SACI	S.A DE CONSTRUCCIONES INDUSTRIALES

AC VOLTAGE MEASUREMENT TRANSDUCER ATS1P

DESCRIPTION

ATS1P transducer measures temperature from a PT100 probe and outputs a proportional dc analogue current or voltage. The analogue output is isolated from the input signal. The transducer is locally supplied with an isolated universal power supply. This transducer incorporates communications ports RS485 and USB, for configuration and data reading.

SAFETY INDICATIONS ⚠

Before installing the transducer read this instruction manual completely.

- Serious injury, or fire hazard could result from improper connection of this instrument. Installation and mounting of this instrument must be performed by qualified personnel only.

- Do not connect the transducer without disconnecting mains voltage. Avoid field work unless another person can assist you
- If the equipment is handled in a way not specified by the manufacturer, the equipment's protection may be compromised.
- Do not use the transducer if its plastic case is damaged and return it to your supplier. The transducer must not be opened. No preventive maintenance is required. In case of failure it must be sent to our facilities for repair and calibration.
-The transducer does not have a circuit breaker, so one must be provided in the main installation. A circuit breaker and a fuse (gl or M) between 0.5 and 2 A must be used on the DC voltage and power inputs
- Do not use the transducer in explosive atmospheres, or in humid environments with possibility of condensation.

MOUNTING INSTRUCTIONS

This unit must be installed inside an electrical cabinet, so that the temperature and humidity do not exceed the working limits.

The plastic case is designed to be mounted in DIN rail of 35 mm x 7,5 mm. To release it from the rail, pull the clip and extract the transducer from the rail.

CONNECTION

The transducer is connected via screw terminals. The connection must be made according to its wiring diagram, indicated on the transducer label.

CONFIGURATION

The following parameters can be settled in the ATS1P transducer through communication ports. When configuring through USB it is not necessary to supply the transducer, it is necessary when configuring through RS485

Communications:

-Baud rate and MODBUS Identity.

Output:

-Initial and final values of analogue output expressed as percentages of nominal input.

For transducer setting it is available the software tool **"ATx Suite"** and the **"USER MANUAL ATS1P ATS2P.pdf",** both in "www.saci.es"

Factory configuration is:

Serial ports: ID = 1; baud rate 9600.

Io: 4..20 mA. 0..100% 0..200º C.

With the transducer we attach a sticker for recording modifications of configuration.

TECHNICAL FEATURES:

GENERALS:

Accuracy

From 0 to 200º 0.2%

From -50 to 0º and 200 to 250º 0.5%

Isolation 3.7 kV, 50Hz 1 min.

Installation category III 300.

Pollution degree 2

Protection IP50, IK08

Available IP51 cover

Reference temperature: 23ºC± 1ºC

Operating: -10..55º C

Storage: -30..70º C

STANDARD INPUT

Pt100 sensor.

ANALOG OUTPUT

Zero and Span values settable.

Isolated from signal input, power supply and RS485 port. Not isolated from USB port.

Standard values

Current output: 4..20 mA and 0..5 mA

Voltage output: 0..10 V

Other values under request.

Ro (kΩ) = 12 / Io (mA) Max. For mA.

Ro (kΩ) = Vo / 2.5 mA Min. For V.

Saturation limit: <25 mA

Open circuit maximum voltage 16 V

SERIAL PORT

RS485 and USB serial port (isolated from each other and from power supply and analogue output)

MODBUS/RTU protocol.

Settable parameters through serial port:

MODBUS Identity, default 1

Baud rate, 2400, 4800, 9600 and 19200, default 9600.

Analog output configuration.

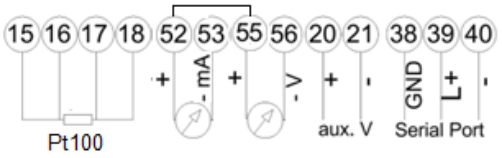
AUXILIARY SUPPLY:

Universal power supply

Voltage: 40..275 V ~ ac dc. 50–60 Hz

Burden: 4..5 VA. 2..2.5 W.

CONNECTION DIAGRAM



USB port in front of transducer.

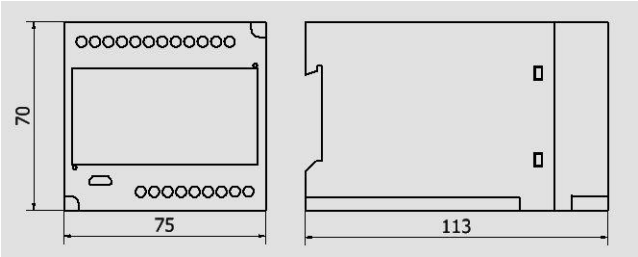
DIMENSIONS

High: 70 mm.

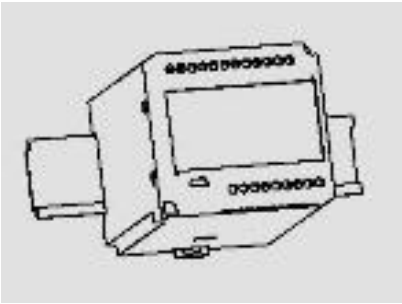
Width: 75 mm.

Depth: 113 mm.

Wire diameter: up to 2.5 mm



DIN RAIL INSTALLATION



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