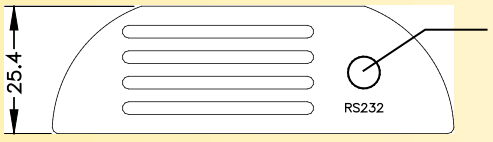
Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	*EN 61000-4-8 AC MF*	*EN 55011 group 1 class A*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	
EN 61000-4-5 CWG	*EN 61000-4-12 ring wave*	
EN 61000-4-6 RF	*EN 61000-4-29 DC dips*	

CE

WIRING AND OUTLINE DIMENSIONS

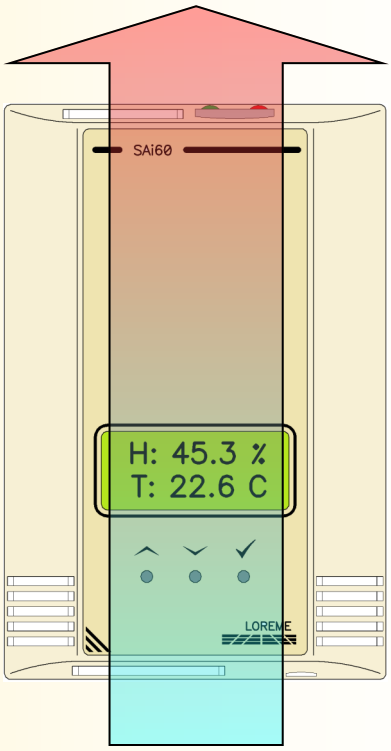






Serial link
or
remote sensor
link (SHL10jk)

MOUNTING RECOMMENDATIONS



Install the probe vertically. Do not block any ventilation holes to ensure a free air flow.

Failure to do this may affect the measurement accuracy.

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